

Planning Application Submission – February 2014

Transport Assessment

Consultant: Mayer Brown

Latchmere House – Scheme 2



**LATCHMERE HOUSE – SCHEME 2
CHURCH ROAD, HAM**

Transport Assessment

February 2014

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**Latchmere House – Scheme 2
Church Road, Ham**

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1.0 INTRODUCTION

- 1.1 This Transport Assessment (TA) has been prepared on behalf of Berkeley Homes (Central London) Ltd. to support the proposed planning application for a residential development of 89 residential units at Latchmere House, Church Road, Ham.
- 1.2 The site was formally in use as a prison and remand centre and the proposals are to redevelop the prison site to provide 89 residential units, retaining the existing Latchmere House building.
- 1.3 The site location in relation to the regional and local highway network is shown on Figures 1.1 and 1.2 respectively.
- 1.4 The scope of this TA has been outlined in the Scoping Report dated 13th August 2013, and through various discussions and meetings with the London Borough of Richmond upon Thames (LBRuT) and Royal Borough of Kingston upon Thames (RBKuT).
- 1.1 A Travel Plan for the proposed development site will be produced to inform residents of the local transport choices and promote non-car modes of transport. A Residential Travel Plan Framework will be submitted separately as part of the planning application submission.
- 1.2 This report examines the potential impact of the proposed development in terms of highways and transportation, in accordance with the agreed scope. The remainder of the TA contains the following sections:
- Site Description and Accessibility
 - Planning Policy
 - Development Proposals
 - Trip Analysis/Impact
 - Summary and Conclusions

2.0 SITE DESCRIPTION AND ACCESSIBILITY

Site Description

- 2.1 The site is located on Church Road in Ham, approximately 4.3km to the south of Richmond town centre and 2.9km to the north of Kingston town centre, in a residential area adjacent to Richmond Park and Ham Common. The site was previously in use as a remand centre with a C2A use class.
- 2.2 The site covers an area of approximately 3.6ha and includes Latchmere House, a 19th century residential property, which is located on the northern part of the site and has been designated as a Building of Townscape Merit.
- 2.3 Residential dwellings border the site to the south, east and west, consisting mainly of 1930's / post-war semi-detached or terraced houses.
- 2.4 Access to the site is gained from the existing access on Church Road, adjacent to the junction with Latchmere Road to the east, which also serves Latchmere Close and Bainbridge Close.
- 2.5 The site is roughly "L" shaped and is bordered by Church Road, Latchmere Lane and Latchmere Close. The highway layout surrounding the site is as follows:
- Church Road borders the north of the site and runs in an east-west alignment. Church Road is semi-rural in nature with limited pedestrian facilities and a 30mph speed limit.



Photo 2.1: Church Road Looking East and West from Site Access

- Latchmere Lane is residential nature, with regular street lighting and footways. Latchmere Lane has a 20mph speed limit and a priority give-way feature for southbound vehicles at the junction with Church Road.

- The site access serves the site, Latchmere Close and Bainbridge Close. This is privately owned and not public highway with no through-route for traffic. The existing site access has generous visibility splays beyond the minimum requirements of 2.4m x 43m for a 30 mph speed limit recommended by Manual for Streets (published by the DfT), as illustrated at Figure 2.1.

2.6 There is an existing pedestrian access route into the site from the south via Anne Boleyn Walk and Latchmere Close.

2.7 There are numerous shops and services located approximately 300m to the south of the site along Tudor Drive including a newsagent, post office, small supermarket, pharmacy, restaurant, dry cleaners and a small GP surgery. These shops and services form the Tudor Drive Local Centre, in close proximity of which is a pub, library and community hall.

2.8 There are numerous schools located in the site's local area including Tiffin Girls School (600m to the southwest), Fern Hill Primary School (650m to the south) and Latchmere Junior School, Latchmere Infant School and St Agatha's Catholic Primary School (all located 680m to the southeast).

2.9 As mentioned previously, the site is located near to Ham Common and Richmond Park, both of which offer excellent recreational opportunities for local walkers and cyclists.

2.10 The local shops, services and recreational facilities outlined above greatly benefit the sustainability of the site and will encourage residents to keep car journeys from the site to a minimum, as well as reduce the volume of long distance trips from the site.

Bus Accessibility

2.11 The closest bus stop to the site, The Cardinal, is located approximately 300m to the south of the site on Tudor Drive.

2.12 There are 3 other bus stops located within an easy walking distance of the site of 640m (an 8 minute walk assuming an average leisurely walking speed of 80m/min):

- Barnfield Avenue, Tudor Drive – Approx. 600m walk
- Latchmere Lane, Tudor Drive – Approx. 620m walk
- Cardinal Av, Cardinal Avenue – Approx. 640m walk

2.13 The bus services available from the above stops have been summarised in the following table:

Bus #	Route	Weekday Peak Frequency		Weekend Peak Frequency	
		AM	PM	Sat	Sun
371	Kingston Hall Road – Eden Street – Cromwell Road Bus Station – Tiffin School / London Road – Norbiton Church – Gordon Road – Audric Close – Alexandra Road – Wyndham Road / Kingston – Latchmere Road / Park Road – Wingfield Road – Latchmere Lane – The Cardinal – Barnfield Avenue – Richmond Road / Dukes Avenue – Dysart Avenue – Lock Road Mariner Gardens – Ashburnham Road – Ham Street – Clifford Road – Petersham / Fox & Duck – The Dysart – American University – Chisholm Road – Park Road – Marchmont Road – Kings Road – St. Matthias Church – The Vineyard – Meadows Hall – Eton Street – Richmond Bus Station – George Street – The Quadrant – Richmond Circus – Sheendale Road – Manor Circus – Manor Road / Sainsburys	7 per hour	7 per hour	6 per hour	5 per hour
K5	Dysart Avenue – Cardinal Avenue – Elm Road, Shortlands Road – Kingston Station – Cromwell Road Bus Station – Fairfield Bus Station – Eden Street – Cromwell Road Bus Station – Tiffin School / London Road – Norbiton Church – Gordon Road – Station Road – Norbiton – Gloucester Road – Archdale Place – California Road – Wellington Crescent – Nelson Road, South Lane – New Malden / The Fountain – St James Ch / Kingston By-Pass – Blakes Lane – Motspur Park Station – West Barnes Level Crossing – Cavendish Avenue – Shannon Corner – Carters Bridge – Bushey Road / Grand Drive – Raynes Park Station – Raynes Park / Junction Tavern – Sydney Road – Lower Downs Road – Wimbledon Chase Station – Nelson Hospital – Wilton Crescent – Morden Station	1 per hour	1 per hour	1 per hour	-

Table 2.1: Accessible Bus Services

2.14 Table 2.1 show that the site is accessible by two bus services that provide routes to various destinations in the local area including Richmond, Kingston, New Malden and Wimbledon.

Rail Accessibility

2.15 The nearest railway station to the site is Kingston Station, located approximately 1.8km to the south of the site. Whilst this is outside of easy walking distance the station can be accessed by cycle or the 371 and K5 buses accessible from the site.

Pedestrian and Cycle Accessibility

- 2.16** Pedestrian access from the south of the site is achievable from good condition, well lit footways along residential roads. No footways are provided along Church Road to the north of the site, although there is not expected to be a demand for pedestrians to travel along this road considering that the local shops, services and bus stops are all located to the south of the site.
- 2.17** Numerous pedestrian crossing islands benefitting from dropped kerbs and tactile paving are located along Tudor Drive and at all arms of the Latchmere Lane/Tudor Drive mini-roundabout to the south of the site.
- 2.18** National Cycle Route 4 (NCR4) is located approximately 450m to the north of the site along Ham Gate Avenue. NCR4 is a long distance cycle route that runs from London to Fishguard via Reading, and in the vicinity of the site NCR4 runs along the Thames, through Ham and on through Richmond Park.
- 2.19** In addition, Richmond Park is popular with cyclists and contains numerous cycle routes and the roads outside the park are generally in good condition, well lit and offer no significant obstacle to cycle use.

Accessibility Summary

- 2.20** This section has shown that the site is accessible by various sustainable modes of non-car modes of transport including buses and bicycles, and is easily accessible by pedestrians.

Road Safety Appraisal

- 2.21** A Road Safety Appraisal has been undertaken independently by Mayer Brown's Road Safety Team, a copy of which is provided at Appendix A of this report. Accident data for a period of 5 years up to December 2012 was reviewed, in conjunction with a site visit to view existing road conditions.
- 2.22** The Road Safety Appraisal reviewed all of the accidents to identify any accident patterns or causation factors. A total of eighteen accidents were recorded. Three of the accidents resulted in serious injury whilst the remaining fifteen resulted in slight injuries. This is generally indicative of a lower than average severity ratio.
- 2.23** The Appraisal concluded that the accidents recorded over a five year period do not identify accident patterns or locations, which would in turn suggest no requirement for remedial engineering measures.
- 2.24** It is further considered that no material increase in risk to road users is to be anticipated as a result of the proposed development access arrangement.

3.0 PLANNING POLICY

3.1 The development proposals in relation to the relevant transportation related National, Regional and Local Planning Policies have been outlined in this section.

National Planning Policy Framework

3.2 In March 2012 the National Planning Policy Framework (NPPF) was introduced. This document replaces previous national planning policy documents and sets out the Government's planning policies for England and how these are expected to be applied.

3.3 Paragraph 197 of the NPPF, Determining Applications, states:

“In assessing and determining development proposals, local planning authorities should apply the presumption in favour of sustainable development.”

3.4 This report has shown that the proposed development is located in a sustainable area with numerous shops and services within walking distance of the site. In addition the development proposals will increase the non-car accessibility of the site by providing new pedestrian accesses and cycle parking facilities.

3.5 Paragraph 17 of the NPPF, Core Planning Principles, states:

“Within the overarching roles that the planning system ought to play, a set of core land-use planning principles should underpin both plan-making and decision-taking. These 12 principles are that planning should:

- *encourage the effective use of land by reusing land that has been previously developed (brownfield land), provided that it is not of high environmental value;*
- *actively manage patterns of growth to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable”*

3.6 The development proposals will provide a sustainable residential development and fulfils an opportunity to re-use a vacant site within an existing residential area.

3.7 Paragraph 32 of the NPPF, Promoting Sustainable Transport, states:

“All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account of whether:

- *the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;*
- *safe and suitable access to the site can be achieved for all people; and*
- *improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.”*

3.8 The development will be sustainable, accessible and will have no impact on the current operation of the local highway network, and thus accord with all of the above points. Connections to local bus routes have been provided and improved. Cycle parking is provided and the development will be accessible to all.

3.9 Additionally, Paragraph 35 of the NPPF states:

“Plans should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods or people. Therefore, developments should be located and designed where practical to:

- *accommodate the efficient delivery of goods and supplies;*
- *give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;*
- *create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones;*
- *incorporate facilities for charging plug-in and other ultra-low emission vehicles; and*
- *consider the needs of people with disabilities by all modes of transport.”*

3.10 Safe and suitable access to the site can be achieved by all. The site will be easily accessible by pedestrians and cycle parking will be provided for residents. Garages will be provided with power, which will enable charging of electric vehicles.

3.11 It can therefore be concluded that the proposals are sustainable and thus comply with the overarching principles contained in the NPPF.

The London Plan

3.12 The London Plan was first published in February 2004 and was updated in 2008 and again in 2011. The current iteration of the plan is *The London Plan Spatial Development Strategy for Greater London Consolidated July 2011* and provides an integrated social, economic and environmental framework for the future development of London, looking forward 20-25 years. This provides the London wide context within which individual boroughs must set their local planning policies. Relevant transportation policies from the London Plan have been summarised below.

3.13 Policy 6.3 - Assessing effects of development on transport capacity:

“Development proposals should ensure that impacts on transport capacity and the transport network are fully assessed.”

3.14 Section 5 of this report fully assesses the impact of the proposed residential development and summarises that the proposals will lead to a net reduction in traffic volumes at the site.

Royal Borough of Kingston upon Thames Local Policy

3.15 The key planning document for RBKuT is The Royal Borough of Kingston upon Thames Core Strategy (adopted 2012). The relevant transportation policies from this document have been outlined below.

3.16 Policy CS 6 Sustainable Travel:

“To support and encourage the use of public transport, cycling and walking the Council will:

- *promote and enhance the strategic cycling and walking networks*
- *enhance and promote the Borough’s network of quiet residential roads, traffic free routes and open spaces as attractive, safe and convenient walking and cycle routes”*

3.17 Policy DM 8 Sustainable Transport for New Development:

“To support and promote the use of sustainable modes of travel to development sites the Council will:

- *require residential developments to develop and implement a robust and effective Travel Plan*
- *prioritise the access needs of pedestrians and cyclists in the design of new developments*

- *require new development to provide facilities on-site for cyclists as appropriate, including showers, lockers and secure, convenient cycle parking, in accordance with minimum standards”*

3.18 A Travel Plan will be in operation at the site and will include various incentives to promote the use of sustainable travel modes. In addition, the development proposals include the provision of several additional pedestrian/cycle accesses as well as secure cycle parking.

London Borough of Richmond upon Thames Local Policy

3.19 There are two key policy documents for LBRuT, the Local Development Framework Core Strategy (adopted 2009) and the Development Management Development Plan Document (adopted 2011). The relevant transportation policies from these documents have been outlined below.

3.20 CP5 Sustainable Travel:

“Prioritise the needs of pedestrians and cyclists in the design of new developments. Require car share facilities and car clubs in appropriate new developments. Require all major developments to submit a Transport Assessment based on TfL’s Best Practice Guidance.”

3.21 Policy DM HD 1 Conservation Areas - designation, protection and enhancement:

“Buildings or parts of buildings, street furniture, trees and other features which make a positive contribution to the character, appearance or significance of the area should be retained. New development (or redevelopment) or other proposals should conserve and enhance the character and appearance of the area.”

3.22 Latchmere House, designated as a Building of Townscape Merit, will be retained as part of the development proposals and the proposed development, including access roads and street furniture, will be in keeping with the character of the area.

3.23 Policy DM TP 6 Walking and the Pedestrian Environment:

“To protect, maintain and improve the pedestrian environment.”

3.24 The development proposals include the construction of several new pedestrian accesses into the site from the surrounding area; greatly improve the accessibility of the site by pedestrians.

3.25 Policy DM TP 7 Cycling:

“To maintain and improve conditions for cyclists.”

3.26 Adequate and secure cycle parking facilities will be provided at the site, together with cycle routes, encouraging cycle use by the residents.

3.27 Policy DM TP3 Enhancing Transport Links:

“New development will be expected to improve links and gated developments will not be permitted.”

3.28 To enhance the permeability of the site the proposed development will not be gated and there will be pedestrian and cycle permeability.

Latchmere House and HM Remand Centre Planning Brief

3.29 A Planning Brief for the site was jointly produced by the London Borough of Richmond upon Thames Council (LBRuT) and the Royal Borough of Kingston upon Thames (RBKuT) Council in March 2013. The Brief provided an outline of the key issues and principles for transport and access as outlined below:

3.30 Paragraphs 5.14 and 5.15 on transport and access:

“The consultation process identified a number of transport issues which included concerns about impacts on road congestion and safety and amenity, particularly on Church Road. The creation of new vehicular access points also raised safety and amenity considerations. The Councils will need to be assured that transport and highway issues can be satisfactorily addressed through the proposals and a Transport Assessment will be required as part of the planning application.”

“Development proposals that come forward on the site will need to demonstrate, by way of a Transport Assessment and a Design and Access Statement, that full consideration has been given to accessibility and movement issues in line with the principles set out in this document. Having regard to sustainability issues and the need to ensure that new development is accessible by a choice of transport modes will be important. A Travel Plan will therefore be required.”

3.31 A Transport Assessment is provided which contains sensitivity testing of local junctions for development traffic. A Framework Residential Travel Plan is also provided.

3.32 Paragraph 5.16 on gated development:

“A gated development will not be permitted to ensure that future development sensitively integrates with the existing community.”

3.33 To enhance the permeability of the site the proposed development will not be gated.

3.34 Paragraphs 5.17 and 5.18 on pedestrian and cycle access:

“Pedestrian and cycle priority should be afforded wherever possible within the development and there should be a series of clearly defined pedestrian routes to and from the site in addition to the main vehicular access points, where these will effectively integrate with the site surroundings and existing network. Sustainable travel and transport priorities are established in LBRuT policy CP5 and RBKuT Policy CS5, CS6, CS7 and CS 8 and Policy DM 8 and DM 9.”

“The provision of a network of pedestrian routes across the site (including cycle routes), in particular enabling improved access to local facilities on Tudor Drive to the south and towards Richmond Park to the north for both existing and new residents, should be established.”

3.35 Pedestrian access can be gained from a new pedestrian link through Garth Road, with the continuation of the southern footway through the site. A new cycle link is also provided from Garth Road. A new pedestrian link is also provided from the southwestern corner of the site to Anne Boleyn’s Walk, providing improved access to the local facilities and bus stops on Tudor Drive. A new pedestrian route has also been provided by Latchmere House to the east of the site to Latchmere Lane.

3.36 Paragraphs 5.19 - 5.21 on vehicular access:

“The existing access off Church Road is likely to be unsuitable in its present form. Careful consideration should be given to appropriate vehicular access improvements. These might include alterations to the Church Road access. These might also include new access opportunities from Latchmere Lane and extending Garth Road (but retaining it as a cul-de-sac). All these options will be the subject of considerable local sensitivity.”

“The vehicular access strategy will need to be planned carefully to ensure that there are no opportunities for through traffic. The vehicular access strategy will need to be appropriate for the proposed quantum and layout of the development, and will need to take into account traffic congestion, impact on the local environment including trees, the setting of Latchmere House and of utmost importance demonstrating how the internal layout produces an access and egress system that minimises the traffic impact on the surrounding roads.”

“Subject to the analysis contained in the Transport Assessment, traffic management measures may be required on Church Road and Latchmere Lane to maintain safety and residential amenity.”

3.37 A review of the access opportunities for the site were thoroughly explored and consulted on with local residents. The existing access on Church Road and proposed access on Latchmere Lane are sufficient in highways design terms to serve the development proposals and have also been tested for junction capacity at Chapter 5. The Accident Review undertaken has also demonstrated that there will be no material increase in risk to road users and that no cost-effective remedial measures have been identified.

3.38 Paragraphs 5.22 on cycle parking:

“Cycle storage should be provided in accordance with the RBKuT’s Draft Sustainable Transport SPD (2012) and LBRuT policy DM TP8 as set out in Appendix 1 and be integral to the design of dwellings. Cycle storage should be secure, accessible and low maintenance.”

3.39 Cycle parking is to be provided in accordance with LBRuT and RBKuT policy requirements.

3.40 Paragraphs 5.23 and 5.24 on car parking:

“Proposals must provide car parking (plus car club provision and provision for visitors) and cycle parking in accordance with the Councils’ standards (as set out in section 3 of this document) and ensure no adverse impact on parking in the local area. Both surface and concealed parking areas must be carefully treated and be integral to the design of the public realm and landscape environment.”

“Thought should be given to providing parking areas that are naturally overlooked to maximise security.”

3.41 Car parking is to be provided marginally above LBRuT and RBKuT policy requirements, reflecting the accessibility of the site and to prevent overspill parking.

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- 3.42** Paragraph 5.25 on public transport:
“The immediate area is served by bus service 371 which runs north to Richmond (20 mins) and south to Kingston (15 mins). Bus stops are situated along Tudor Drive. The layout and design approach will need to encourage pedestrian access to the nearby bus stops. It is important that residents and visitors to the development are able to travel to the site by a choice of transport mode and are therefore not over-reliant on travel by private car.”
- 3.43** The new pedestrian route from the site to Tudor Drive via Anne Boleyn’s Walk will encourage *pedestrians to use the local facilities and bus stops on Tudor Drive*. A Framework Residential Travel Plan is provided to encourage non-car modes of transport.
- 3.44** As outlined above, it is considered that the development proposals accord with the Planning Brief for the site.

4.0 DEVELOPMENT PROPOSALS

4.1 The application seeks full planning permission to provide a residential development of 55 houses and 34 apartments, as outlined below:

Type	Units
1 bed apartment	14
2 bed apartment	12
3 bed apartment	8
3 bed house	14
4 bed house	17
5 bed house	24
<i>Total</i>	<i>89</i>

Table 4.1: Residential Accommodation

4.2 As mentioned previously, the site was previously in use as a prison and remand centre, accommodating circa 220 inmates and 85 staff.

Site Access

4.3 Vehicular access to the site will continue to be gained from the existing access on Church Road and a new access on Latchmere Lane. There will be no vehicular through route from Church Road to Latchmere Lane, to ensure vehicles are not able to “rat-run” through the site.

4.4 As set out in Chapter 2, the existing Church Road access has generous visibility splays and, as shown later in this report, can accommodate the anticipated vehicle demand. Indeed, when the site was last in use as a prison and remand centre this access accommodated large refuse and service vehicles.

4.5 The proposed access on Latchmere Lane has generous visibility splays beyond the minimum requirements of 2.4m x 25m for a 20 mph speed limit recommended by Manual for Streets (published by the DfT), as illustrated at Figure 4.1.

4.6 As illustrated in Section 5, the proposed scheme will have a net reduction in vehicle trips compared to the previous site use.

4.7 Pedestrian and cycle permeability will be provided through the site with new pedestrian/cycle access points on to Latchmere Lane, Garth Road and Anne Boleyn’s Walk. The proposed site layout can be found at Figure 4.2.

Parking Provision

4.8 A total of 146 car parking spaces have been provided across the development. These consist of:

- 32 garage spaces
- 114 parking spaces

4.9 LBRUT and RBKuT parking standards are broadly similar as outlined in Table 4.1 below:

Units	Richmond		Kingston	
	Parking	Cycle Parking	Parking	Cycle Parking
1-2 bed	1 space	1 space	Less than 1 space	1 space
3 bed	1 allocated space + unallocated up to 1.5 spaces	1 space	1.5 – 1 space	2 spaces
4 bed	2 spaces (negotiable)	2 spaces	2 – 1.5 spaces	2 spaces

Table 4.2: Residential Parking Standards

4.10 A provision of 1 space per 1-2 bed dwelling, 1.5 spaces per 3 bed dwelling and 2 spaces per 4 bed+ dwelling has been used as a general provision across the site, as outlined in the table below:

Bedrooms	Units	Parking Standard	Parking Requirement
1-2	26	1	26
3	22	1.5	33
4+	41	2	82
Total	89		141

Table 4.3: Residential Parking Requirement

4.11 It can therefore be seen that the provision of 146 spaces is in general accordance with the LBRuT and RBKuT parking standards. The provision has been provided marginally above the standards, reflecting the accessibility of the site and to avoid overspill parking on surrounding streets.

4.12 A total of 160 cycle parking spaces have been provided across the development.

4.13 All houses with garages will have space for 2 cycles and all other houses will be provided with a secure cycle shed in the garden for 2 cycles. Latchmere House and the apartments will have secure, covered cycle storage areas.

Servicing

- 4.14** Swept path analysis has been undertaken of the site layout to ensure it will be able to accommodate a refuse vehicle in accordance with Manual for Streets design guidance. The resulting track plot is shown on Figure 4.3 and confirms that there is sufficient room on site for a refuse vehicle to safely enter the site, stop within 25m of the refuse storage locations, turn around and leave the site in a forward gear.

Travel Plan

- 4.15** A Residential Travel Plan Framework will be submitted with the planning application. This will look to maximise the public transport opportunities and promote sustainable modes.

5.0 TRIP ANALYSIS / TRAFFIC IMPACT ASSESSMENT

5.1 This section sets out the likely traffic impact of the proposed residential development compared to the previous prison/remand centre use.

5.2 As set out previously, the site was previously in use as a prison and remand centre and therefore would have generated trips throughout the day. When in use at capacity as a Remand Centre in 2009, the Site accommodated circa 207 inmates and 83 staff.

5.3 Historic traffic data for the Latchmere House facility is not available. However to provide an estimation of the previous Latchmere House use, a similar prison site has been identified in conjunction with the Ministry of Justice:

- Blantyre House, Kent – Category C/D, 120 inmates, 36 staff

5.4 Blantyre House has been surveyed to determine the level of vehicle movements associated with the facility. The survey data has then factored according to staff levels to provide a likely level of previous vehicle movements for the Latchmere House site, as outlined below, with full survey data provided at Appendix B:

Use	AM Peak		PM Peak		Daily	
	Arr	Dep	Arr	Dep	Arr	Dep
Previous Latchmere Prison	51	18	12	67	318	316

Table 5.1: Former Prison - Peak Hour and Daily Vehicle Movements based on Blantyre House survey

Proposed Residential Use

5.5 The proposals are for 89 residential units. A survey has been undertaken of the existing site access which serves the existing residential properties on Latchmere Close and Bainbridge Close, consisting of a total 46 houses and 7 apartments and the result of the survey is set out below, with full survey data provided at Appendix C:

Use	AM Peak		PM Peak		Daily	
	Arr	Dep	Arr	Dep	Arr	Dep
Latchmere Close / Bainbridge Close (53 Units)	11	21	18	8	157	163

Table 5.2: Existing Residential - Peak Hour Vehicle Movements

5.6 The dwellings on Latchmere Close and Bainbridge Close have a broadly similar proportion of flats and houses, with the same level of accessibility as the development site. The above survey data is therefore considered to provide an excellent comparison for the likely level of trips generated by the proposals. As such, the peak hour traffic attraction of the proposed residential development has been factored based on the trip numbers provided in Table 5.3 and is outlined below:

Use	AM Peak		PM Peak		Daily	
	Arr	Dep	Arr	Dep	Arr	Dep
Proposed Latchmere House (89 Units)	18	35	30	13	264	274

Table 5.3: Proposed Residential - Peak Hour Vehicle Movements

5.7 Therefore, comparing the data provided in Tables 5.1 and 5.3 above provides the net impact of the proposals on traffic attraction, and this is outlined in the table below:

Use	AM Peak		PM Peak		Daily	
	Arr	Dep	Arr	Dep	Arr	Dep
Previous Latchmere Prison	51	18	12	67	318	316
Proposed Latchmere House (89 Units)	18	35	30	13	264	274
<i>Net Impact</i>	<i>-32</i>	<i>17</i>	<i>19</i>	<i>-53</i>	<i>-55</i>	<i>-42</i>

Table 5.4: Proposed Net Impact

5.8 It can be seen from the above table that the net impact of the proposals will result in a significant reduction in vehicle movements at the site, during the peak periods and throughout the day.

5.9 It is therefore concluded that the proposals will have a beneficial impact on the operation of the local highway network compared to the extant use at the site.

Traffic Distribution

5.10 Notwithstanding the peak hour reduction in trips outlined above, analysis has been undertaken of the likely distribution of development vehicle trips from the site.

5.11 Manual turning surveys were undertaken of the existing Site Access / Church Road junction to determine the vehicle movement split to and from the site. This provided the following movements over the two hour AM and PM Peak survey periods:

Site Access	AM Peak		PM Peak		Total	
	Church Rd (right in) Site Access (left out)	Church Rd (left in) Site Access (right out)	Church Rd (right in) Site Access (left out)	Church Rd (left in) Site Access (right out)	Church Rd (right in) Site Access (left out)	Church Rd (left in) Site Access (right out)
Vehicle Movements	20	33	20	35	40	68
Percentage	38%	62%	36%	64%	37%	63%

Table 5.5: Existing Site Access Traffic Distribution

5.12 It can be seen from the above table that the almost two thirds of existing movements from the site are to and from the eastern section of Church Road, travelling towards the junction with Latchmere Lane and Ham Gate Avenue. Only circa one third of traffic is to and from the western section of Church Road towards Upper Ham Road. It is therefore considered that the proposed level of development traffic would take a similar trip distribution profile, with the proposed residential trips outlined below:

Proposed	AM Peak (0800-0900)		PM Peak (1700-1800)	
	Arr	Dep	Arr	Dep
Church Road (to/from east)	7	27	17	10
Church Road (to/from west)	12	8	13	4
Total	18	35	30	13

Table 5.6: Proposed Residential Traffic Distribution

5.13 The residential vehicle movements along Church Road towards/from Upper Ham Road will be between 17 and 20 movements in the peak periods, equivalent to only 1 vehicle every 3-4 minutes.

5.14 To provide a wider assessment of the likely distribution of traffic to and from the site for junction modelling purposes, National Census Travel to Work survey data has been interrogated. The local ward was interrogated to identify which post codes people travel to and the key traffic routes, as outlined in the Figures below:

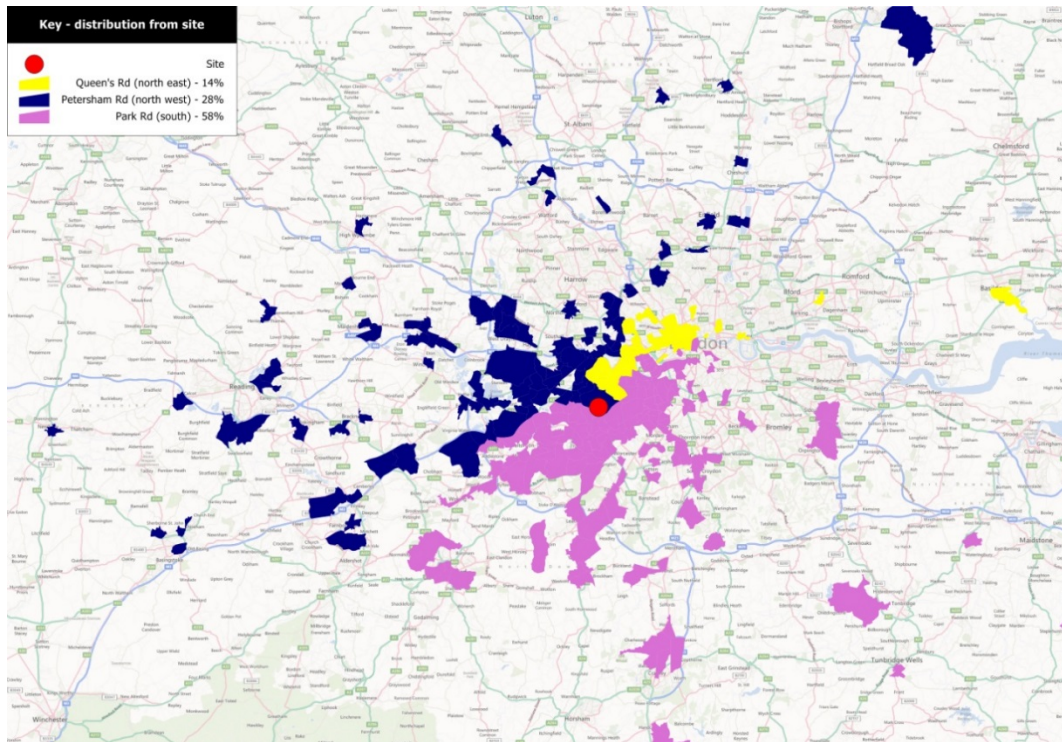


Figure 5.1: Distribution based on National Census Data

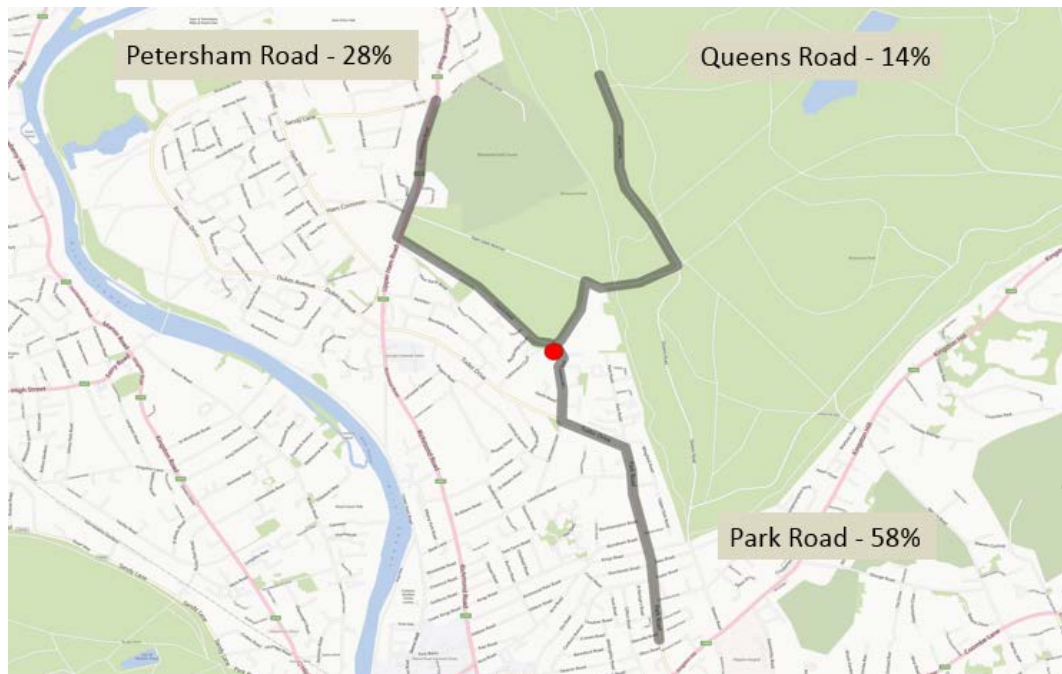


Figure 5.2: Site Traffic Distribution Map

5.15 It can be seen from the above figures, based upon the National Census survey data, 28% of vehicle movements to and from the site will be on Church Road (W) with 72% on Church Road (E). This is broadly similar to the 37% and 63% split based on the surveyed vehicle movements.

Sensitivity Testing

5.16 Notwithstanding the fact that, as set out above, the proposals will lead to a significant reduction in traffic attraction at the site compared to its extant use, for robustness the following junctions have been modelled during the AM and PM weekday peak hours associated with the highway network using industry standard modelling software to determine the capacity of the local highway network and the impact of the proposed development on the operation of the network:

- A307 / Church Road
- Church Road / Site Access
- Latchmere Lane / Site Access
- Church Road / Latchmere Lane
- Ham Gate Ave / Church Lane
- Latchmere Lane / Tudor Drive mini-roundabout

5.17 On a neutral weekday in May 2013, traffic surveys were carried out at the above junctions. The full survey results are contained in Appendix C and the following peak traffic times on the local highway network were identified:

- AM Peak – 0745-0845
- PM Peak – 1730-1830

5.18 The peak hour base traffic flows on the local highway network obtained by the surveys are set out in Figures 5.3 and 5.4.

5.19 The development traffic distribution has been based, for robustness, on the distribution map shown at Figure 5.2 above and the resulting traffic flows associated with the proposed development are set out in Figures 5.5 – 5.10.

5.20 Total “with development” flows are shown in Figures 5.11 and 5.12.

5.21 Traffic modelling has been carried out for the AM and PM peak times associated with the highway network. Both the existing base and proposed with development traffic flows shown in Figures 5.3, 5.4, 5.11 and 5.12 have been modelled.

5.22 TEMPRO traffic growth forecasting was undertaken for the predicted opening year of 2015. This forecast a minor reduction in base traffic from 2013 to 2015. The 2013 base year flows have therefore been used, which is considered to be robust.

5.23 The junctions and roundabouts have been modelled using the Transport Research Laboratory’s PICADY 5 and ARCADY 7 programs, which assesses the maximum theoretical capacity of junctions and compares it to the actual traffic flow through the junction, giving a measure of the ratio of flow to capacity (RFC). RFC usually lies between 0 and 1. An RFC of 1 indicates that the junction is operating at its maximum theoretical capacity, although it is commonly accepted that junctions do continue to operate above this level, albeit with some delay.

5.24 In order to provide a robust assessment, the modelling was carried out using the program’s “OD-Tab” and “ONE HOUR” options, which simulates a traffic peak within the peak hour.

A307 Upper Ham Road / Church Road

5.25 This junction was modelled in PICADY 5. The full results of the modelling for this junction are included in Appendix D and are summarised in the following tables:

Traffic Movement	Base Traffic		Total Traffic	
	Max. RFC	Max. Q	Max. RFC	Max. Q
Church Road, Left	0.047	0.05	0.48	0.05
Church Road, Right	0.075	0.08	0.117	0.13
A307, Right	0.105	0.23	0.105	0.23

Table 5.7: AM Peak Period PICADY Results

Traffic Movement	Base Traffic		Total Traffic	
	Max. RFC	Max. Q	Max. RFC	Max. Q
Church Road, Left	0.079	0.09	0.080	0.09
Church Road, Right	0.070	0.07	0.082	0.09
A307, Right	0.086	0.16	0.086	0.17

Table 5.8: PM Peak Period PICADY Results

5.26 The above tables confirm that the above junction will operate well within capacity with no queuing occurring during both the base and total traffic scenarios.

Church Road / Site Access

5.27 This junction was modelled in PICADY 5. The full results of the modelling for this junction are also included in Appendix D and are summarised in the following tables:

Traffic Movement	Base Traffic		Total Traffic	
	Max. RFC	Max. Q	Max. RFC	Max. Q
Site Access, Left	0.006	0.01	0.013	0.01
Site Access, Right	0.025	0.03	0.048	0.05
Church Road, Right	0.020	0.02	0.023	0.03

Table 5.9: AM Peak Period PICADY Results

Traffic Movement	Base Traffic		Total Traffic	
	Max. RFC	Max. Q	Max. RFC	Max. Q
Site Access, Left	0.004	0.00	0.006	0.01
Site Access, Right	0.018	0.02	0.028	0.03
Church Road, Right	0.009	0.01	0.015	0.02

Table 5.10: PM Peak Period PICADY Results

5.28 The above tables confirm that the above junction will operate well within capacity with no queuing occurring during both the base and total traffic scenarios.

Latchmere Lane / Site Access

5.29 This junction was modelled in PICADY 5. The full results of the modelling for this junction are also included in Appendix D and are summarised in the following tables:

Traffic Movement	Total Traffic	
	Max. RFC	Max. Q
Site Access, Left	0.023	0.02
Site Access, Right	0.023	0.02
Latchmere Lane, Right	0.014	0.02

Table 5.11: AM Peak Period PICADY Results

Traffic Movement	Total Traffic	
	Max. RFC	Max. Q
Site Access, Left	0.009	0.01
Site Access, Right	0.008	0.01
Latchmere Lane, Right	0.021	0.03

Table 5.12: PM Peak Period PICADY Results

5.30 The above tables confirm that the above junction will operate well within capacity with no queuing occurring during both the base and total traffic scenarios.

Church Road / Latchmere Lane

5.31 This junction was modelled in PICADY 5. The full results of the modelling for this junction are also included in Appendix D and are summarised in the following tables:

Traffic Movement	Base Traffic		Total Traffic	
	Max. RFC	Max. Q	Max. RFC	Max. Q
Latchmere Lane, Left	0.035	0.04	0.052	0.06
Latchmere Lane, Right	0.187	0.23	0.195	0.24
Church Road, Right	0.019	0.02	0.039	0.05

Table 5.13: AM Peak Period PICADY Results

Traffic Movement	Base Traffic		Total Traffic	
	Max. RFC	Max. Q	Max. RFC	Max. Q
Latchmere Lane, Left	0.096	0.11	0.112	0.13
Latchmere Lane, Right	0.053	0.06	0.056	0.06
Church Road, Right	0.040	0.04	0.055	0.06

Table 5.14: PM Peak Period PICADY Results

5.32 The above tables confirm that the above junction will operate well within capacity with no queuing occurring during both the base and total traffic scenarios.

Ham Gate Ave / Church Road

5.33 This junction was modelled in PICADY 5. The full results of the modelling for this junction are also included in Appendix D and are summarised in the following tables:

Traffic Movement	Base Traffic		Total Traffic	
	Max. RFC	Max. Q	Max. RFC	Max. Q
Church Road, Left	0.042	0.04	0.042	0.04
Church Road, Right	0.235	0.31	0.248	0.33
Ham Gate Ave, Right	0.018	0.02	0.018	0.02

Table 5.15: AM Peak Period PICADY Results

Traffic Movement	Base Traffic		Total Traffic	
	Max. RFC	Max. Q	Max. RFC	Max. Q
Church Road, Left	0.017	0.02	0.017	0.02
Church Road, Right	0.048	0.05	0.051	0.05
Ham Gate Ave, Right	0.027	0.03	0.027	0.03

Table 5.16: PM Peak Period PICADY Results

- 5.34 The above tables confirm that the above junction will operate well within capacity with no queuing occurring during both the base and total traffic scenarios.

Latchmere Lane / Tudor Drive Mini-Roundabout

- 5.35 This roundabout was modelled in ARCADY 7. The full results of the modelling are included in Appendix E and are summarised in the following tables:

Arm	Existing Traffic		Total Traffic	
	Max. RFC	Max. Q	Max. RFC	Max. Q
Latchmere Ln N	0.08	0.09	0.12	0.13
Tudor Drive E	0.48	0.90	0.49	0.96
Latchmere Ln S	0.09	0.10	0.09	0.10
Tudor Drive W	0.49	0.93	0.49	0.95

Table 5.17: AM Peak Period ARCADY Results

Arm	Existing Traffic		Total Traffic	
	Max. RFC	Max. Q	Max. RFC	Max. Q
Latchmere Ln N	0.13	0.14	0.14	0.16
Tudor Drive E	0.39	0.64	0.41	0.70
Latchmere Ln S	0.09	0.10	0.09	0.10
Tudor Drive W	0.42	0.71	0.42	0.73

Table 5.18: PM Peak Period ARCADY Results

- 5.36 The above tables show that the roundabout currently operates within capacity during the AM and PM peak hours. The modelling has confirmed that the roundabout would continue to operate with significant spare capacity with the proposed development traffic.

Junction Modelling Summary

- 5.37 The modelling results indicate that there is significant reserve capacity on the surrounding highway network and confirms that the impact of the proposed residential development traffic on the operation of the local highway network will be insignificant.

6.0 SUMMARY AND CONCLUSIONS

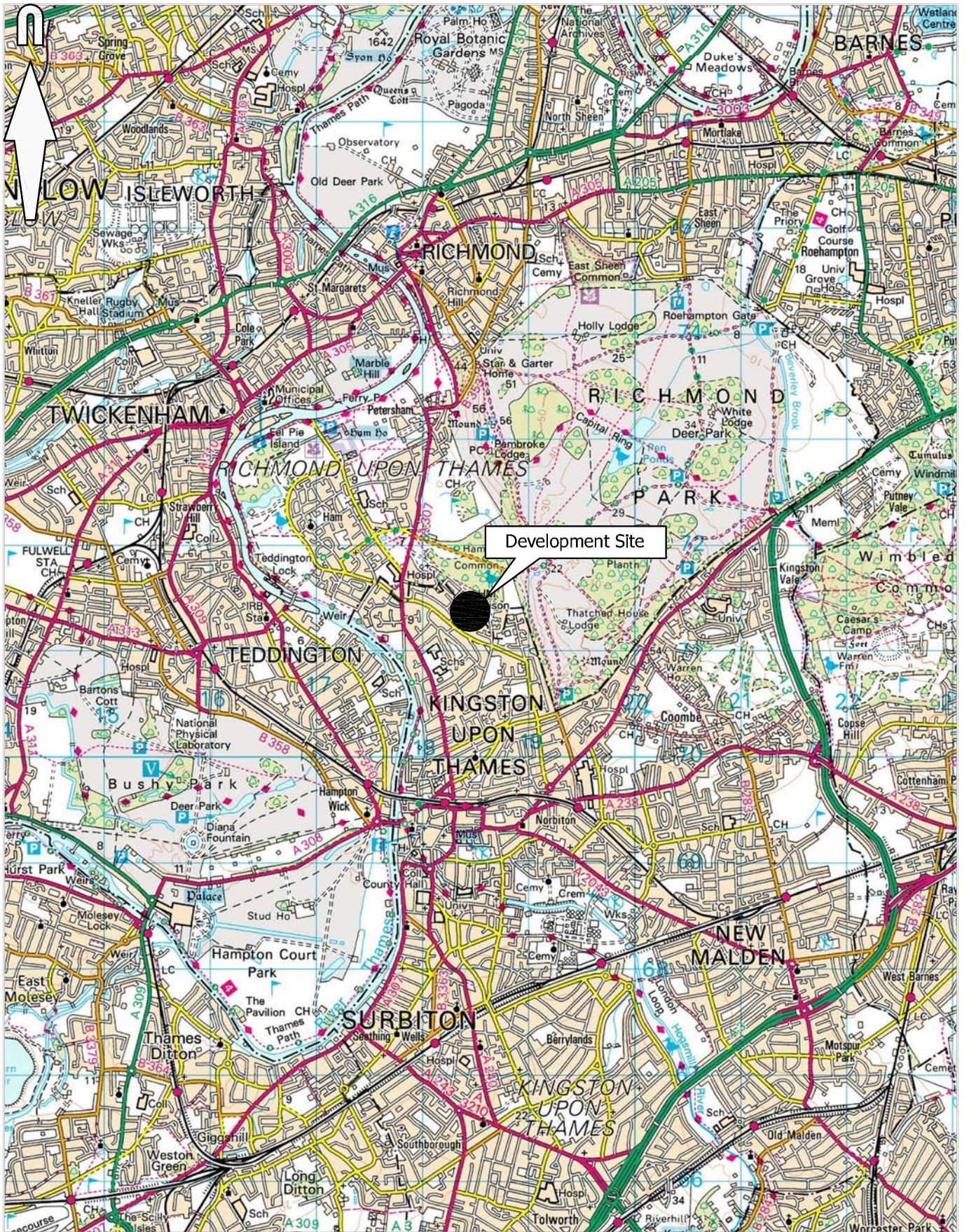
6.1 This Transport Assessment (TA) has been prepared on behalf of Berkeley Homes (Central London) Ltd. to support the proposed planning application for a residential development of 89 residential units at Latchmere House, Church Road, Ham.

6.2 The site was formally in use as a prison and remand centre and the proposals are to redevelop the prison site to provide 89 residential units, retaining the existing Latchmere House building.

6.3 This report concludes:

- The proposals accord with local, London and national planning policies and supplementary guidance.
- The proposals accord with the Planning Brief for the Site.
- The proposed accesses are suitable for the proposed development in design, safety and capacity terms.
- Pedestrian and cycle accessibility through the site has been provided and is a significant improvement on the existing situation.
- Car and cycle parking has been provided in accordance with LBRuT and RBKuT parking standards.
- The proposals will lead to a reduction of traffic using the site at both peak times and over the day.
- The development traffic will have no material impact on the operation of the local highway network or on road safety.

6.4 There are thus no reasons why the development should not be approved on highways or transportation grounds.



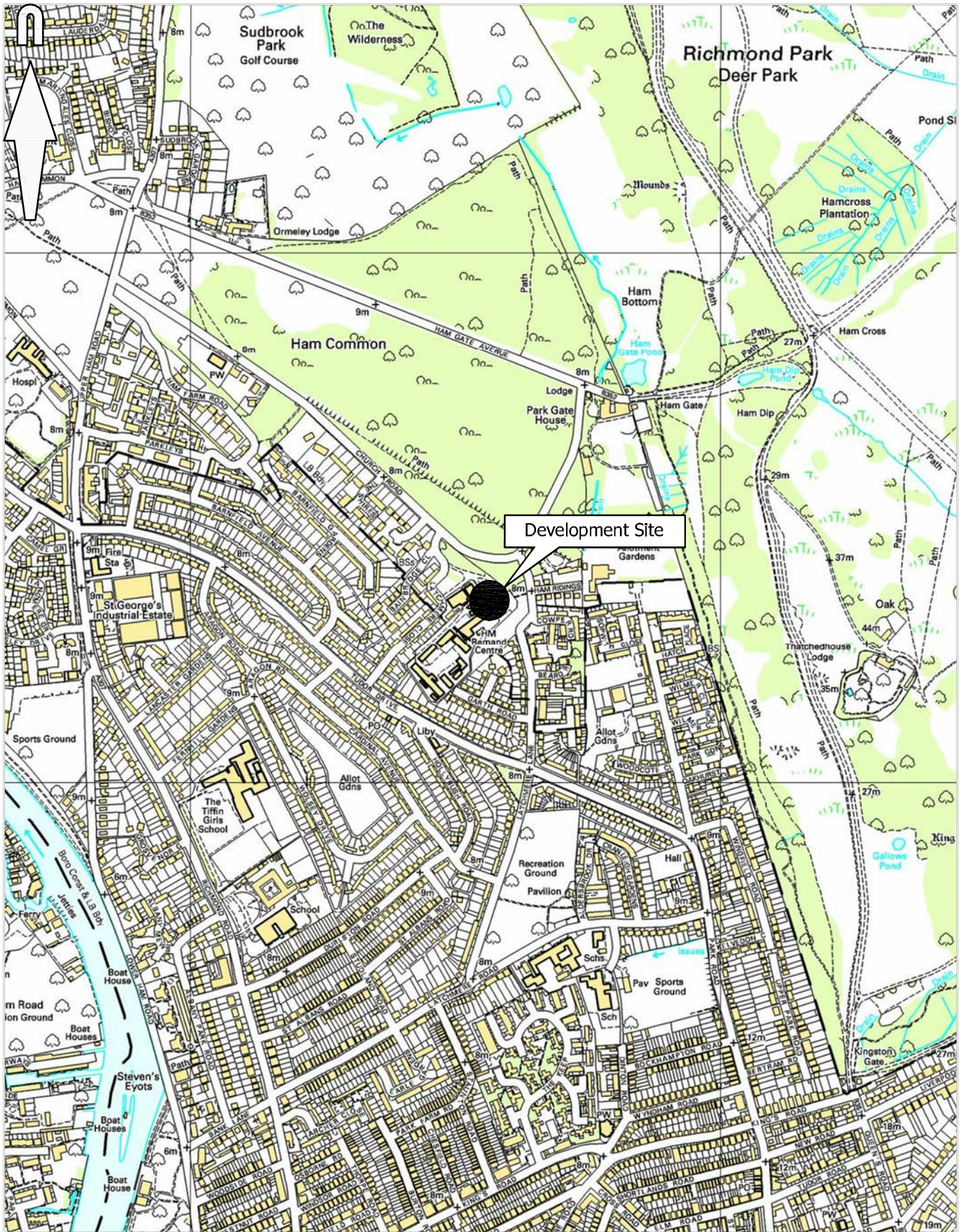
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Site in Relation to the Regional Highway Network

Scale 1:50 000

Figure 1.1



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Site in Relation to the Local Highway Network

Scale 1:10 000

Figure 1.2



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Church Road Access Visibility Splays

Scale 1:500@A3

Figure 2.1



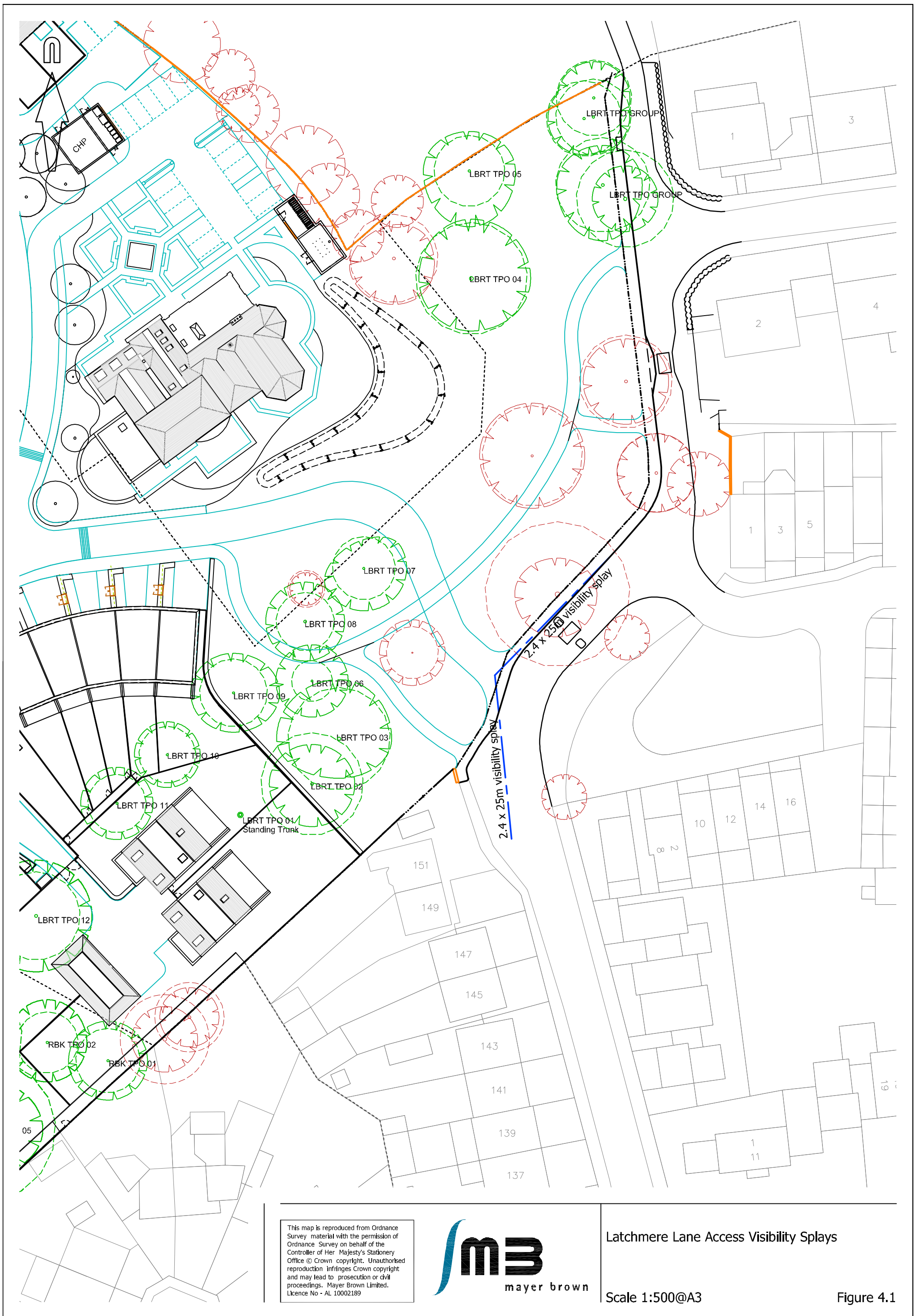
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Latchmere Lane Site Access Visibility Splays

Scale 1:500@A3

Figure 2.2



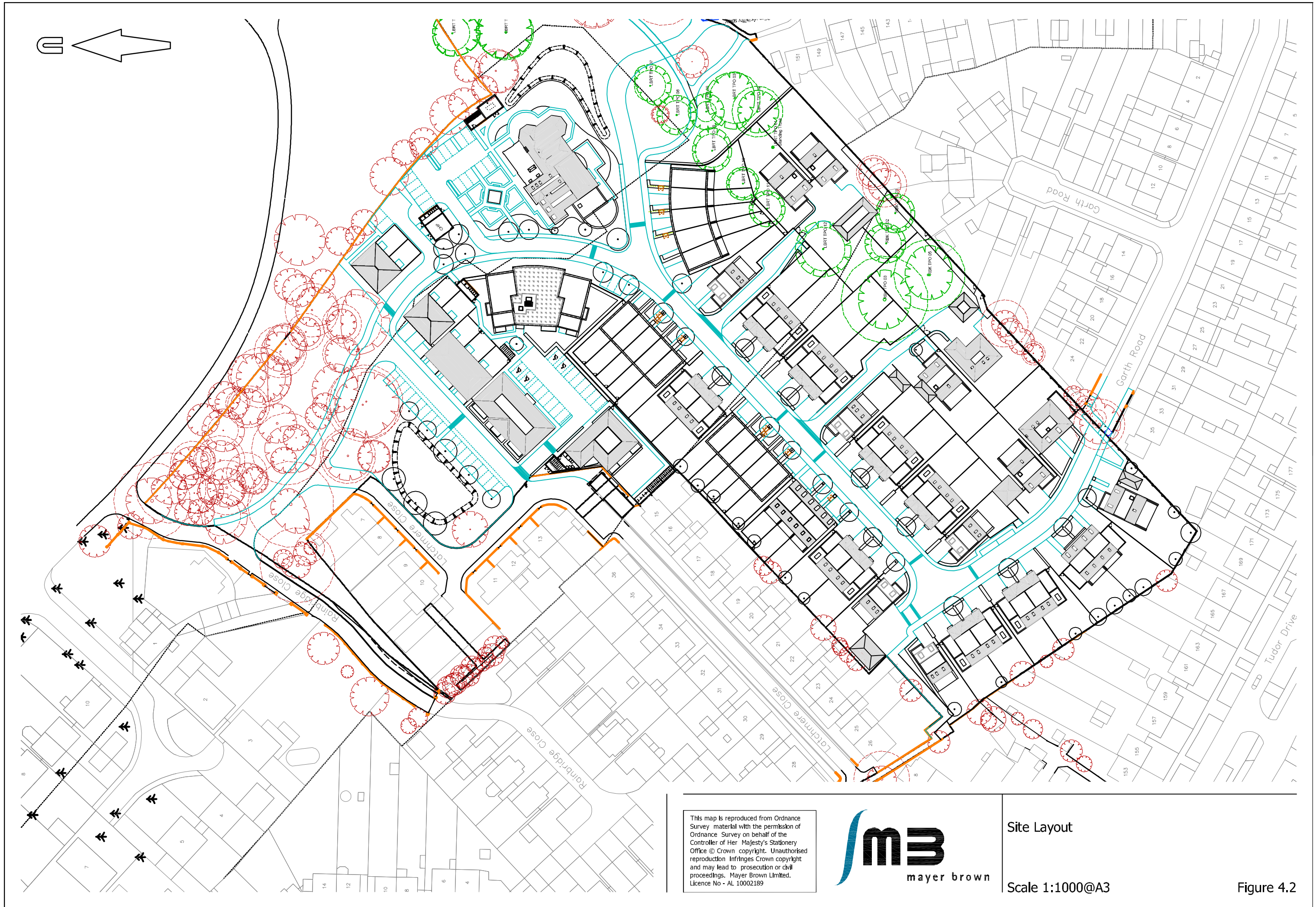
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Latchmere Lane Access Visibility Splays

Scale 1:500@A3

Figure 4.1



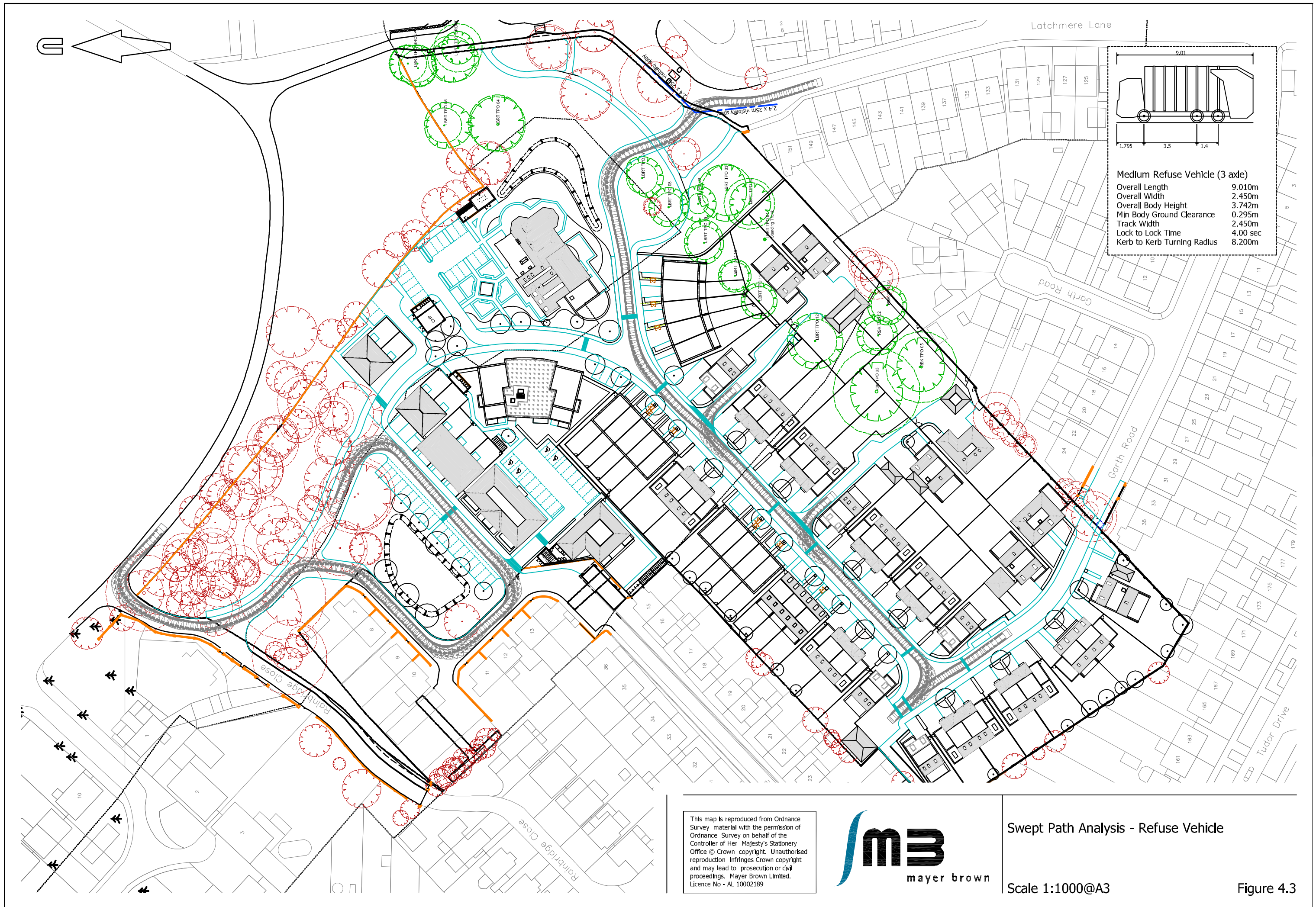
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Site Layout

Scale 1:1000@A3

Figure 4.2



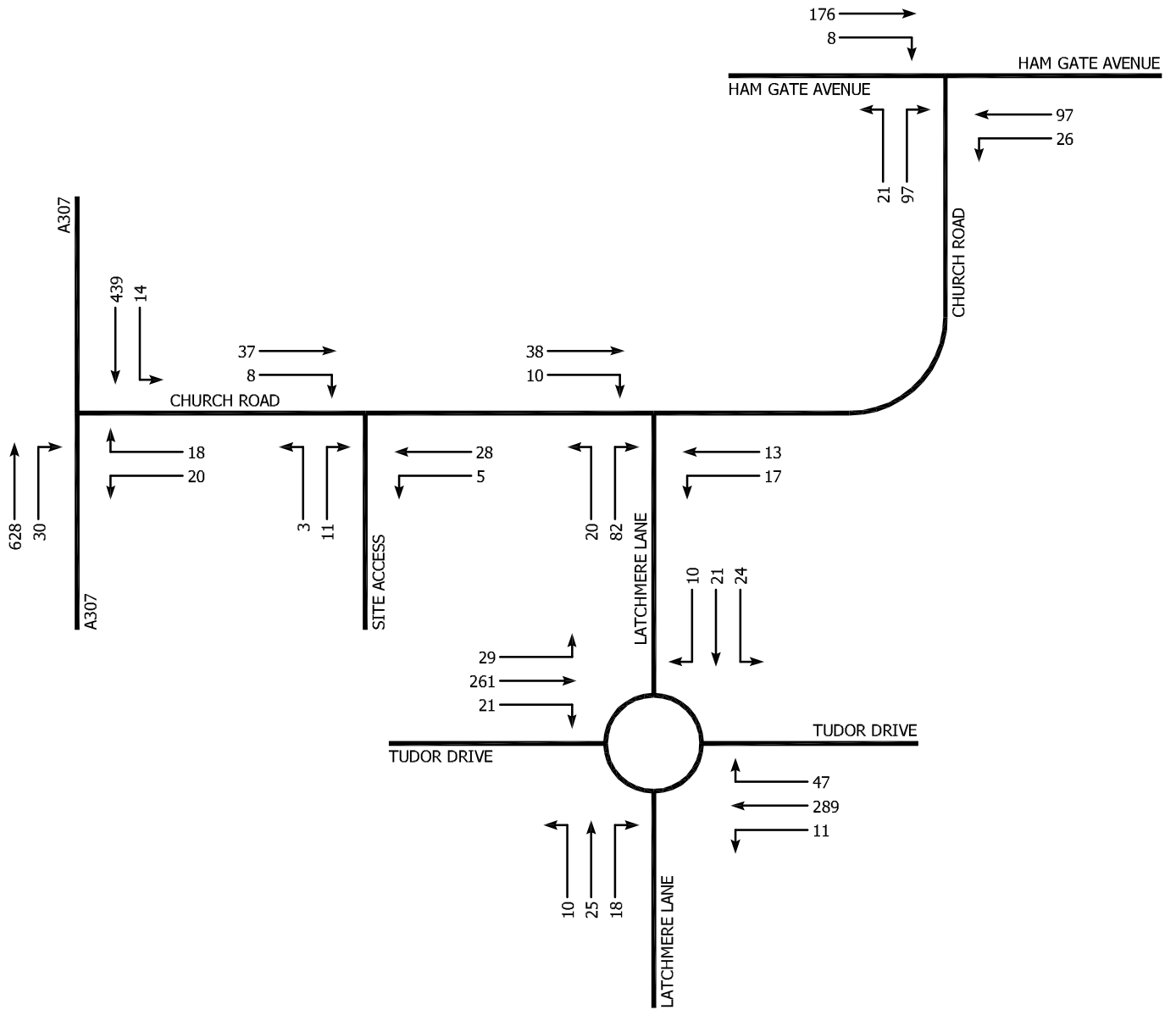
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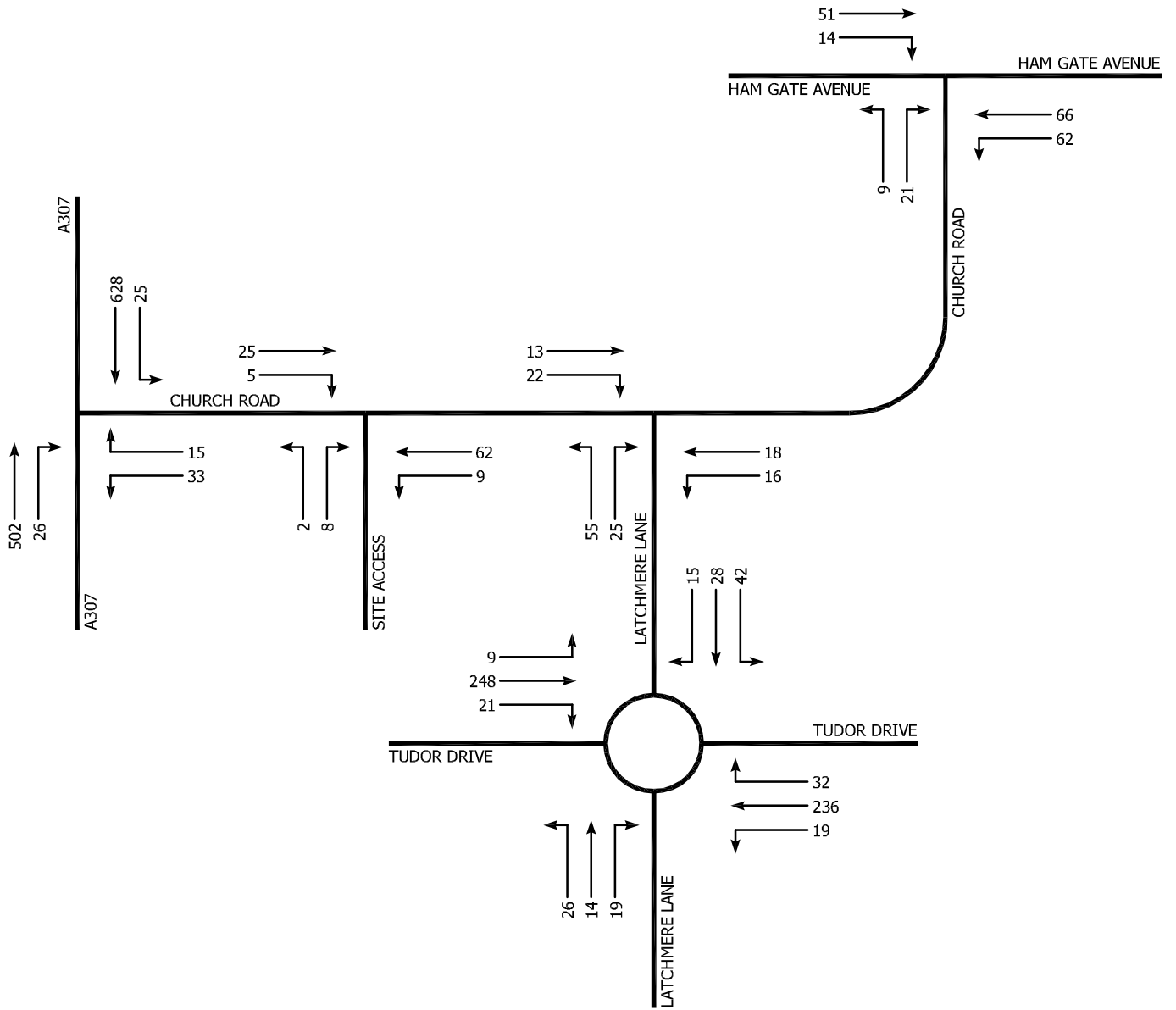


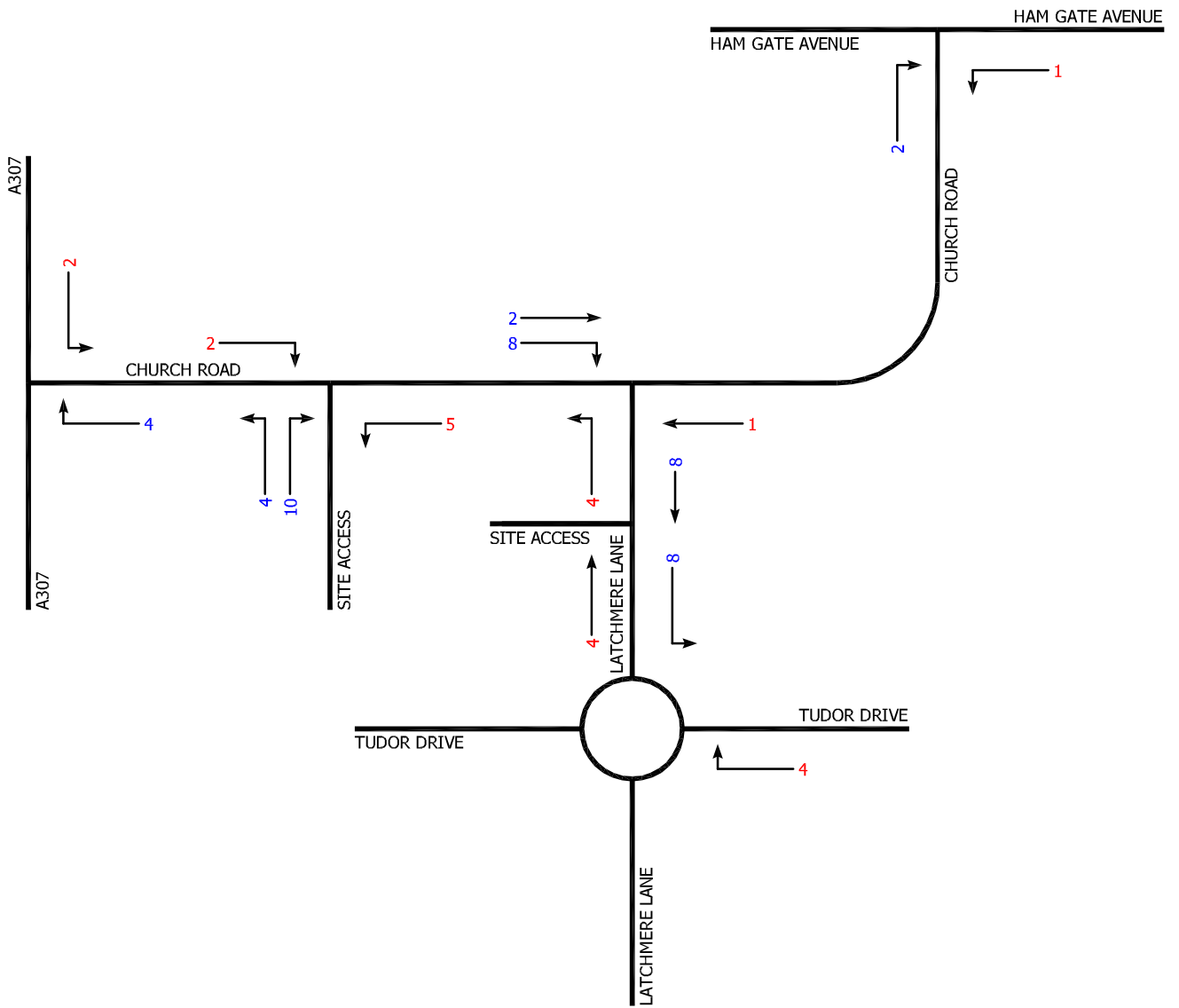
Swept Path Analysis - Refuse Vehicle

Scale 1:1000@A3

Figure 4.3





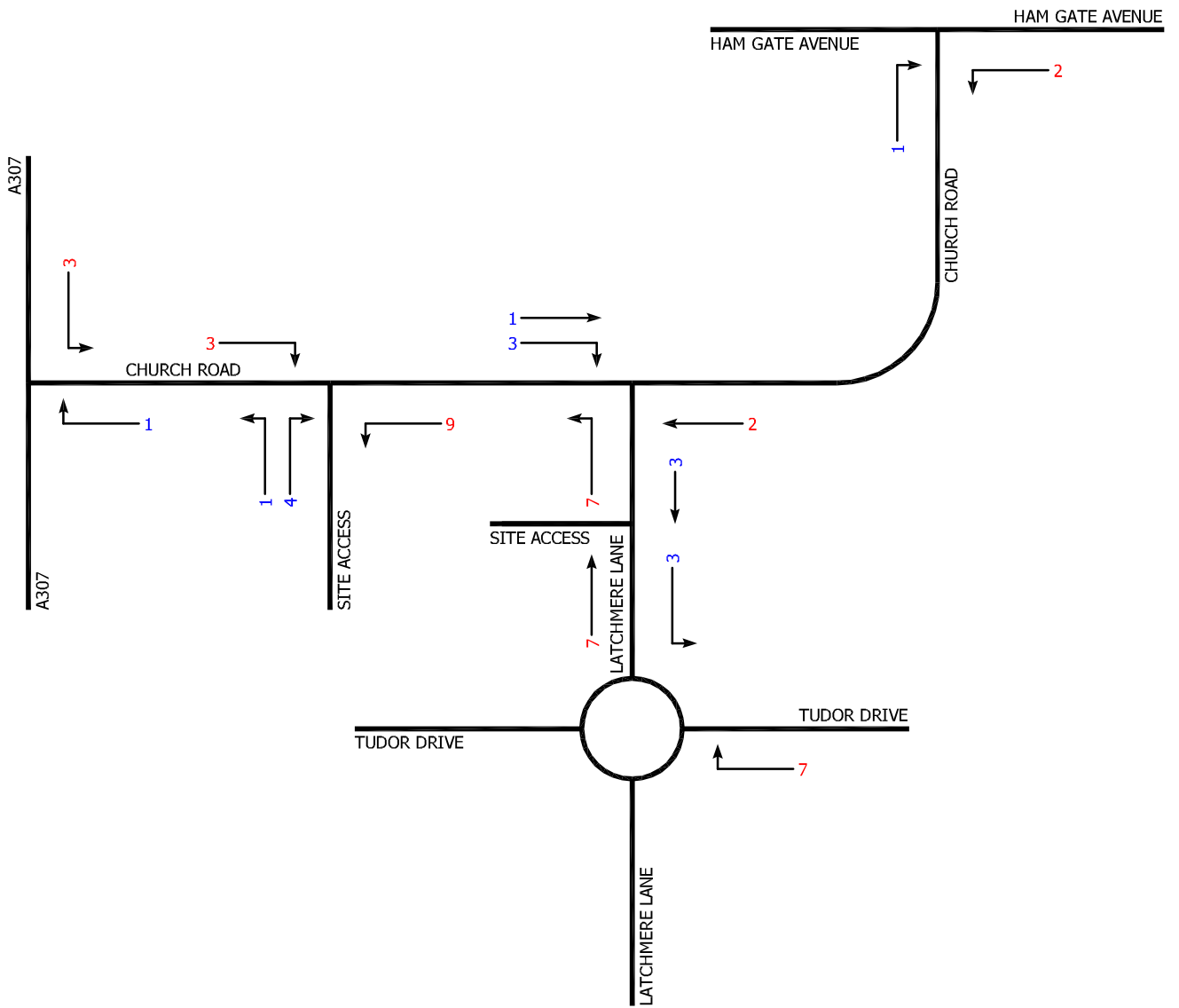


Key
123 = Arrivals
456 = Departures



AM Peak Hour Church Road Access
 Development Flows

Figure 5.5



Key

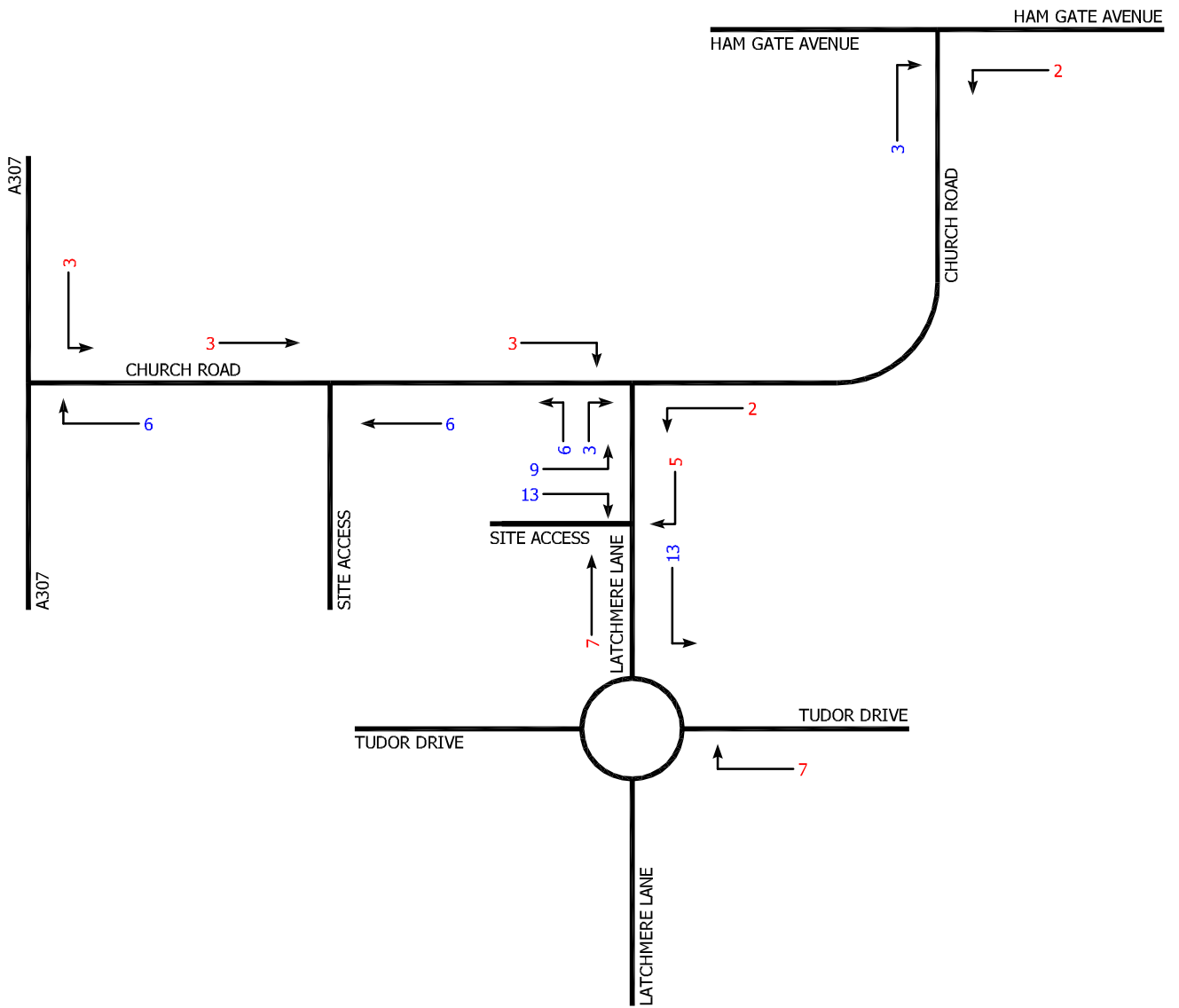
123 = Arrivals

456 = Departures



PM Peak Hour Church Road Access
Development Flows

Figure 5.6



Key

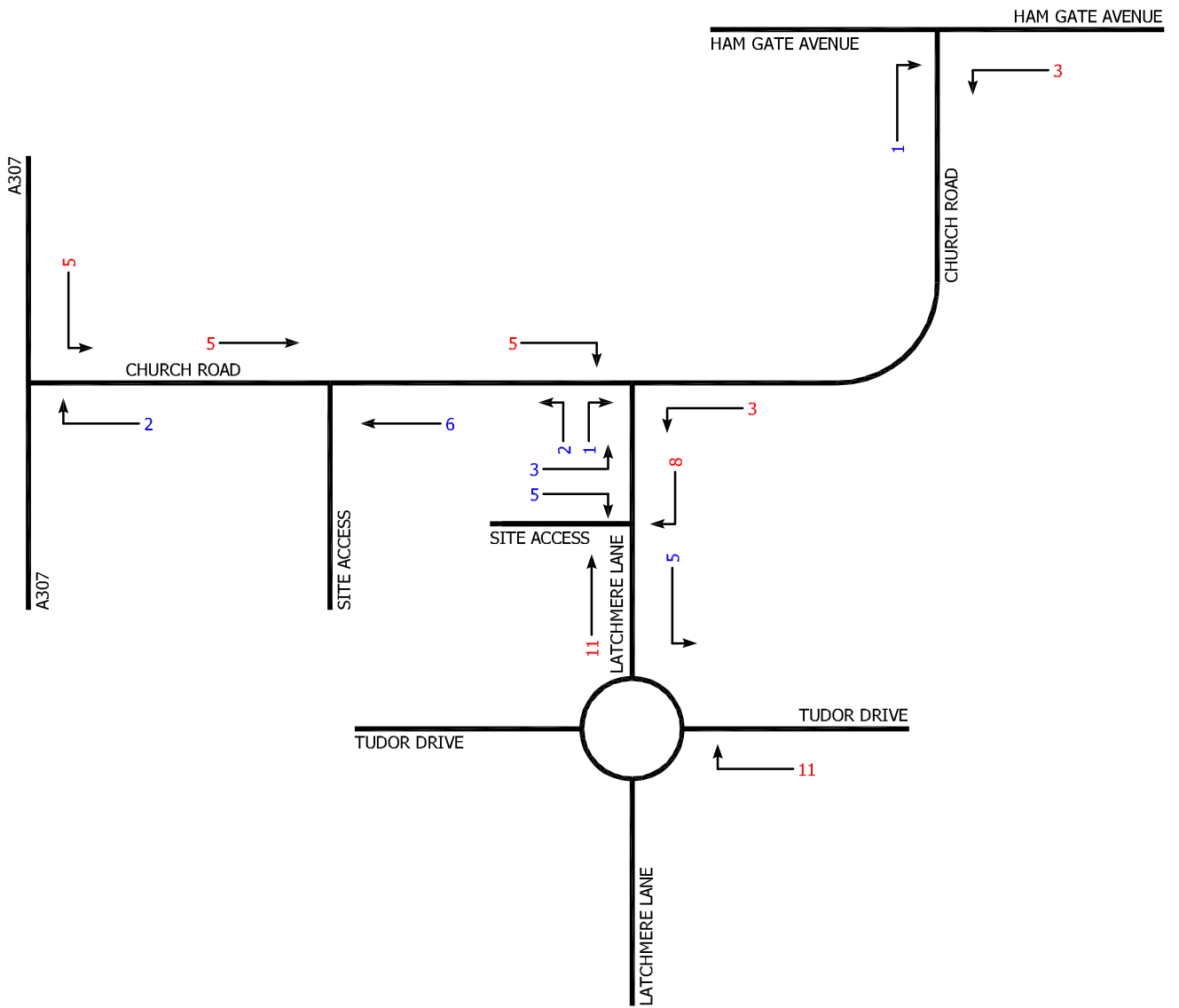
123 = Arrivals

456 = Departures



AM Peak Hour Latchmere Lane Access
Development Flows

Figure 5.7

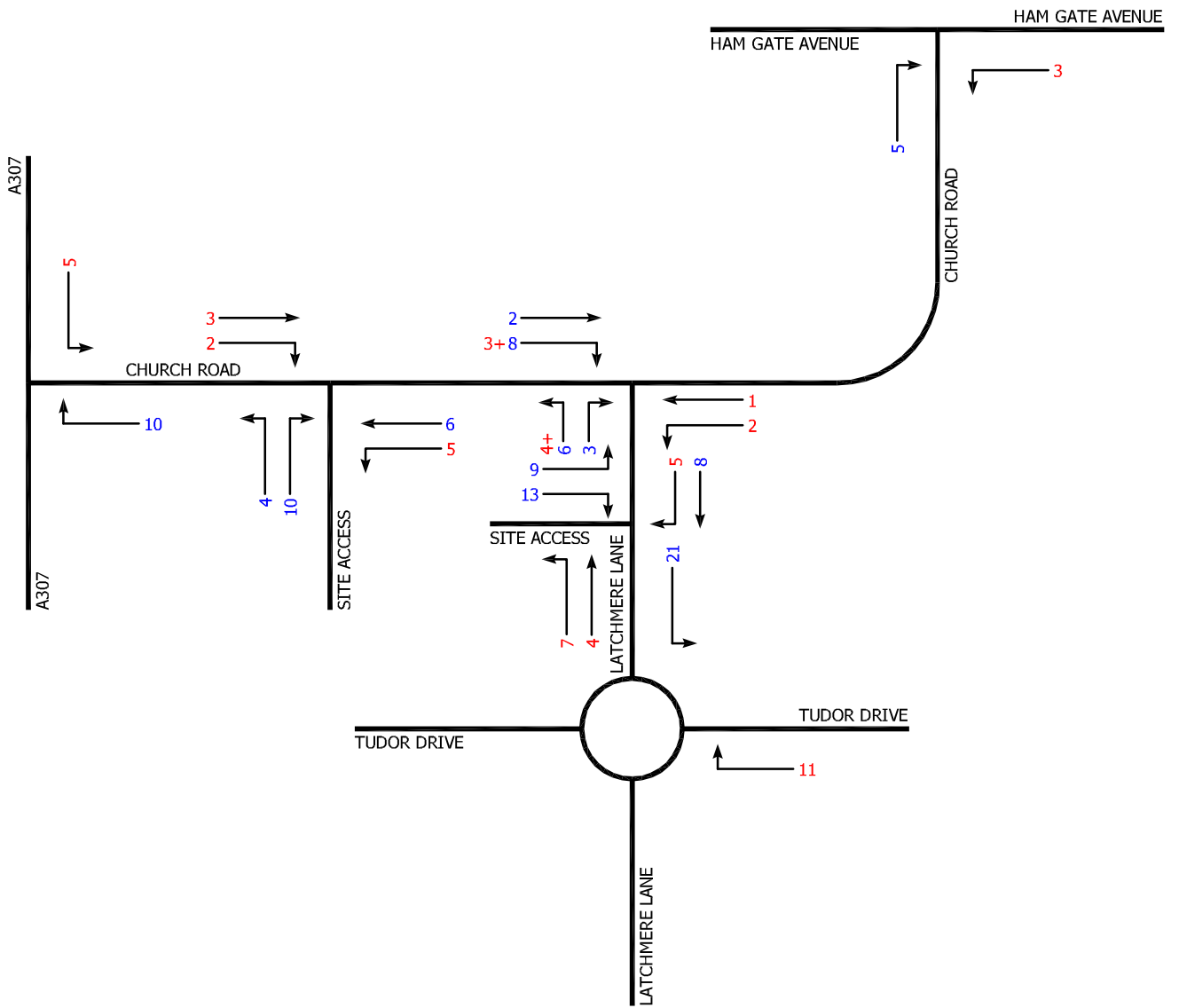


Key
123 = Arrivals
456 = Departures



PM Peak Hour Latchmere Lane Access
 Development Flows

Figure 5.8

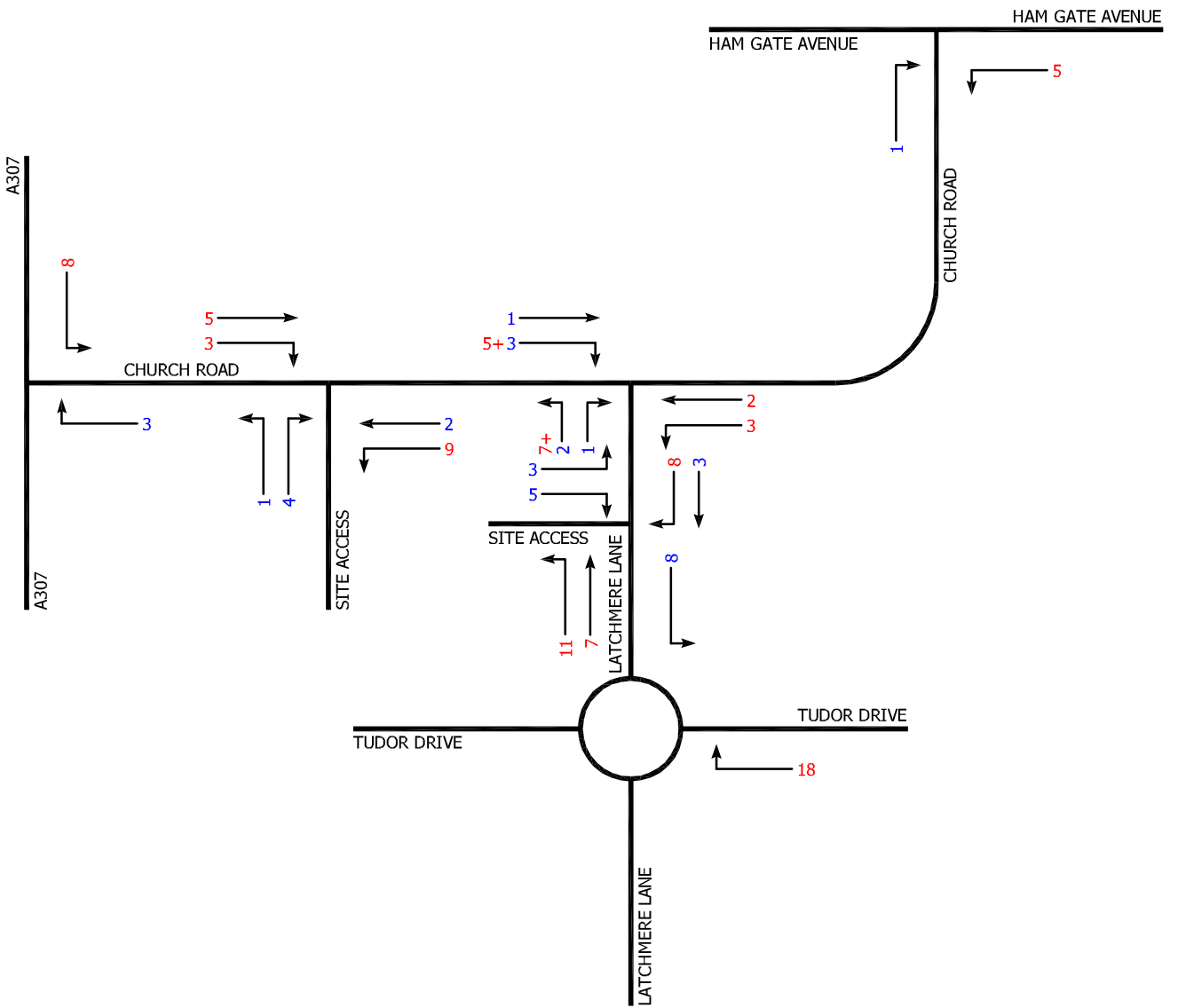


Key
123 = Arrivals
456 = Departures



AM Peak Hour Development Traffic Flows

Figure 5.9



Key

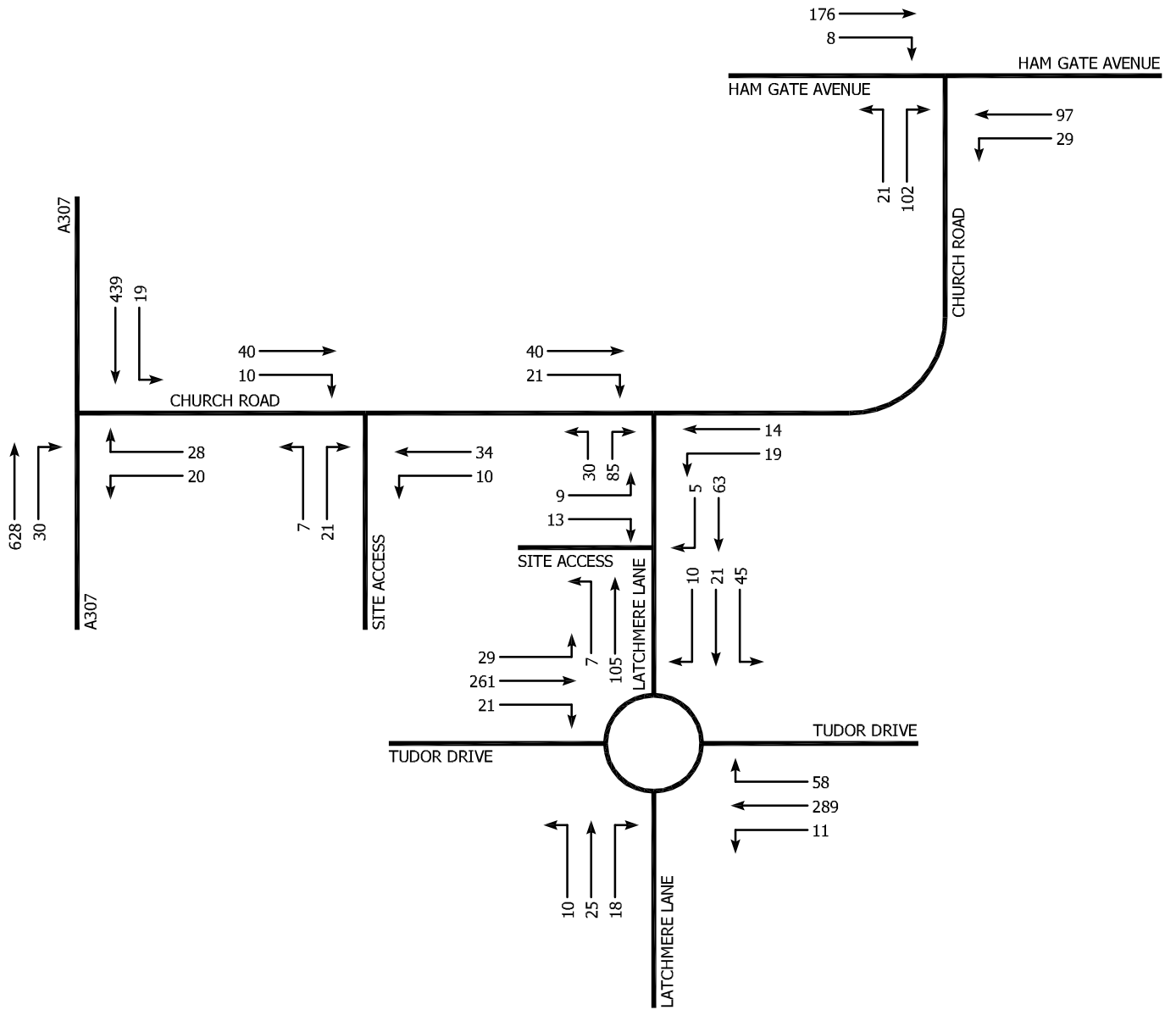
123 = Arrivals

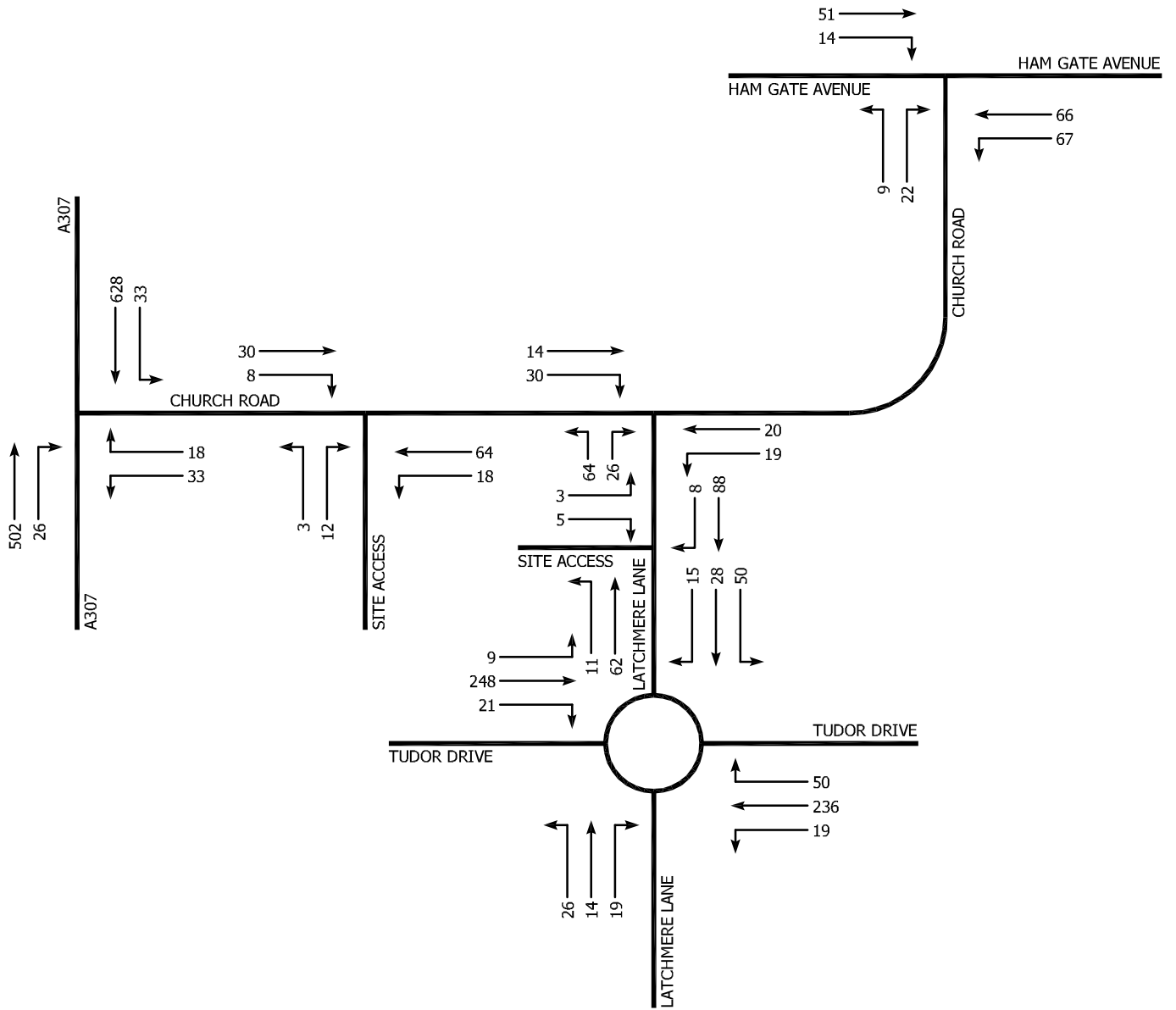
456 = Departures



PM Peak Hour Development Traffic Flows

Figure 5.10





APPENDIX A
Road Safety Appraisal

PROPOSED DEVELOPMENT at CHURCH ROAD, HAM

CONSIDERATION OF ROAD SAFETY IMPLICATIONS

INTRODUCTION.

This report examines factors relating to road traffic accidents recorded over a five year period on the highway links and junctions adjacent to the proposed development. The report goes on to consider the likely effect of the proposed development in road safety terms. A site visit has been undertaken to observe the road environment and pattern of existing usage of the junction and adjacent links.

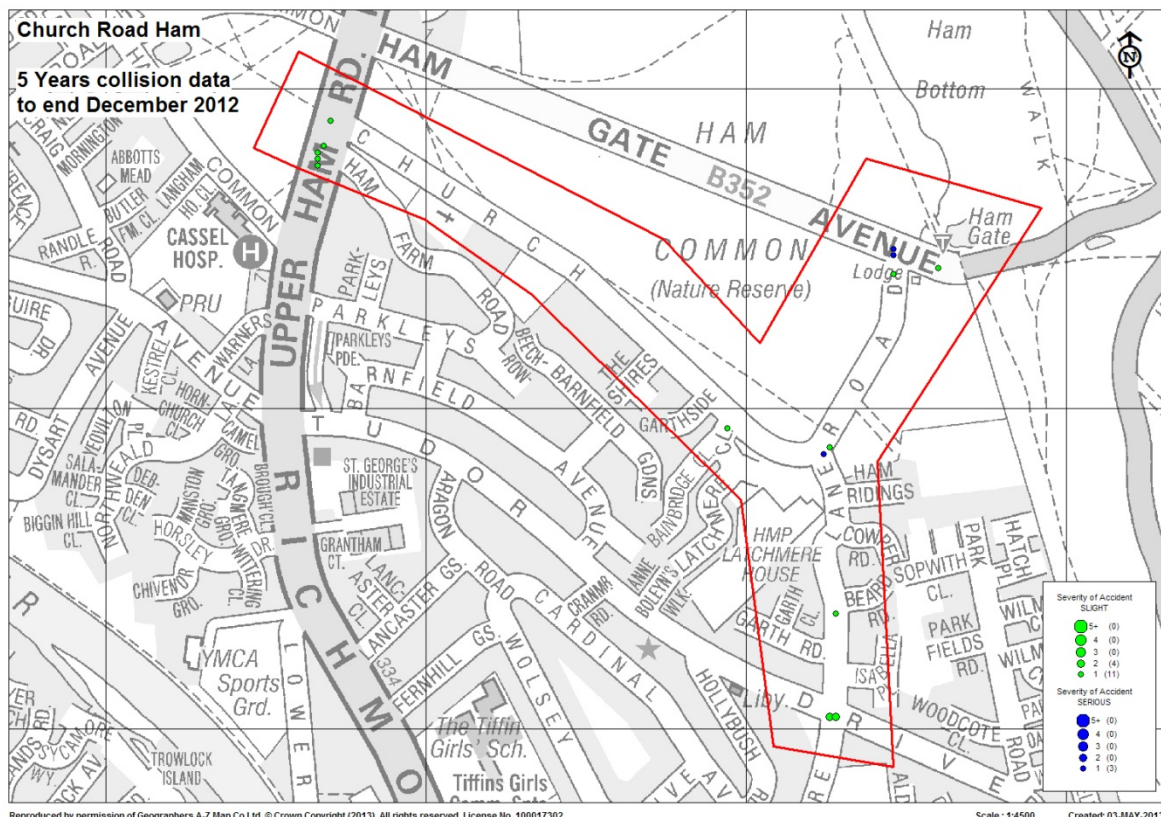
The development proposals are to redevelop a site formerly used as a Remand Centre for the Ministry of Justice. At the time of our site inspection the Remand Centre was no longer in use and had been boarded up. The redevelopment will provide some seventy residential units.

ANALYSIS OF RECORDED ACCIDENTS

HISTORIC ACCIDENT RECORD.

Accident data recorded by the Metropolitan Police has been obtained from Traffic for London. The record relates to the five year period to the end of December 2012.

The extents of the study area and accident locations are outlined below for ease of reference.



The study area as a whole is centred on the Church Road / Latchmere Close junction and extends along Church Road and Latchmere Lane and includes the junctions with Upper Ham Road, Ham Gate Avenue and Tudor Drive respectively. The study area also includes numerous residential cul-de-sacs off Church Road and Latchmere Lane.

A total of eighteen accidents were recorded. Three of the accidents resulted in serious injury whilst the remaining fifteen resulted in slight injuries. This is generally indicative of a lower than average severity ratio.

Over the five year study period it may be seen that recorded accidents are broadly consistent on a year by year basis ranging between one and four each year with the exception of 2011 during which seven accidents were recorded.

It is further noted that throughout the whole study area the highway links are virtually free of recorded accidents with all but one occurring at junctions.

In fact the eighteen recorded accidents occurred at some eight separate locations, none of which had an abnormally high proportion of the overall total when taken in the context of the number of vehicle movements at the respective junctions

In terms of road user involvement it may be seen that pedal cyclists were involved in half of the recorded accidents. Whilst this would be considered an anomaly on many parts of the local highway network, it is likely that nearby Richmond Park provides an attraction for significant numbers of leisure and commuter cyclists resulting in higher than average numbers of pedal cyclists on the highway network in this area.

No accidents involved pedestrians.

More detailed analysis of accident causation factors identified a wide variety of manoeuvres and other relevant factors including the following amongst others;

- The biggest single causative factor was drivers losing control of their vehicle and striking roadside objects or an oncoming vehicle. This was recorded in six of the eighteen accidents. (In one of these a driver is believed to have fallen asleep, whilst another involved a teenage driver at 2 a.m.)
- The second most common feature was conflict between cyclists and motor vehicles on the Tudor Drive / Latchmere Lane mini roundabout junction.
- One car driver and one cyclist collided with parked cars.
- On two occasions drivers opened car doors in the path of passing cyclists.
- One cyclist skidded on ice and fell from his machine
- It is believed by reporting officers that a further accident happened when two drivers were racing one another and overshot a junction.

Only one accident throughout the five year period occurred at the Latchmere Close / Bainbridge Close / Church Road junction – the point at which the new development may be considered to interface with the local network. This accident happened in daylight and fine weather when a driver

emerged from the Bainbridge Close in the path of a vehicle from his left. It will be noted that there is extensive range of visibility in this direction.

It is also relevant to point out that at the Church Road / Ham Gate Avenue junction where there is restricted visibility from Church Road towards Richmond Park, the lack of visibility was not a factor in the recorded accidents. (Such a situation is not uncommon where an obvious restriction in visibility for emerging drivers results in more cautious emerging manoeuvres)

ACCIDENT SUMMARY

It may be seen that over the five year study period, there is no dominant pattern of accident locations or causation factors throughout the study area as a whole. The most common factor was of drivers losing control of motor vehicles at various locations and with various aggravating factors, was a factor in a third of the recorded accidents. The other notable feature is the record of vehicle / pedal cycle conflict at the Tudor Drive / Latchmere Lane mini roundabout.

IN SUMMARY

It is considered that the accidents recorded over a five year period do not identify accident patterns or locations, which would in turn suggest cost-effective remedial engineering measures, which would be appropriate at the various locations throughout the study area at which accidents were recorded over a five year period.

It is further considered that no material increase in risk to road users is to be anticipated as a result of the proposed development access arrangement.

A handwritten signature in black ink, appearing to read 'John Reid', with a small flourish at the end.

John Reid

MSc, DipHTE, MCIHT, FSoRSA, MITAI, HA CoC

Technical Director Safety

10th May 2013

APPENDIX B
Prison Survey Results

CLASSIFIED VEHICLE TURNING SURVEY
HMP BLANTYRE HOUSE
TUESDAY 02/07/2013

15 MIN COUNT	COUNT OF VEHICLE MOVEMENTS:																		
	INDUSTRIAL UNIT A			CAR PARK B			MAIN GATE ACCESS C			ACCESS ROAD D			ON STREET PARKING E			TOTAL MOVEMENTS			
0600-0615	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3	0	3
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3	0	3	
0615-0630	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0630-0645	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0645-0700	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	0	0	0	0	1	1	0	1	1	1	0	1	1	2	3
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	0	0	0	1	1	0	1	1	1	0	1	1	2	3	

CLASSIFIED VEHICLE TURNING SURVEY
HMP BLANTYRE HOUSE
TUESDAY 02/07/2013

15 MIN COUNT	COUNT OF VEHICLE MOVEMENTS:																		
	INDUSTRIAL UNIT A			CAR PARK B			MAIN GATE ACCESS C			ACCESS ROAD D			ON STREET PARKING E			TOTAL MOVEMENTS			
0700-0715	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	1	0	1	0	0	0	1	1	2	1	1	2	3	2	5
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOT	0	0	0	1	0	1	0	0	0	1	1	2	1	1	2	3	2	5
0715-0730	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	1	0	1	2	0	2	0	0	0	3	0	3	1	1	2	7	1	8
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOT	1	0	1	2	0	2	0	0	0	3	0	3	1	1	2	7	1	8
0730-0745	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	4	0	4	0	1	1	0	1	1	0	0	0	4	2	6
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOT	0	0	0	4	0	4	0	1	1	0	1	1	0	0	0	4	2	6
0745-0800	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	1	1	2	2	0	2	1	0	1	0	2	2	1	0	1	5	3	8
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOT	1	1	2	2	0	2	1	0	1	0	2	2	1	0	1	5	3	8

CLASSIFIED VEHICLE TURNING SURVEY
HMP BLANTYRE HOUSE
TUESDAY 02/07/2013

15 MIN COUNT	COUNT OF VEHICLE MOVEMENTS:																		
	INDUSTRIAL UNIT A			CAR PARK B			MAIN GATE ACCESS C			ACCESS ROAD D			ON STREET PARKING E			TOTAL MOVEMENTS			
0800-0815	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	1	2	3	3	0	3	0	0	0	0	1	1	1	0	1	5	3	8
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOT	1	2	3	3	0	3	0	0	0	0	1	1	1	0	1	5	3	8
0815-0830	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	1	1	2	1	0	1	0	0	0	0	0	0	1	0	1	3	1	4
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOT	1	1	2	1	0	1	0	0	0	0	0	0	1	0	1	3	1	4
0830-0845	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1
	CAR	1	1	2	6	0	6	0	0	0	0	0	0	1	0	1	8	1	9
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOT	1	1	2	7	0	7	0	0	0	0	0	0	1	0	1	9	1	10
0845-0900	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	2	1	3	0	1	1	3	1	4	0	0	0	5	3	8
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOT	0	0	0	2	1	3	0	1	1	3	1	4	0	0	0	5	3	8

CLASSIFIED VEHICLE TURNING SURVEY
HMP BLANTYRE HOUSE
TUESDAY 02/07/2013

15 MIN COUNT	COUNT OF VEHICLE MOVEMENTS:																		
	INDUSTRIAL UNIT A			CAR PARK B			MAIN GATE ACCESS C			ACCESS ROAD D			ON STREET PARKING E			TOTAL MOVEMENTS			
0900-0915	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	3	0	3	0	0	0	1	0	1	0	0	0	4	0	4
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOT	0	0	0	3	0	3	0	0	0	1	1	2	0	0	0	4	1	5
0915-0930	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	3	0	3	1	1	2	1	0	1	0	0	0	5	1	6
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOT	0	0	0	3	0	3	1	1	2	1	0	1	0	0	0	5	1	6
0930-0945	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	1	0	1	1	0	1	1	0	1	0	0	0	0	0	0	3	0	3
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOT	1	0	1	1	0	1	1	0	1	0	0	0	0	0	0	3	0	3
0945-1000	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	2	0	2	2	0	2	1	1	2	0	1	1	0	0	0	5	2	7
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOT	2	0	2	2	0	2	1	1	2	0	1	1	0	0	0	5	2	7

CLASSIFIED VEHICLE TURNING SURVEY
HMP BLANTYRE HOUSE
TUESDAY 02/07/2013

15 MIN COUNT	COUNT OF VEHICLE MOVEMENTS:																		
	INDUSTRIAL UNIT A			CAR PARK B			MAIN GATE ACCESS C			ACCESS ROAD D			ON STREET PARKING E			TOTAL MOVEMENTS			
1000-1015	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	0	0	0	0	1	1	1	2	3	0	0	0	1	3	4
	LGV	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOT	1	0	1	0	0	0	0	1	1	1	2	3	0	0	0	2	3	5
1015-1030	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	1	
	LGV	0	1	1	0	0	0	1	0	1	0	0	0	1	1	2	2	2	4
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOT	0	1	1	0	1	1	1	0	1	0	0	0	1	1	2	2	3	5
1030-1045	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	1	1	2	1	0	1	0	0	0	0	0	0	0	0	2	1	3	
	LGV	0	0	0	0	0	0	1	1	2	1	0	1	0	0	2	1	3	
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	TOT	1	1	2	1	0	1	1	1	2	1	0	1	0	0	4	2	6	
1045-1100	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1
	LGV	0	0	0	0	0	0	1	1	2	0	1	1	0	0	0	1	2	3
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOT	0	0	0	0	0	0	1	1	2	1	1	2	0	0	0	2	2	4

CLASSIFIED VEHICLE TURNING SURVEY
HMP BLANTYRE HOUSE
TUESDAY 02/07/2013

15 MIN COUNT	COUNT OF VEHICLE MOVEMENTS:																		
	INDUSTRIAL UNIT A			CAR PARK B			MAIN GATE ACCESS C			ACCESS ROAD D			ON STREET PARKING E			TOTAL MOVEMENTS			
1100-1115	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	1	0	1	1	1	2	0	1	1	0	0	0	2	2	4
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	1	0	1	1	1	2	0	1	1	0	0	0	2	2	4	
1115-1130	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	0	1	1	0	0	0	1	0	1	0	0	0	1	1	2
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	1	1	1	0	1	1	0	1	0	0	0	2	1	3	
1130-1145	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	1	1	2	1	0	1	1	1	2	0	0	0	3	2	5
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	1	1	2	2	0	2	1	1	2	0	0	0	4	2	6	
1145-1200	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	1	0	1	0	0	0	0	1	1	0	0	0	1	1	2
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	1	0	1	0	0	0	0	1	1	0	0	0	1	1	2	

CLASSIFIED VEHICLE TURNING SURVEY
HMP BLANTYRE HOUSE
TUESDAY 02/07/2013

15 MIN COUNT	COUNT OF VEHICLE MOVEMENTS:																	
	INDUSTRIAL UNIT A			CAR PARK B			MAIN GATE ACCESS C			ACCESS ROAD D			ON STREET PARKING E			TOTAL MOVEMENTS		
1200-1215	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	0	0	0	0	1	1	0	1	1	0	2	2	0	0	0	0	4
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	1	1	0	2	2	0	2	2	0	0	0	0	5	
1215-1230	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	2	0	2	0	1	1	0	0	0	1	0	1	0	0	0	3	1
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	2	0	2	0	1	1	0	0	0	1	0	1	0	0	0	3	1	
1230-1245	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	0	0	0	3	1	4	1	0	1	1	1	2	1	1	2	6	3
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	3	1	4	1	0	1	1	1	2	1	1	2	6	3	
1245-1300	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	0	0	0	1	1	2	0	0	0	1	0	1	0	0	0	2	1
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	1	1	2	0	0	0	1	0	1	0	0	0	2	1	

CLASSIFIED VEHICLE TURNING SURVEY
HMP BLANTYRE HOUSE
TUESDAY 02/07/2013

15 MIN COUNT	COUNT OF VEHICLE MOVEMENTS:																		
	INDUSTRIAL UNIT A			CAR PARK B			MAIN GATE ACCESS C			ACCESS ROAD D			ON STREET PARKING E			TOTAL MOVEMENTS			
1300-1315	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	0	1	1	0	1	1	1	1	2	0	0	0	1	3	4
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	1	1	0	1	1	1	1	2	0	0	0	1	3	4	
1315-1330	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
1330-1345	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	1	1	2	0	4	4	0	0	0	0	1	1	1	0	1	2	6	8
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	1	1	2	0	4	4	0	0	0	0	1	1	1	0	1	2	6	8	
1345-1400	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	2	2	0	1	1	0	0	0	0	0	0	0	0	0	0	3	3
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	2	2	0	1	1	0	0	0	0	0	0	0	0	0	0	3	3	

CLASSIFIED VEHICLE TURNING SURVEY
HMP BLANTYRE HOUSE
TUESDAY 02/07/2013

15 MIN COUNT	COUNT OF VEHICLE MOVEMENTS:																		
	INDUSTRIAL UNIT A			CAR PARK B			MAIN GATE ACCESS C			ACCESS ROAD D			ON STREET PARKING E			TOTAL MOVEMENTS			
1400-1415	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	0	0	0	1	1	2	2	0	2	0	0	0	3	1	4
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	0	0	1	1	2	2	0	2	0	0	0	3	1	4	
1415-1430	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	1	1	2
	LGV	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	0	0	0	1	1	1	1	2	0	0	0	1	2	3	
1430-1445	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	2	0	2	1	1	2	0	1	1	0	0	0	3	2	5
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	2	0	2	2	1	3	0	1	1	0	0	0	4	2	6	
1445-1500	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	1	1	2
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	1	1	2	

CLASSIFIED VEHICLE TURNING SURVEY
HMP BLANTYRE HOUSE
TUESDAY 02/07/2013

15 MIN COUNT	COUNT OF VEHICLE MOVEMENTS:																	
	INDUSTRIAL UNIT A			CAR PARK B			MAIN GATE ACCESS C			ACCESS ROAD D			ON STREET PARKING E			TOTAL MOVEMENTS		
1500-1515	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	
1515-1530	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	0	1	1	1	1	2	0	0	0	0	0	0	1	
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	OGV1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOT	0	0	0	0	1	1	1	2	3	0	0	0	0	0	0	1		
1530-1545	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MINIBUS	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	
TOT	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1		
1545-1600	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	0	0	0	0	0	2	1	3	0	0	0	2	1	
	LGV	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOT	1	0	1	0	0	0	0	0	0	2	1	3	0	0	0	3		

CLASSIFIED VEHICLE TURNING SURVEY
HMP BLANTYRE HOUSE
TUESDAY 02/07/2013

15 MIN COUNT	COUNT OF VEHICLE MOVEMENTS:																		
	INDUSTRIAL UNIT A			CAR PARK B			MAIN GATE ACCESS C			ACCESS ROAD D			ON STREET PARKING E			TOTAL MOVEMENTS			
1600-1615	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	1	1	0	2	2	1	0	1	0	0	0	0	0	0	1	3	4
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	1	1	0	2	2	1	0	1	0	0	0	0	0	0	1	3	4	
1615-1630	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	1	2	3	0	1	1	0	0	0	2	1	3	0	0	0	3	4	7
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	1	2	3	0	1	1	0	0	0	2	1	3	0	0	0	3	4	7	
1630-1645	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	0	3	3	1	2	3	0	1	1	0	0	0	1	6	7
	LGV	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	1	1	0	3	3	1	2	3	0	1	1	0	0	0	1	7	8	
1645-1700	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	0	1	1	1	1	2	1	5	6	0	1	1	2	8	10
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	1	1	1	1	2	1	5	6	0	1	1	2	8	10	

CLASSIFIED VEHICLE TURNING SURVEY
HMP BLANTYRE HOUSE
TUESDAY 02/07/2013

15 MIN COUNT	COUNT OF VEHICLE MOVEMENTS:																	
	INDUSTRIAL UNIT A			CAR PARK B			MAIN GATE ACCESS C			ACCESS ROAD D			ON STREET PARKING E			TOTAL MOVEMENTS		
1700-1715	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	1
	CAR	0	0	0	0	6	6	0	0	0	0	0	0	0	2	2	0	8
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	7	7	0	0	0	0	0	0	0	2	2	0	9	
1715-1730	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	0	0	0	0	2	2	1	0	1	0	1	1	1	2	3	2	5
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	2	2	1	0	1	0	1	1	1	2	3	2	5	
1730-1745	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	0	0	0	0	0	0	0	0	0	1	2	3	2	0	2	3	5
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	0	0	0	0	0	1	2	3	2	0	2	3	5	
1745-1800	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	0	0	0	0	1	1	0	1	1	0	0	0	1	0	1	1	2
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	1	1	0	1	1	0	0	0	1	0	1	1	2	

CLASSIFIED VEHICLE TURNING SURVEY
HMP BLANTYRE HOUSE
TUESDAY 02/07/2013

15 MIN COUNT	COUNT OF VEHICLE MOVEMENTS:																	
	INDUSTRIAL UNIT A			CAR PARK B			MAIN GATE ACCESS C			ACCESS ROAD D			ON STREET PARKING E			TOTAL MOVEMENTS		
1800-1815	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	0	0	0	0	0	0	1	0	1	0	0	0	0	2	2	1	2
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	0	0	1	0	1	0	0	0	0	2	2	1	2	
1815-1830	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	2	0
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	2	0	
1830-1845	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	1	1	2	0	1	1	0	0	0	1	3	4	0	1	1	2	6
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	1	1	2	0	1	1	0	0	0	1	3	4	0	1	1	2	6	
1845-1900	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	0	0	0	0	0	0	0	0	0	1	1	2	0	1	1	1	2
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	0	0	0	0	0	1	1	2	0	1	1	1	2	

CLASSIFIED VEHICLE TURNING SURVEY
HMP BLANTYRE HOUSE
TUESDAY 02/07/2013

15 MIN COUNT	COUNT OF VEHICLE MOVEMENTS:																	
	INDUSTRIAL UNIT A			CAR PARK B			MAIN GATE ACCESS C			ACCESS ROAD D			ON STREET PARKING E			TOTAL MOVEMENTS		
1900-1915	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS PC MC CAR LGV OGV1 OGV2 MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	1	1	1	0	1	0	0	0	1	1	2
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	0	0	0	1	1	1	0	1	0	0	0	1	1	2
1915-1930	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS PC MC CAR LGV OGV1 OGV2 MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	1	2	3
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	1	2	3
1930-1945	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS PC MC CAR LGV OGV1 OGV2 MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	1	0	1	1	1	2	1	0	1	3	1	4
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	0	0	1	0	1	1	1	2	1	0	1	3	1	4
1945-2000	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS PC MC CAR LGV OGV1 OGV2 MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	3	3	0	1	1	1	0	1	0	0	0	1	4	5
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	3	3	0	1	1	1	0	1	0	0	1	4	5	

CLASSIFIED VEHICLE TURNING SURVEY
HMP BLANTYRE HOUSE
TUESDAY 02/07/2013

15 MIN COUNT	COUNT OF VEHICLE MOVEMENTS:																		
	INDUSTRIAL UNIT A			CAR PARK B			MAIN GATE ACCESS C			ACCESS ROAD D			ON STREET PARKING E			TOTAL MOVEMENTS			
2000- 2015	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	
2015- 2030	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2030- 2045	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	0	6	6	1	0	1	0	0	0	1	0	1	2	6	8
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	6	6	1	0	1	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	6	6	1	0	1	0	0	0	2	0	2	3	6	9	
2045- 2100	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

CLASSIFIED VEHICLE TURNING SURVEY
HMP BLANTYRE HOUSE
TUESDAY 02/07/2013

15 MIN COUNT	COUNT OF VEHICLE MOVEMENTS:																	
	INDUSTRIAL UNIT A			CAR PARK B			MAIN GATE ACCESS C			ACCESS ROAD D			ON STREET PARKING E			TOTAL MOVEMENTS		
2100-2115	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2115-2130	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2130-2145	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1	
2145-2200	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

CLASSIFIED VEHICLE TURNING SURVEY
HMP BLANTYRE HOUSE
TUESDAY 02/07/2013

15 MIN COUNT	COUNT OF VEHICLE MOVEMENTS:																	
	INDUSTRIAL UNIT A			CAR PARK B			MAIN GATE ACCESS C			ACCESS ROAD D			ON STREET PARKING E			TOTAL MOVEMENTS		
2200-2215	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2215-2230	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2230-2245	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2245-2300	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLASSIFIED VEHICLE TURNING SURVEY
HMP BLANTYRE HOUSE
TUESDAY 02/07/2013

15 MIN COUNT	COUNT OF VEHICLE MOVEMENTS:																	
	INDUSTRIAL UNIT A			CAR PARK B			MAIN GATE ACCESS C			ACCESS ROAD D			ON STREET PARKING E			TOTAL MOVEMENTS		
2300-2315	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2315-2330	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2330-2345	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2345-0000	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	LGV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

CLASSIFIED VEHICLE TURNING SURVEY
HMP BLANTYRE HOUSE
TUESDAY 02/07/2013

15 MIN COUNT	COUNT OF VEHICLE MOVEMENTS:																	
	INDUSTRIAL UNIT A			CAR PARK B			MAIN GATE ACCESS C			ACCESS ROAD D			ON STREET PARKING E			TOTAL MOVEMENTS		
0600-0000	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT	IN	OUT	TOT
CLASS	PC	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1
	MC	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	1	1
	CAR	14	14	28	42	42	84	18	19	37	33	37	70	19	14	33	126	126
	LGV	2	2	4	0	0	0	3	3	6	1	1	2	2	1	3	8	7
	OGV1	0	0	0	0	0	0	3	2	5	0	0	0	0	0	0	3	2
	OGV2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	16	16	32	43	43	86	24	24	48	34	39	73	21	15	36	138	137	

APPENDIX C
Traffic Survey Results

Latchmere Close Surveys

Existing

53 Units

Proposed	AM Peak (0800-0900)		PM Peak (1700-1800)		Daily	
	Arr	Dep	Arr	Dep	Arr	Dep
Existing - 53 Units	11	21	18	8	157	163
Proposed - 89 Units	18	35	30	13	264	274

Notes:

Latchmere Close and Bainbridge Close - 46 houses and 7 apartments in Latchmere Lodge
 Identified network peaks for modelling: 0745-0845, 1730-1830.

Distribution Based on Latchmere Close Site Access Manual Traffic Survey

Proposed	AM Peak (0730-0930)		PM Peak (1630-1830)	
	Arr	Dep	Arr	Dep
Church Road (E)	7	26	18	17
Church Road (W)	12	8	14	6
Total	19	34	32	23

Proposed	AM Peak (0730-0930)		PM Peak (1630-1830)	
	Arr	Dep	Arr	Dep
Church Road (E)	37%	76%	56%	74%
Church Road (W)	63%	24%	44%	26%
Total	100%	100%	100%	100%

Proposed	AM Peak (0800-0900)		PM Peak (1700-1800)	
	Arr	Dep	Arr	Dep
Church Road (E)	7	27	17	10
Church Road (W)	12	8	13	4
Total	18	35	30	13

CLASSIFIED VEHICLE TURNING SURVEY
SITE 1- A307 UPPER HAM ROAD / CHURCH LANE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):									TOT (ALL)
		UPPER HAM ROAD (SB)			CHURCH LANE			UPPER HAM ROAD (NB)			
0730 - 0745		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	4	4	1	1	2	10	0	10	
	MC	0	3	3	0	0	0	5	0	5	8
	CAR	3	56	59	2	2	4	134	7	141	204
	LGV	1	16	17	0	3	3	51	0	51	71
	R2	0	3	3	0	0	0	5	0	5	8
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	3	3	0	0	0	3	0	3	6	
TOT		4	85	89	3	6	9	208	7	215	313
0745 - 0800		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	1	1	1	3	4	10	0	10	
	MC	0	3	3	0	1	1	6	0	6	10
	CAR	1	64	65	5	5	10	131	9	140	215
	LGV	0	22	22	0	0	0	32	1	33	55
	R2	0	5	5	0	0	0	7	0	7	12
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	2	0	2	2
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	4	4	0	0	0	3	0	3	7	
TOT		1	99	100	6	9	15	191	10	201	316
0800 - 0815		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	5	5	3	9	12	8	2	10	
	MC	0	2	2	0	0	0	3	1	4	6
	CAR	0	85	85	6	7	13	128	8	136	234
	LGV	0	16	16	0	1	1	27	0	27	44
	R2	1	3	4	0	0	0	6	0	6	10
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	1	1	0	0	0	1	0	1	2
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	2	2	0	0	0	5	0	5	7	
TOT		1	114	115	9	17	26	178	11	189	330
0815 - 0830		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	4	4	0	2	2	5	0	5	
	MC	0	2	2	0	0	0	7	0	7	9
	CAR	6	96	102	4	1	5	108	6	114	221
	LGV	1	14	15	1	0	1	27	0	27	43
	R2	2	3	5	0	0	0	1	0	1	6
	R3	0	1	1	0	0	0	0	0	0	1
	R4	0	0	0	0	0	0	1	0	1	1
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	5	5	0	0	0	4	0	4	9	
TOT		9	125	134	5	3	8	153	6	159	301

CLASSIFIED VEHICLE TURNING SURVEY
SITE 1- A307 UPPER HAM ROAD / CHURCH LANE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):									TOT (ALL)
		UPPER HAM ROAD (SB)			CHURCH LANE			UPPER HAM ROAD (NB)			
0830 - 0845		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	5	5	1	0	1	9	2	11	17
	MC	0	3	3	0	0	0	7	0	7	10
	CAR	2	88	90	3	1	4	90	4	94	188
	LGV	0	14	14	0	1	1	25	1	26	41
	R2	1	3	4	1	1	2	6	0	6	12
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	3	3	0	0	0	1	0	1	4	
TOT		3	116	119	5	3	8	138	7	145	272
0845 - 0900		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	4	4	2	0	2	9	0	9	15
	MC	0	6	6	0	0	0	4	0	4	10
	CAR	3	74	77	4	1	5	78	2	80	162
	LGV	0	17	17	0	0	0	23	0	23	40
	R2	0	5	5	0	0	0	2	0	2	7
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	1	1	0	0	0	2	0	2	3	
TOT		3	107	110	6	1	7	118	2	120	237
0900 - 0915		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	5	5	1	0	1	4	0	4	10
	MC	0	3	3	0	0	0	2	0	2	5
	CAR	0	81	81	3	1	4	118	7	125	210
	LGV	0	19	19	0	0	0	24	0	24	43
	R2	0	1	1	0	0	0	8	0	8	9
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	1	1	0	0	0	2	0	2	3	
TOT		0	110	110	4	1	5	158	7	165	280
0915 - 0930		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	1	1	0	0	0	8	0	8	9
	MC	0	1	1	0	0	0	6	0	6	7
	CAR	3	89	92	5	0	5	106	2	108	205
	LGV	1	20	21	0	2	2	25	0	25	48
	R2	0	9	9	0	1	1	5	0	5	15
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	1	1	0	0	0	0	0	0	1
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	3	3	0	0	0	2	0	2	5	
TOT		4	124	128	5	3	8	152	2	154	290

CLASSIFIED VEHICLE TURNING SURVEY
SITE 1- A307 UPPER HAM ROAD / CHURCH LANE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):									TOT (ALL)
		UPPER HAM ROAD (SB)			CHURCH LANE			UPPER HAM ROAD (NB)			
0730 - 0930		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	
CLASS	PC	0	29	29	9	15	24	63	4	67	120
	MC	0	23	23	0	1	1	40	1	41	65
	CAR	18	633	651	32	18	50	893	45	938	1639
	LGV	3	138	141	1	7	8	234	2	236	385
	R2	4	32	36	1	2	3	40	0	40	79
	R3	0	1	1	0	0	0	0	0	0	1
	R4	0	2	2	0	0	0	4	0	4	6
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	22	22	0	0	0	22	0	22	44	
TOT		25	880	905	43	43	86	1296	52	1348	2339

CLASSIFIED VEHICLE TURNING SURVEY
SITE 1- A307 UPPER HAM ROAD / CHURCH LANE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):									TOT (ALL)
		UPPER HAM ROAD (SB)			CHURCH LANE			UPPER HAM ROAD (NB)			
1630 - 1645		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	1	3	4	0	0	0	4	0	4	
	MC	0	5	5	1	0	1	3	0	3	9
	CAR	9	101	110	9	2	11	89	11	100	221
	LGV	1	39	40	0	2	2	23	1	24	66
	R2	0	2	2	0	0	0	2	0	2	4
	R3	0	1	1	0	0	0	0	0	0	1
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
A6	0	0	0	0	0	0	0	0	0	0	
BUS	0	2	2	0	0	0	3	0	3	5	
TOT		11	153	164	10	4	14	124	12	136	314
1645 - 1700		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	3	2	5	0	0	0	3	1	4	
	MC	0	1	1	0	0	0	2	0	2	3
	CAR	4	97	101	11	8	19	91	4	95	215
	LGV	1	25	26	0	0	0	16	0	16	42
	R2	0	3	3	0	0	0	2	0	2	5
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	1	1	0	0	0	0	0	0	1
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
A6	0	0	0	0	0	0	0	0	0	0	
BUS	0	4	4	0	0	0	3	0	3	7	
TOT		8	133	141	11	8	19	117	5	122	282
1700 - 1715		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	2	4	6	2	0	2	3	0	3	
	MC	0	4	4	0	0	0	2	0	2	6
	CAR	4	96	100	0	3	3	73	2	75	178
	LGV	3	11	14	1	1	2	21	1	22	38
	R2	0	3	3	0	0	0	1	0	1	4
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
A6	0	0	0	0	0	0	0	0	0	0	
BUS	0	3	3	0	0	0	2	0	2	5	
TOT		9	121	130	3	4	7	102	3	105	242
1715 - 1730		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	4	4	1	0	1	2	0	2	
	MC	0	1	1	0	0	0	2	0	2	3
	CAR	3	82	85	13	2	15	133	7	140	240
	LGV	1	17	18	1	0	1	18	0	18	37
	R2	0	2	2	0	0	0	0	0	0	2
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
A6	0	0	0	0	0	0	0	0	0	0	
BUS	0	3	3	0	0	0	4	0	4	7	
TOT		4	109	113	15	2	17	159	7	166	296

CLASSIFIED VEHICLE TURNING SURVEY
SITE 1- A307 UPPER HAM ROAD / CHURCH LANE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):									TOT (ALL)
		UPPER HAM ROAD (SB)			CHURCH LANE			UPPER HAM ROAD (NB)			
1730 - 1745		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	1	3	4	0	1	1	3	0	3	
	MC	0	3	3	0	0	0	4	0	4	7
	CAR	7	125	132	6	4	10	92	5	97	239
	LGV	0	23	23	0	0	0	10	0	10	33
	R2	0	1	1	0	0	0	0	0	0	1
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
A6	0	0	0	0	0	0	0	0	0	0	
BUS	0	3	3	0	0	0	2	0	2	5	
TOT		8	158	166	6	5	11	111	5	116	293
1745 - 1800		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	1	7	8	0	0	0	5	0	5	
	MC	0	8	8	0	0	0	0	0	0	8
	CAR	3	117	120	11	4	15	118	10	128	263
	LGV	1	27	28	0	0	0	9	1	10	38
	R2	0	1	1	0	0	0	1	0	1	2
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
A6	0	0	0	0	0	0	0	0	0	0	
BUS	0	1	1	0	0	0	1	0	1	2	
TOT		5	161	166	11	4	15	134	11	145	326
1800 - 1815		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	2	7	9	0	0	0	4	1	5	
	MC	0	4	4	0	0	0	4	0	4	8
	CAR	9	126	135	12	2	14	108	3	111	260
	LGV	2	25	27	1	1	2	13	1	14	43
	R2	0	3	3	0	0	0	1	0	1	4
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
A6	0	0	0	0	0	0	0	0	0	0	
BUS	0	2	2	0	0	0	2	0	2	4	
TOT		13	167	180	13	3	16	132	5	137	333
1815 - 1830		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	8	8	1	0	1	6	0	6	
	MC	0	7	7	0	0	0	2	0	2	9
	CAR	2	132	134	3	3	6	119	6	125	265
	LGV	1	17	18	0	1	1	11	0	11	30
	R2	0	1	1	0	0	0	1	0	1	2
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
A6	0	0	0	0	0	0	0	0	0	0	
BUS	0	2	2	0	0	0	4	0	4	6	
TOT		3	167	170	4	4	8	143	6	149	327

CLASSIFIED VEHICLE TURNING SURVEY
SITE 1- A307 UPPER HAM ROAD / CHURCH LANE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):									TOT (ALL)
		UPPER HAM ROAD (SB)			CHURCH LANE			UPPER HAM ROAD (NB)			
1630 - 1830		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	
CLASS	PC	10	38	48	4	1	5	30	2	32	85
	MC	0	33	33	1	0	1	19	0	19	53
	CAR	41	876	917	65	28	93	823	48	871	1881
	LGV	10	184	194	3	5	8	121	4	125	327
	R2	0	16	16	0	0	0	8	0	8	24
	R3	0	1	1	0	0	0	0	0	0	1
	R4	0	1	1	0	0	0	0	0	0	1
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	20	20	0	0	0	21	0	21	41	
TOT		61	1169	1230	73	34	107	1022	54	1076	2413

CLASSIFIED VEHICLE TURNING SURVEY
SITE 2 - CHURCH LANE / LATCHMERE CLOSE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):									TOT (ALL)
		CHURCH LANE (WB)			LATCHMERE CLOSE			CHURCH LANE (EB)			
0730 - 0745		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	1	1	0	1	1	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0
	CAR	0	2	2	1	4	5	11	1	12	19
	LGV	0	3	3	0	0	0	0	0	0	3
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		0	6	6	1	5	6	11	1	12	24
0745 - 0800		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	6	6	1	3	4	0	0	0	
	MC	0	0	0	0	0	0	0	0	0	0
	CAR	3	8	11	1	3	4	10	0	10	25
	LGV	1	0	1	0	0	0	1	0	1	2
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		4	14	18	2	6	8	11	0	11	37
0800 - 0815		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	1	10	11	1	1	2	4	0	4	
	MC	0	0	0	0	0	0	1	0	1	1
	CAR	0	7	7	1	1	2	10	1	11	20
	LGV	0	0	0	0	0	0	0	0	0	0
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		1	17	18	2	2	4	15	1	16	38
0815 - 0830		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	1	1	0	1	1	3	0	3	
	MC	0	0	0	0	1	1	0	0	0	1
	CAR	1	5	6	1	3	4	9	1	10	20
	LGV	0	1	1	0	1	1	0	0	0	2
	R2	0	0	0	0	0	0	0	1	1	1
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		1	7	8	1	6	7	12	2	14	29

CLASSIFIED VEHICLE TURNING SURVEY
SITE 2 - CHURCH LANE / LATCHMERE CLOSE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):									TOT (ALL)
		CHURCH LANE (WB)			LATCHMERE CLOSE			CHURCH LANE (EB)			
0830 - 0845		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	1	1	0	0	0	3	0	3	4
	MC	0	0	0	0	0	0	0	0	0	0
	CAR	0	4	4	0	2	2	6	2	8	14
	LGV	0	1	1	0	0	0	0	1	1	2
	R2	0	2	2	0	0	0	0	2	2	4
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		0	8	8	0	2	2	9	5	14	24
0845 - 0900		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	2	2	0	0	0	0	0	0	2
	MC	0	0	0	0	0	0	0	0	0	0
	CAR	0	5	5	2	0	2	3	1	4	11
	LGV	0	0	0	0	1	1	0	1	1	2
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		0	7	7	2	1	3	3	2	5	15
0900 - 0915		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	0	0	0	2	2	0	0	0	2
	MC	0	0	0	0	0	0	0	0	0	0
	CAR	0	3	3	0	0	0	5	1	6	9
	LGV	0	0	0	0	0	0	0	0	0	0
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		0	3	3	0	2	2	5	1	6	11
0915 - 0930		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	1	1	0	0	0	1	0	1	2
	MC	0	0	0	0	0	0	0	0	0	0
	CAR	1	4	5	0	2	2	5	0	5	12
	LGV	0	2	2	0	0	0	2	0	2	4
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		1	7	8	0	2	2	8	0	8	18

CLASSIFIED VEHICLE TURNING SURVEY
SITE 2 - CHURCH LANE / LATCHMERE CLOSE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):									TOT (ALL)
		CHURCH LANE (WB)			LATCHMERE CLOSE			CHURCH LANE (EB)			
0730 - 0930		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	
CLASS	PC	1	22	23	2	8	10	11	0	11	44
	MC	0	0	0	0	1	1	1	0	1	2
	CAR	5	38	43	6	15	21	59	7	66	130
	LGV	1	7	8	0	2	2	3	2	5	15
	R2	0	2	2	0	0	0	0	3	3	5
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		7	69	76	8	26	34	74	12	86	196

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CLASSIFIED VEHICLE TURNING SURVEY
SITE 2 - CHURCH LANE / LATCHMERE CLOSE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):									TOT (ALL)
		CHURCH LANE (WB)			LATCHMERE CLOSE			CHURCH LANE (EB)			
1630 - 1645		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	1	1	2	0	0	0	1	0	1	3
	MC	0	0	0	0	0	0	0	0	0	0
	CAR	1	13	14	1	0	1	8	2	10	25
	LGV	1	1	2	0	0	0	1	1	2	4
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		3	15	18	1	0	1	10	3	13	32
1645 - 1700		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	2	2	0	0	0	3	3	6	8
	MC	0	1	1	0	0	0	0	0	0	1
	CAR	1	13	14	1	2	3	4	0	4	21
	LGV	0	1	1	0	1	1	1	0	1	3
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		1	17	18	1	3	4	8	3	11	33
1700 - 1715		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	3	3	0	0	0	2	0	2	5
	MC	0	2	2	0	0	0	0	0	0	2
	CAR	1	11	12	1	3	4	3	3	6	22
	LGV	0	1	1	0	2	2	4	0	4	7
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		1	17	18	1	5	6	9	3	12	36
1715 - 1730		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	5	5	0	0	0	0	0	0	5
	MC	0	0	0	0	0	0	0	0	0	0
	CAR	0	14	14	1	1	2	5	0	5	21
	LGV	0	3	3	0	0	0	1	0	1	4
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		0	22	22	1	1	2	6	0	6	30

CLASSIFIED VEHICLE TURNING SURVEY
SITE 2 - CHURCH LANE / LATCHMERE CLOSE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):									TOT (ALL)
		CHURCH LANE (WB)			LATCHMERE CLOSE			CHURCH LANE (EB)			
1730 - 1745		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	1	2	3	0	0	0	1	0	1	4
	MC	0	0	0	0	0	0	0	0	0	0
	CAR	2	13	15	1	1	2	3	2	5	22
	LGV	0	2	2	0	0	0	0	0	0	2
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
A6	0	0	0	0	0	0	0	0	0	0	
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		3	17	20	1	1	2	4	2	6	28
1745 - 1800		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	1	10	11	0	0	0	1	0	1	12
	MC	0	0	0	0	0	0	0	0	0	0
	CAR	1	13	14	0	0	0	8	1	9	23
	LGV	0	0	0	0	0	0	2	0	2	2
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
A6	0	0	0	0	0	0	0	0	0	0	
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		2	23	25	0	0	0	11	1	12	37
1800 - 1815		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	1	3	4	0	0	0	1	0	1	5
	MC	0	0	0	0	0	0	0	0	0	0
	CAR	2	15	17	0	5	5	3	0	3	25
	LGV	0	0	0	0	0	0	1	0	1	1
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
A6	0	0	0	0	0	0	0	0	0	0	
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		3	18	21	0	5	5	5	0	5	31
1815 - 1830		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	1	4	5	0	0	0	0	0	0	5
	MC	0	2	2	0	0	0	0	0	0	2
	CAR	4	15	19	1	2	3	8	2	10	32
	LGV	0	2	2	0	0	0	0	0	0	2
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
A6	0	0	0	0	0	0	0	0	0	0	
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		5	23	28	1	2	3	8	2	10	41

CLASSIFIED VEHICLE TURNING SURVEY
SITE 2 - CHURCH LANE / LATCHMERE CLOSE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):									TOT (ALL)
		CHURCH LANE (WB)			LATCHMERE CLOSE			CHURCH LANE (EB)			
1630 - 1830		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	
CLASS	PC	5	30	35	0	0	0	9	3	12	47
	MC	0	5	5	0	0	0	0	0	0	5
	CAR	12	107	119	6	14	20	42	10	52	191
	LGV	1	10	11	0	3	3	10	1	11	25
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		18	152	170	6	17	23	61	14	75	268

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CLASSIFIED VEHICLE TURNING SURVEY
SITE 3 - CHURCH LANE / LATCHMERE LANE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):									TOT (ALL)
		CHURCH LANE (WB)			LATCHMERE LANE			CHURCH LANE (EB)			
0730 - 0745		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	
CLASS	PC	3	1	4	0	9	9	1	0	1	14
	MC	0	0	0	0	0	0	0	0	0	0
	CAR	0	0	0	2	16	18	11	4	15	33
	LGV	0	0	0	3	0	3	0	0	0	3
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		3	1	4	5	25	30	12	4	16	50
0745 - 0800		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	1	2	3	4	11	15	3	0	3	21
	MC	0	0	0	0	1	1	0	0	0	1
	CAR	2	3	5	8	23	31	11	2	13	49
	LGV	1	0	1	1	3	4	1	0	1	6
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	1	0	1	0	0	0	0	0	0	1	
TOT		5	5	10	13	38	51	15	2	17	78
0800 - 0815		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	1	2	3	9	8	17	5	0	5	25
	MC	0	0	0	0	0	0	1	0	1	1
	CAR	3	3	6	4	23	27	10	1	11	44
	LGV	1	0	1	0	1	1	0	0	0	2
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		5	5	10	13	32	45	16	1	17	72
0815 - 0830		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	2	0	2	1	6	7	2	2	4	13
	MC	0	0	0	0	1	1	1	0	1	2
	CAR	3	3	6	3	18	21	9	3	12	39
	LGV	0	1	1	0	1	1	0	1	1	3
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		5	4	9	4	26	30	12	6	18	57

CLASSIFIED VEHICLE TURNING SURVEY
SITE 3 - CHURCH LANE / LATCHMERE LANE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):									TOT (ALL)
		CHURCH LANE (WB)			LATCHMERE LANE			CHURCH LANE (EB)			
0830 - 0845		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	1	1	2	0	6	6	3	0	3	11
	MC	0	0	0	0	1	1	0	0	0	1
	CAR	6	2	8	2	9	11	5	3	8	27
	LGV	0	0	0	1	1	2	0	0	0	2
	R2	0	1	1	1	0	1	0	0	0	2
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		7	4	11	4	17	21	8	3	11	43
0845 - 0900		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	2	2	0	6	6	0	0	0	8
	MC	0	0	0	0	0	0	0	0	0	0
	CAR	1	3	4	2	9	11	2	1	3	18
	LGV	2	0	2	0	0	0	0	1	1	3
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		3	5	8	2	15	17	2	2	4	29
0900 - 0915		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	0	0	0	7	7	2	0	2	9
	MC	0	0	0	0	1	1	0	0	0	1
	CAR	5	1	6	2	4	6	5	0	5	17
	LGV	0	0	0	0	1	1	0	0	0	1
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		5	1	6	2	13	15	7	0	7	28
0915 - 0930		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	2	1	3	0	3	3	1	0	1	7
	MC	0	0	0	0	1	1	0	0	0	1
	CAR	2	4	6	1	9	10	3	4	7	23
	LGV	0	0	0	2	1	3	1	1	2	5
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		4	5	9	3	14	17	5	5	10	36

CLASSIFIED VEHICLE TURNING SURVEY
SITE 3 - CHURCH LANE / LATCHMERE LANE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):									TOT (ALL)
		CHURCH LANE (WB)			LATCHMERE LANE			CHURCH LANE (EB)			
0730 - 0930		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	
CLASS	PC	10	9	19	14	56	70	17	2	19	108
	MC	0	0	0	0	5	5	2	0	2	7
	CAR	22	19	41	24	111	135	56	18	74	250
	LGV	4	1	5	7	8	15	2	3	5	25
	R2	0	1	1	1	0	1	0	0	0	2
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	1	0	1	0	0	0	0	0	0	1	
TOT		37	30	67	46	180	226	77	23	100	393

CLASSIFIED VEHICLE TURNING SURVEY
SITE 3 - CHURCH LANE / LATCHMERE LANE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):									TOT (ALL)
		CHURCH LANE (WB)			LATCHMERE LANE			CHURCH LANE (EB)			
1630 - 1645		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	1	0	1	2	1	3	1	0	1	5
	MC	1	0	1	0	0	0	0	0	0	1
	CAR	2	5	7	9	5	14	2	6	8	29
	LGV	2	0	2	2	0	2	0	1	1	5
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		6	5	11	13	6	19	3	7	10	40
1645 - 1700		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	0	0	2	1	3	1	2	3	6
	MC	0	0	0	1	0	1	0	0	0	1
	CAR	4	9	13	11	6	17	3	3	6	36
	LGV	0	0	0	1	0	1	1	1	2	3
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		4	9	13	15	7	22	5	6	11	46
1700 - 1715		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	1	1	2	2	4	0	2	2	7
	MC	0	1	1	1	0	1	0	0	0	2
	CAR	3	7	10	5	0	5	3	3	6	21
	LGV	1	0	1	1	1	2	1	5	6	9
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		4	9	13	9	3	12	4	10	14	39
1715 - 1730		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	1	1	4	1	5	0	0	0	6
	MC	0	0	0	0	0	0	0	0	0	0
	CAR	4	2	6	12	3	15	3	3	6	27
	LGV	1	3	4	0	0	0	0	1	1	5
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		5	6	11	16	4	20	3	4	7	38

CLASSIFIED VEHICLE TURNING SURVEY
SITE 3 - CHURCH LANE / LATCHMERE LANE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):									TOT (ALL)
		CHURCH LANE (WB)			LATCHMERE LANE			CHURCH LANE (EB)			
1730 - 1745		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	1	0	1	2	0	2	0	1	1	4
	MC	0	0	0	0	1	1	0	0	0	1
	CAR	3	3	6	12	5	17	2	2	4	27
	LGV	0	1	1	1	0	1	0	0	0	2
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		4	4	8	15	6	21	2	3	5	34
1745 - 1800		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	0	0	11	0	11	0	1	1	12
	MC	0	0	0	0	1	1	0	0	0	1
	CAR	4	1	5	13	9	22	4	4	8	35
	LGV	0	2	2	0	0	0	1	1	2	4
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		4	3	7	24	10	34	5	6	11	52
1800 - 1815		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	0	0	4	1	5	1	0	1	6
	MC	0	0	0	0	0	0	0	0	0	0
	CAR	4	4	8	13	3	16	2	8	10	34
	LGV	1	0	1	0	0	0	0	1	1	2
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		5	4	9	17	4	21	3	9	12	42
1815 - 1830		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	1	1	2	4	2	6	0	0	0	8
	MC	0	0	0	2	0	2	0	0	0	2
	CAR	4	7	11	12	6	18	4	6	10	39
	LGV	0	0	0	2	0	2	0	0	0	2
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		5	8	13	20	8	28	4	6	10	51

CLASSIFIED VEHICLE TURNING SURVEY
SITE 3 - CHURCH LANE / LATCHMERE LANE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):									TOT (ALL)
		CHURCH LANE (WB)			LATCHMERE LANE			CHURCH LANE (EB)			
1630 - 1830		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	
CLASS	PC	3	3	6	31	8	39	3	6	9	54
	MC	1	1	2	4	2	6	0	0	0	8
	CAR	28	38	66	87	37	124	23	35	58	248
	LGV	5	6	11	7	1	8	3	10	13	32
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		37	48	85	129	48	177	29	51	80	342

CLASSIFIED VEHICLE TURNING SURVEY
SITE 4 - HAM GATE AVENUE / CHURCH LANE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):									TOT (ALL)
		HAM GATE AVENUE (WB)			CHURCH LANE			HAM GATE AVENUE (EB)			
0730 - 0745		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	4	2	6	0	10	10	20	0	20	
	MC	0	0	0	0	0	0	0	0	0	0
	CAR	2	12	14	3	24	27	11	0	11	52
	LGV	0	0	0	1	0	1	0	0	0	1
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		6	14	20	4	34	38	31	0	31	89
0745 - 0800		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	3	12	15	3	11	14	16	0	16	
	MC	0	0	0	0	1	1	1	0	1	2
	CAR	6	30	36	6	27	33	25	0	25	94
	LGV	1	0	1	0	4	4	0	1	1	6
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		10	42	52	9	43	52	42	1	43	147
0800 - 0815		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	3	2	5	3	10	13	9	0	9	
	MC	0	0	0	0	1	1	1	0	1	2
	CAR	6	33	39	9	23	32	50	1	51	122
	LGV	1	0	1	1	0	1	1	0	1	3
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		10	35	45	13	34	47	61	1	62	154
0815 - 0830		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	2	9	11	0	8	8	9	0	9	
	MC	0	1	1	0	2	2	2	0	2	5
	CAR	5	15	20	4	22	26	55	1	56	102
	LGV	1	0	1	0	1	1	0	1	1	3
	R2	0	0	0	0	0	0	1	0	1	1
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		8	25	33	4	33	37	67	2	69	139

CLASSIFIED VEHICLE TURNING SURVEY
SITE 4 - HAM GATE AVENUE / CHURCH LANE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):									TOT (ALL)
		HAM GATE AVENUE (WB)			CHURCH LANE			HAM GATE AVENUE (EB)			
0830 - 0845		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	2	8	10	0	10	10	6	0	6	26
	MC	0	0	0	0	1	1	2	0	2	3
	CAR	6	16	22	0	15	15	37	2	39	76
	LGV	0	1	1	1	0	1	1	1	2	4
	R2	0	1	1	0	0	0	0	1	1	2
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		8	26	34	1	26	27	46	4	50	111
0845 - 0900		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	2	0	2	0	6	6	5	0	5	13
	MC	0	0	0	0	0	0	1	0	1	1
	CAR	4	17	21	1	10	11	27	1	28	60
	LGV	2	2	4	0	0	0	0	2	2	6
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		8	19	27	1	16	17	33	3	36	80
0900 - 0915		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	0	1	1	0	9	9	5	0	5	15
	MC	0	0	0	0	1	1	1	0	1	2
	CAR	5	11	16	2	7	9	17	3	20	45
	LGV	0	0	0	0	1	1	2	0	2	3
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		5	12	17	2	18	20	25	3	28	65
0915 - 0930		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	2	4	6	0	4	4	4	1	5	15
	MC	0	0	0	0	1	1	0	0	0	1
	CAR	3	8	11	0	10	10	17	2	19	40
	LGV	0	0	0	2	0	2	0	0	0	2
	R2	0	0	0	0	0	0	0	1	1	1
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		5	12	17	2	15	17	21	4	25	59

CLASSIFIED VEHICLE TURNING SURVEY
SITE 4 - HAM GATE AVENUE / CHURCH LANE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):									TOT (ALL)
		HAM GATE AVENUE (WB)			CHURCH LANE			HAM GATE AVENUE (EB)			
0730 - 0930		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	
CLASS	PC	18	38	56	6	68	74	74	1	75	205
	MC	0	1	1	0	7	7	8	0	8	16
	CAR	37	142	179	25	138	163	239	10	249	591
	LGV	5	3	8	5	6	11	4	5	9	28
	R2	0	1	1	0	0	0	1	2	3	4
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		60	185	245	36	219	255	326	18	344	844

CLASSIFIED VEHICLE TURNING SURVEY
SITE 4 - HAM GATE AVENUE / CHURCH LANE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):									TOT (ALL)
		HAM GATE AVENUE (WB)			CHURCH LANE			HAM GATE AVENUE (EB)			
1630 - 1645		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	1	6	7	0	0	0	1	1	2	9
	MC	0	1	1	0	0	0	0	0	0	1
	CAR	14	16	30	2	5	7	25	3	28	65
	LGV	1	0	1	0	0	0	0	2	2	3
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		16	23	39	2	5	7	26	6	32	78
1645 - 1700		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	3	4	7	0	2	2	4	0	4	13
	MC	1	0	1	0	0	0	1	0	1	2
	CAR	11	14	25	3	9	12	14	1	15	52
	LGV	0	0	0	0	1	1	1	0	1	2
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		15	18	33	3	12	15	20	1	21	69
1700 - 1715		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	4	29	33	0	0	0	4	0	4	37
	MC	1	2	3	1	0	1	0	0	0	4
	CAR	4	23	27	1	7	8	14	3	17	52
	LGV	1	0	1	0	1	1	0	1	1	3
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		10	54	64	2	8	10	18	4	22	96
1715 - 1730		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	5	9	14	0	1	1	2	1	3	18
	MC	0	0	0	0	0	0	0	0	0	0
	CAR	19	12	31	0	5	5	13	1	14	50
	LGV	0	0	0	4	0	4	0	0	0	4
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		24	21	45	4	6	10	15	2	17	72

CLASSIFIED VEHICLE TURNING SURVEY
SITE 4 - HAM GATE AVENUE / CHURCH LANE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):									
		HAM GATE AVENUE (WB)			CHURCH LANE			HAM GATE AVENUE (EB)			TOT (ALL)
1730 - 1745		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	
CLASS	PC	3	9	12	0	0	0	5	0	5	17
	MC	0	2	2	0	0	0	0	0	0	2
	CAR	14	13	27	0	5	5	12	2	14	46
	LGV	1	0	1	2	0	2	1	2	3	6
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
A6	0	0	0	0	0	0	0	0	0	0	
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		18	24	42	2	5	7	18	4	22	71
1745 - 1800		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	9	9	18	0	0	0	13	0	13	31
	MC	1	0	1	0	0	0	0	0	0	1
	CAR	17	18	35	2	4	6	15	3	18	59
	LGV	0	1	1	0	1	1	0	1	1	3
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
A6	0	0	0	0	0	0	0	0	0	0	
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		27	28	55	2	5	7	28	4	32	94
1800 - 1815		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	8	18	26	0	2	2	5	0	5	33
	MC	0	1	1	0	0	0	1	0	1	2
	CAR	16	21	37	0	6	6	13	4	17	60
	LGV	0	0	0	0	0	0	1	1	2	2
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
A6	0	0	0	0	0	0	0	0	0	0	
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		24	40	64	0	8	8	20	5	25	97
1815 - 1830		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	7	14	21	0	1	1	7	0	7	29
	MC	2	0	2	0	0	0	0	0	0	2
	CAR	11	10	21	5	5	10	8	0	8	39
	LGV	0	0	0	0	0	0	0	1	1	1
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
A6	0	0	0	0	0	0	0	0	0	0	
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		20	24	44	5	6	11	15	1	16	71

CLASSIFIED VEHICLE TURNING SURVEY
SITE 4 - HAM GATE AVENUE / CHURCH LANE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):									TOT (ALL)
		HAM GATE AVENUE (WB)			CHURCH LANE			HAM GATE AVENUE (EB)			
1630 - 1830		LEFT	AHEAD	TOT	LEFT	RIGHT	TOT	AHEAD	RIGHT	TOT	
CLASS	PC	40	98	138	0	6	6	41	2	43	187
	MC	5	6	11	1	0	1	2	0	2	14
	CAR	106	127	233	13	46	59	114	17	131	423
	LGV	3	1	4	6	3	9	3	8	11	24
	R2	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	0	0	0	0	0	
TOT		154	232	386	20	55	75	160	27	187	648

CLASSIFIED VEHICLE TURNING SURVEY
SITE 5 - LATCHMERE LANE / TUDOR DRIVE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):																TOT (ALL)
		LATCHMERE LANE (SB)				TUDOR DRIVE (WB)				LATCHMERE LANE (NB)				TUDOR DRIVE (EB)				
0730 - 0745		LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	
CLASS	PC	0	2	1	3	0	3	1	4	0	4	0	4	2	3	0	5	16
	MC	1	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
	CAR	4	2	2	8	3	44	8	55	0	3	3	6	6	40	2	48	117
	LGV	2	0	1	3	0	24	3	27	0	0	0	0	0	8	0	8	38
	R2	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	3
	R3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
	R4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4	
TOT		7	4	4	15	3	76	12	91	0	8	3	11	8	54	2	64	181
0745 - 0800		LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	1	1	0	2	0	4	2	6	0	8	0	8	0	1	0	1	17
	MC	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
	CAR	4	4	6	14	1	53	8	62	4	9	4	17	10	36	4	50	143
	LGV	1	0	0	1	0	14	3	17	0	1	0	1	1	10	0	11	30
	R2	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
	R3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BUS	0	1	0	1	0	3	0	3	0	0	0	0	0	2	0	2	6	
TOT		6	6	6	18	1	76	13	90	4	18	4	26	11	51	4	66	200
0800 - 0815		LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	1	0	1	2	1	2	1	4	4	11	0	15	0	1	0	1	22
	MC	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
	CAR	5	3	2	10	3	59	11	73	2	8	6	16	8	53	2	63	162
	LGV	1	0	0	1	1	21	2	24	0	0	0	0	0	11	2	13	38
	R2	0	0	0	0	0	0	2	2	0	0	0	0	0	1	0	1	3
	R3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
	A3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	5	
TOT		7	3	3	13	5	87	16	108	6	19	6	31	8	68	4	80	232
0815 - 0830		LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	2	3	0	5	0	4	1	5	1	3	0	4	0	2	0	2	16
	MC	0	0	0	0	0	1	0	1	0	1	0	1	0	1	0	1	3
	CAR	4	5	1	10	1	61	13	75	1	1	2	4	3	55	4	62	151
	LGV	1	1	0	2	1	18	1	20	0	0	0	0	0	8	0	8	30
	R2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
	R3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	R4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	1	0	1	0	0	0	0	0	4	0	4	5	
TOT		7	9	1	17	2	85	15	102	2	5	2	9	3	71	5	79	207

CLASSIFIED VEHICLE TURNING SURVEY
SITE 5 - LATCHMERE LANE / TUDOR DRIVE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):																TOT (ALL)
		LATCHMERE LANE (SB)				TUDOR DRIVE (WB)				LATCHMERE LANE (NB)				TUDOR DRIVE (EB)				
CLASS		LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	
0830 - 0845																		
CLASS	PC	0	2	0	2	0	1	0	1	0	5	0	5	0	1	0	1	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3	
	CAR	8	7	1	16	4	35	4	43	2	5	6	13	4	55	8	67	
	LGV	0	0	0	0	0	9	3	12	1	0	0	1	1	14	0	15	
	R2	0	0	0	0	0	4	0	4	0	0	0	0	1	2	0	3	
	R3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	R4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	A3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	A4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	A5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	A6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
BUS	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2		
TOT		8	9	1	18	4	52	7	63	3	10	6	19	7	76	8	91	
0845 - 0900																		
CLASS	PC	0	1	0	1	1	3	0	4	1	5	0	6	1	0	1	2	
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
	CAR	4	3	2	9	7	38	4	49	2	4	5	11	2	54	6	62	
	LGV	1	1	3	5	0	15	0	15	1	0	0	1	1	8	2	11	
	R2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	R3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
	R4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	A3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	A4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	A5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	A6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
BUS	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2		
TOT		5	5	5	15	8	58	4	70	4	9	5	18	4	66	9	79	
0900 - 0915																		
CLASS	PC	1	0	0	1	0	2	0	2	0	2	0	2	2	1	0	3	
	MC	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	
	CAR	2	6	4	12	3	60	5	68	12	4	8	24	3	41	4	48	
	LGV	1	1	0	2	1	10	0	11	0	1	1	2	1	10	0	11	
	R2	0	0	0	0	0	5	0	5	0	0	0	0	0	0	0	0	
	R3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	R4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	A3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	A4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	A5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	A6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
BUS	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2		
TOT		4	7	4	15	4	79	6	89	12	7	9	28	6	55	4	65	
0915 - 0930																		
CLASS	PC	2	0	1	3	0	4	0	4	0	4	0	4	0	0	0	0	
	MC	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2	
	CAR	6	1	1	8	2	43	7	52	3	1	4	8	2	27	3	32	
	LGV	1	0	0	1	0	17	2	19	0	0	0	0	0	9	0	9	
	R2	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3	
	R3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
	R4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	A3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	A4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	A5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	A6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
BUS	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2		
TOT		9	1	2	12	2	66	10	78	3	5	4	12	2	44	3	49	

CLASSIFIED VEHICLE TURNING SURVEY
SITE 5 - LATCHMERE LANE / TUDOR DRIVE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT 0730 - 0930		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):																
		LATCHMERE LANE (SB)				TUDOR DRIVE (WB)				LATCHMERE LANE (NB)				TUDOR DRIVE (EB)				TOT (ALL)
		LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	
CLASS	PC	7	9	3	19	2	23	5	30	6	42	0	48	5	9	1	15	112
	MC	1	0	0	1	0	3	2	5	0	2	0	2	1	7	0	8	16
	CAR	37	31	19	87	24	393	60	477	26	35	38	99	38	361	33	432	1095
	LGV	8	3	4	15	3	128	14	145	2	2	1	5	4	78	4	86	251
	R2	0	0	0	0	0	14	2	16	0	0	0	0	1	9	0	10	26
	R3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	4	4
	R4	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
	A3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BUS	0	1	0	1	0	17	0	17	0	0	0	0	0	18	0	18	36	
TOT	53	44	26	123	29	579	83	691	34	81	39	154	49	485	39	573	1541	

CLASSIFIED VEHICLE TURNING SURVEY
SITE 5 - LATCHMERE LANE / TUDOR DRIVE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):																
		LATCHMERE LANE (SB)				TUDOR DRIVE (WB)				LATCHMERE LANE (NB)				TUDOR DRIVE (EB)				TOT (ALL)
		LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	
1630 - 1645	CLASS																	
	PC	0	1	2	3	0	1	1	2	0	1	0	1	0	4	0	4	10
	MC	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
	CAR	7	6	4	17	4	66	11	81	4	1	4	9	3	42	1	46	153
	LGV	1	2	0	3	0	9	1	10	0	0	2	2	1	16	0	17	32
	R2	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
	R3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BUS	2	0	0	2	0	3	0	3	0	0	0	0	0	2	0	2	7	
TOT		10	9	6	25	4	81	14	99	4	2	6	12	4	64	1	69	205
1645 - 1700	CLASS																	
	PC	1	3	0	4	1	3	0	4	0	0	0	0	0	0	1	1	9
	MC	0	0	1	1	0	1	0	1	0	0	0	0	0	1	0	1	3
	CAR	5	6	4	15	7	43	6	56	3	7	5	15	2	50	3	55	141
	LGV	2	1	0	3	0	8	0	8	0	1	1	2	1	18	0	19	32
	R2	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
	R3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4	
TOT		8	10	5	23	8	59	6	73	3	8	6	17	3	72	4	79	192
1700- 1715	CLASS																	
	PC	1	2	2	5	0	1	0	1	0	0	0	0	2	0	0	2	8
	MC	1	0	0	1	0	1	1	2	0	0	0	0	0	3	0	3	6
	CAR	8	1	1	10	2	46	7	55	0	2	4	6	4	44	0	48	119
	LGV	3	0	1	4	1	9	1	11	0	1	1	2	0	12	0	12	29
	R2	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5	5
	R3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3	4	
TOT		13	3	4	20	3	58	9	70	0	3	5	8	6	67	0	73	171
1715- 1730	CLASS																	
	PC	1	2	1	4	0	2	1	3	0	0	0	0	0	2	0	2	9
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
	CAR	5	3	4	12	3	45	6	54	1	1	4	6	2	37	2	41	113
	LGV	1	0	0	1	0	15	2	17	1	0	0	1	0	12	0	12	31
	R2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BUS	1	0	0	1	0	1	0	1	0	0	0	0	1	1	0	2	4	
TOT		8	5	5	18	3	63	9	75	2	1	4	7	3	53	2	58	158

CLASSIFIED VEHICLE TURNING SURVEY
SITE 5 - LATCHMERE LANE / TUDOR DRIVE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):																
		LATCHMERE LANE (SB)				TUDOR DRIVE (WB)				LATCHMERE LANE (NB)				TUDOR DRIVE (EB)				TOT (ALL)
1730-1745		LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	
CLASS	PC	0	0	0	0	0	3	0	3	2	2	0	4	0	1	0	1	8
	MC	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	CAR	7	7	6	20	8	41	7	56	8	3	3	14	2	43	5	50	140
	LGV	1	1	0	2	1	8	2	11	1	0	0	1	0	10	0	10	24
	R2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	5	
TOT		8	9	6	23	9	54	9	72	11	5	3	19	2	57	5	64	178
1745-1800		LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	2	8	0	10	1	0	2	3	0	0	0	0	0	0	0	0	13
	MC	1	0	0	1	1	2	0	3	0	0	0	0	0	0	0	0	4
	CAR	11	6	3	20	4	44	7	55	5	3	4	12	0	52	1	53	140
	LGV	3	0	0	3	0	7	0	7	1	0	0	1	0	17	0	17	28
	R2	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
	R3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	5	
TOT		17	14	3	34	6	56	9	71	6	3	4	13	0	74	1	75	193
1800-1815		LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	1	3	0	4	0	0	0	0	0	2	0	2	0	3	0	3	9
	MC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAR	8	7	3	18	1	52	8	61	7	5	6	18	2	53	6	61	158
	LGV	0	1	0	1	0	7	1	8	1	1	2	4	0	13	0	13	26
	R2	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
	R3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3	
TOT		9	11	3	23	1	62	9	72	8	8	8	24	2	70	6	78	197
1815-1830		LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	TOT (ALL)
CLASS	PC	3	1	1	5	0	1	0	1	0	2	0	2	0	0	0	0	8
	MC	0	1	1	2	0	3	0	3	1	0	0	1	0	0	0	0	6
	CAR	9	4	2	15	2	56	6	64	2	2	3	7	5	42	9	56	142
	LGV	2	0	0	2	2	6	1	9	0	0	1	1	0	7	0	7	19
	R2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	R3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BUS	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4	
TOT		14	6	4	24	4	68	7	79	3	4	4	11	5	51	9	65	179

CLASSIFIED VEHICLE TURNING SURVEY
SITE 5 - LATCHMERE LANE / TUDOR DRIVE, HAM COMMON, RICHMOND
THURSDAY 09/05/2013

15 MIN COUNT 1630 - 1830		COUNT OF VEHICLES ENTERING JUNCTION FROM (AND TURNING):																TOT (ALL)
		LATCHMERE LANE (SB)				TUDOR DRIVE (WB)				LATCHMERE LANE (NB)				TUDOR DRIVE (EB)				
		LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	LEFT	AHEAD	RIGHT	TOT	
CLASS	PC	9	20	6	35	2	11	4	17	2	7	0	9	2	10	1	13	74
	MC	2	2	2	6	1	7	2	10	1	0	0	1	0	5	0	5	22
	CAR	60	40	27	127	31	393	58	482	30	24	33	87	20	363	27	410	1106
	LGV	13	5	1	19	4	69	8	81	4	3	7	14	2	105	0	107	221
	R2	0	0	0	0	0	6	0	6	0	0	0	0	0	8	0	8	14
	R3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	R4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	A6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BUS	3	0	0	3	0	15	0	15	0	0	0	0	1	17	0	18	36	
TOT	87	67	36	190	38	501	72	611	37	34	40	111	25	508	28	561	1473	

VEHICLE VOLUME AND CLASSIFICATION SURVEY – LATCHMERE CLOSE / BAINBRIDGE CLOSE

DATASETS:

Site: [Ham] Bainbridge Close, A-B Outbound

Direction: 7 - North bound A>B, South bound B>A. Lane: 0

Survey Duration: 00:00 Wednesday 05 June 2013 => 17:28 Monday 24 June 2013

File: Ham26Jun2013.EC0 (Plus)

Identifier: CA74Z4VM MC56-L5 [MC55] (c)Microcom 19Oct04

Algorithm: Advanced.

PROFILE:

Filter time: 00:00 Wednesday 05 June 2013 => 00:00 Wednesday 12 June 2013

Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13

Speed range: 0 - 80 mph.

Direction: South (bound) / North (bound).

Headway: All.

Scheme: ARX Cycles.

Name: Factory default profile.

Method: Vehicle classification.

Units: Non-Metric (ft, mi, f/s, mph, lb, ton).

DEFINITIONS / ABBREVIATIONS*

Time - Time period commencing. (1-hour summaries given).

Total - Total number of vehicles counted in time period.

RunTot - Running or cumulative total of vehicles over survey period.

Vbin

30 (eg) - Number of vehicles between 30 and 35 mph (30.0 – 34.9).

35

Mean - Mean speed.

Vmin - Minimum speed.

Vmax - Maximum speed.

n> PSL 30 - Number of vehicles exceeding Posted Speed Limit (30 mph).

%> PSL 30 - Percentage of vehicles exceeding Posted Speed Limit (30 mph).

Vpp 85 - 85th percentile speed.

*Not all definitions may be used in a single report.

VEHICLE CLASSES

- | | | |
|-----------|----------------------|---|
| 1 | Bicycle | |
| 2 | Motor Cycle | |
| 3 | Car / Van | (cars and vans - without trailer). |
| 4 | Car / Van (T) | (cars and vans towing trailer). |
| 5 | R2 / Bus | (HGV / bus 2-axle rigid). |
| 6 | R3 / Bus | (HGV / bus 3-axle rigid). |
| 7 | R4 | (HGV 4-axle rigid). |
| 8 | A3 | (HGV 3-axle articulated). |
| 9 | A4 | (HGV 4-axle articulated). |
| 10 | A5 | (HGV 5-axle articulated). |
| 11 | A6 | (HGV 6-axle articulated). |
| 12 | A6 [2] | (HGV 6-axle articulated comprising two trailers). |
| 13 | A7 [2] | (HGV 7 + axle articulated comprising two trailers). |

Benchmark Data Collection

Wed 05 Time	June Total	2013 RunTot	Southbound		Car / Van	Car / Van (T)	R2 / Bus	R3 / Bus	R4	A3	A4	A5	A6	A6 [2]	A7 [2]	Vmin	Mean	Vmax	>PSL 30	>PSL% 30	Vpp 85
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0200	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	6.6	9.9	13.2	0	0	-
0300	1	3	0	0	1	0	0	0	0	0	0	0	0	0	0	14.1	14.1	14.1	0	0	-
0400	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0500	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0600	1	4	0	0	1	0	0	0	0	0	0	0	0	0	0	17.7	17.7	17.7	0	0	-
0700	6	10	0	0	6	0	0	0	0	0	0	0	0	0	0	9	11.3	13.2	0	0	-
0800	10	20	1	1	7	0	1	0	0	0	0	0	0	0	0	8.2	11.5	14.8	0	0	-
0900	8	28	0	0	5	0	2	1	0	0	0	0	0	0	0	12.5	14.3	19.5	0	0	-
1000	9	37	0	0	8	0	0	1	0	0	0	0	0	0	0	9.8	13.3	16.9	0	0	-
1100	7	44	0	1	6	0	0	0	0	0	0	0	0	0	0	10.4	14.1	16.7	0	0	-
1200	9	53	1	0	8	0	0	0	0	0	0	0	0	0	0	6.9	11.1	18.3	0	0	-
1300	7	60	0	0	6	0	1	0	0	0	0	0	0	0	0	9.8	13.5	19.5	0	0	-
1400	9	69	1	0	7	0	0	1	0	0	0	0	0	0	0	9.6	15.4	20.1	0	0	-
1500	9	78	1	0	5	0	2	1	0	0	0	0	0	0	0	11.3	15.2	19.5	0	0	-
1600	13	91	1	1	10	0	0	1	0	0	0	0	0	0	0	8.3	13	16.6	0	0	16.1
1700	20	111	2	3	14	0	1	0	0	0	0	0	0	0	0	10.4	15.2	20.9	0	0	17.4
1800	14	125	3	0	11	0	0	0	0	0	0	0	0	0	0	8.7	12.2	15.5	0	0	13
1900	16	141	2	1	13	0	0	0	0	0	0	0	0	0	0	8.8	13.6	20.1	0	0	16.6
2000	10	151	3	1	6	0	0	0	0	0	0	0	0	0	0	8.4	14	17.9	0	0	-
2100	9	160	1	0	7	0	1	0	0	0	0	0	0	0	0	6.3	12.1	14.9	0	0	-
2200	0	160	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
2300	1	161	0	0	1	0	0	0	0	0	0	0	0	0	0	12.8	12.8	12.8	0	0	-
07-19	121	161	10	6	93	0	7	5	0	0	0	0	0	0	0	6.9	13.5	20.9	0	0	16.6
06-22	157	161	16	8	120	0	8	5	0	0	0	0	0	0	0	6.3	13.5	20.9	0	0	16.3
06-00	158	161	16	8	121	0	8	5	0	0	0	0	0	0	0	6.3	13.5	20.9	0	0	16.3
00-00	161	161	16	8	124	0	8	5	0	0	0	0	0	0	0	6.3	13.4	20.9	0	0	16.3

Benchmark Data Collection

Thu 06 Time	June Total	2013 RunTot	Southbound		Car / Van	Car / Van (T)	R2 / Bus	R3 / Bus	R4	A3	A4	A5	A6	A6 [2]	A7 [2]	Vmin	Mean	Vmax	>PSL 30	>PSL% 30	Vpp 85
0000	0	161	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0100	1	162	0	0	1	0	0	0	0	0	0	0	0	0	0	13.3	13.3	13.3	0	0	-
0200	0	162	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0300	1	163	0	0	1	0	0	0	0	0	0	0	0	0	0	21	21	21	0	0	-
0400	0	163	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0500	0	163	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0600	0	163	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0700	5	168	0	0	5	0	0	0	0	0	0	0	0	0	0	9.1	12.7	16.8	0	0	-
0800	9	177	1	1	7	0	0	0	0	0	0	0	0	0	0	7.5	13.1	17.8	0	0	-
0900	12	189	0	0	11	0	0	0	1	0	0	0	0	0	0	9.5	14.3	20.2	0	0	16.1
1000	4	193	0	0	4	0	0	0	0	0	0	0	0	0	0	12.6	13.7	15.8	0	0	-
1100	3	196	0	0	3	0	0	0	0	0	0	0	0	0	0	11.6	12.1	12.3	0	0	-
1200	4	200	0	0	2	0	2	0	0	0	0	0	0	0	0	10.9	12.9	15.7	0	0	-
1300	12	212	1	0	11	0	0	0	0	0	0	0	0	0	0	4.6	13.7	18.4	0	0	17
1400	4	216	0	0	4	0	0	0	0	0	0	0	0	0	0	10.5	15.2	18.6	0	0	-
1500	16	232	0	0	14	0	1	1	0	0	0	0	0	0	0	6.4	13.3	15.8	0	0	15.2
1600	14	246	1	1	9	0	1	2	0	0	0	0	0	0	0	9.2	12.9	14.7	0	0	14.5
1700	13	259	1	1	11	0	0	0	0	0	0	0	0	0	0	9.5	14.9	21.3	0	0	16.3
1800	19	278	5	1	13	0	0	0	0	0	0	0	0	0	0	8.5	12.7	17.9	0	0	14.5
1900	10	288	3	0	5	0	1	1	0	0	0	0	0	0	0	6.5	13.3	17.7	0	0	-
2000	9	297	3	3	3	0	0	0	0	0	0	0	0	0	0	7.9	13.7	19.5	0	0	-
2100	0	297	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
2200	6	303	0	1	5	0	0	0	0	0	0	0	0	0	0	9.2	13.2	17.4	0	0	-
2300	5	308	0	0	4	0	0	1	0	0	0	0	0	0	0	14.1	15.5	16.9	0	0	-
07-19	115	308	9	4	94	0	4	3	1	0	0	0	0	0	0	4.6	13.5	21.3	0	0	16.1
06-22	134	308	15	7	102	0	5	4	1	0	0	0	0	0	0	4.6	13.5	21.3	0	0	16.3
06-00	145	308	15	8	111	0	5	5	1	0	0	0	0	0	0	4.6	13.5	21.3	0	0	16.3
00-00	147	308	15	8	113	0	5	5	1	0	0	0	0	0	0	4.6	13.6	21.3	0	0	16.3

Benchmark Data Collection

Fri 07 Time	June Total	2013 RunTot	Southbound		Car / Van	Car / Van (T)	R2 / Bus	R3 / Bus	R4	A3	A4	A5	A6	A6 [2]	A7 [2]	Vmin	Mean	Vmax	>PSL 30	>PSL% 30	Vpp 85
			Bicycle	Motor Cycle																	
0000	0	308	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0100	1	309	0	0	1	0	0	0	0	0	0	0	0	0	0	12.2	12.2	12.2	0	0	-
0200	0	309	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0300	1	310	0	0	1	0	0	0	0	0	0	0	0	0	0	17	17	17	0	0	-
0400	1	311	0	0	1	0	0	0	0	0	0	0	0	0	0	19.5	19.5	19.5	0	0	-
0500	0	311	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0600	1	312	0	0	1	0	0	0	0	0	0	0	0	0	0	17.5	17.5	17.5	0	0	-
0700	2	314	0	0	2	0	0	0	0	0	0	0	0	0	0	17.6	17.6	17.7	0	0	-
0800	15	329	0	0	15	0	0	0	0	0	0	0	0	0	0	5.9	11.7	15.8	0	0	14.8
0900	9	338	0	1	7	0	1	0	0	0	0	0	0	0	0	9	13.9	16.6	0	0	-
1000	8	346	0	0	6	0	1	1	0	0	0	0	0	0	0	6.7	11.2	15	0	0	-
1100	11	357	1	0	9	0	0	1	0	0	0	0	0	0	0	7	12.5	17.4	0	0	14.1
1200	1	358	0	0	1	0	0	0	0	0	0	0	0	0	0	17.7	17.7	17.7	0	0	-
1300	11	369	2	0	9	0	0	0	0	0	0	0	0	0	0	8.1	12.5	15.1	0	0	14.5
1400	9	378	2	0	6	0	1	0	0	0	0	0	0	0	0	8.8	11.8	19	0	0	-
1500	8	386	0	0	5	0	1	2	0	0	0	0	0	0	0	13.4	16.2	21.1	0	0	-
1600	18	404	2	2	14	0	0	0	0	0	0	0	0	0	0	8.3	14.4	22.3	0	0	16.1
1700	16	420	1	1	14	0	0	0	0	0	0	0	0	0	0	8.8	15	18	0	0	17.7
1800	19	439	3	0	15	0	0	1	0	0	0	0	0	0	0	8.7	14.2	19.8	0	0	16.8
1900	9	448	0	0	8	0	1	0	0	0	0	0	0	0	0	8.5	12.6	17.8	0	0	-
2000	9	457	3	0	6	0	0	0	0	0	0	0	0	0	0	8.2	12.8	19	0	0	-
2100	5	462	0	0	5	0	0	0	0	0	0	0	0	0	0	13.7	16.1	18.7	0	0	-
2200	5	467	0	0	5	0	0	0	0	0	0	0	0	0	0	9.8	13.6	17	0	0	-
2300	3	470	0	0	3	0	0	0	0	0	0	0	0	0	0	8.5	12.5	19.5	0	0	-
07-19	127	470	11	4	103	0	4	5	0	0	0	0	0	0	0	5.9	13.6	22.3	0	0	16.6
06-22	151	470	14	4	123	0	5	5	0	0	0	0	0	0	0	5.9	13.6	22.3	0	0	16.6
06-00	159	470	14	4	131	0	5	5	0	0	0	0	0	0	0	5.9	13.6	22.3	0	0	16.6
00-00	162	470	14	4	134	0	5	5	0	0	0	0	0	0	0	5.9	13.6	22.3	0	0	16.6

Benchmark Data Collection

Sat 08 Time	June Total	2013 RunTot	Southbound		Car / Van	Car / Van (T)	R2 / Bus	R3 / Bus	R4	A3	A4	A5	A6	A6 [2]	A7 [2]	Vmin	Mean	Vmax	>PSL 30	>PSL% 30	Vpp 85
			Bicycle	Motor Cycle																	
0000	1	471	0	0	1	0	0	0	0	0	0	0	0	0	0	10.7	10.7	10.7	0	0	-
0100	2	473	0	0	2	0	0	0	0	0	0	0	0	0	0	14.8	15.7	16.7	0	0	-
0200	0	473	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0300	0	473	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0400	2	475	0	0	2	0	0	0	0	0	0	0	0	0	0	14.9	15.3	15.7	0	0	-
0500	0	475	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0600	1	476	0	0	1	0	0	0	0	0	0	0	0	0	0	20.7	20.7	20.7	0	0	-
0700	0	476	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0800	6	482	0	0	5	0	0	0	1	0	0	0	0	0	0	11.9	14	16.7	0	0	-
0900	6	488	0	0	5	0	0	1	0	0	0	0	0	0	0	13.2	16.4	18.9	0	0	-
1000	9	497	2	0	7	0	0	0	0	0	0	0	0	0	0	7.5	14.2	18.6	0	0	-
1100	13	510	2	0	10	0	0	1	0	0	0	0	0	0	0	8.8	13.1	17.5	0	0	15.9
1200	10	520	0	1	8	0	0	1	0	0	0	0	0	0	0	9.1	14.6	20.2	0	0	-
1300	10	530	1	0	9	0	0	0	0	0	0	0	0	0	0	7.8	14.2	18.2	0	0	-
1400	9	539	0	1	8	0	0	0	0	0	0	0	0	0	0	7.2	12.4	20.9	0	0	-
1500	9	548	0	1	8	0	0	0	0	0	0	0	0	0	0	10.1	13.5	17.9	0	0	-
1600	15	563	2	0	13	0	0	0	0	0	0	0	0	0	0	9.4	14.8	21	0	0	17.9
1700	17	580	2	1	13	0	0	1	0	0	0	0	0	0	0	7.9	13.4	18.7	0	0	16.8
1800	7	587	0	2	5	0	0	0	0	0	0	0	0	0	0	8	12.9	18.1	0	0	-
1900	8	595	2	1	5	0	0	0	0	0	0	0	0	0	0	7.9	13	18.7	0	0	-
2000	4	599	1	1	2	0	0	0	0	0	0	0	0	0	0	10.8	13.4	19.1	0	0	-
2100	4	603	0	0	4	0	0	0	0	0	0	0	0	0	0	10.7	13.6	18.1	0	0	-
2200	3	606	0	1	2	0	0	0	0	0	0	0	0	0	0	11.2	13.2	14.9	0	0	-
2300	4	610	0	0	4	0	0	0	0	0	0	0	0	0	0	8.9	12.5	15.2	0	0	-
07-19	111	610	9	6	91	0	0	4	1	0	0	0	0	0	0	7.2	13.9	21	0	0	17.4
06-22	128	610	12	8	103	0	0	4	1	0	0	0	0	0	0	7.2	13.9	21	0	0	17.4
06-00	135	610	12	9	109	0	0	4	1	0	0	0	0	0	0	7.2	13.8	21	0	0	17.4
00-00	140	610	12	9	114	0	0	4	1	0	0	0	0	0	0	7.2	13.8	21	0	0	17.4

Benchmark Data Collection

Sun 09 Time	June Total	2013 RunTot	Southbound		Car / Van	Car / Van (T)	R2 / Bus	R3 / Bus	R4	A3	A4	A5	A6	A6 [2]	A7 [2]	Vmin	Mean	Vmax	>PSL 30	>PSL% 30	Vpp 85
			Bicycle	Motor Cycle																	
0000	0	610	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0100	4	614	0	0	4	0	0	0	0	0	0	0	0	0	0	13.5	14.4	15.6	0	0	-
0200	0	614	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0300	1	615	0	0	1	0	0	0	0	0	0	0	0	0	0	18.9	18.9	18.9	0	0	-
0400	0	615	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0500	0	615	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0600	1	616	0	0	1	0	0	0	0	0	0	0	0	0	0	14	14	14	0	0	-
0700	0	616	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0800	0	616	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0900	3	619	0	0	3	0	0	0	0	0	0	0	0	0	0	9.9	12.6	15.3	0	0	-
1000	3	622	0	0	3	0	0	0	0	0	0	0	0	0	0	13.3	14.9	17	0	0	-
1100	7	629	0	0	6	0	0	1	0	0	0	0	0	0	0	9	13.7	16.8	0	0	-
1200	7	636	0	0	7	0	0	0	0	0	0	0	0	0	0	9.1	13.7	17.1	0	0	-
1300	9	645	0	0	9	0	0	0	0	0	0	0	0	0	0	8.9	13.6	20.7	0	0	-
1400	5	650	0	0	5	0	0	0	0	0	0	0	0	0	0	11.3	16	19	0	0	-
1500	9	659	2	0	7	0	0	0	0	0	0	0	0	0	0	6.4	12.5	19.5	0	0	-
1600	13	672	2	0	11	0	0	0	0	0	0	0	0	0	0	9.3	12.3	17.8	0	0	14.8
1700	9	681	1	0	8	0	0	0	0	0	0	0	0	0	0	7.2	13.8	16.5	0	0	-
1800	7	688	0	0	7	0	0	0	0	0	0	0	0	0	0	8.8	14.2	18.9	0	0	-
1900	9	697	2	1	6	0	0	0	0	0	0	0	0	0	0	7.3	13.8	18.9	0	0	-
2000	4	701	0	0	3	0	0	1	0	0	0	0	0	0	0	7.3	11.2	15.9	0	0	-
2100	4	705	0	1	3	0	0	0	0	0	0	0	0	0	0	8.4	11.9	13.6	0	0	-
2200	0	705	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
2300	2	707	0	0	2	0	0	0	0	0	0	0	0	0	0	9.9	10	10	0	0	-
07-19	72	707	5	0	66	0	0	1	0	0	0	0	0	0	0	6.4	13.5	20.7	0	0	16.3
06-22	90	707	7	2	79	0	0	2	0	0	0	0	0	0	0	6.4	13.4	20.7	0	0	16.1
06-00	92	707	7	2	81	0	0	2	0	0	0	0	0	0	0	6.4	13.3	20.7	0	0	15.9
00-00	97	707	7	2	86	0	0	2	0	0	0	0	0	0	0	6.4	13.4	20.7	0	0	15.9

Benchmark Data Collection

Mon 10 Time	June Total	2013 RunTot	Southbound		Car / Van	Car / Van (T)	R2 / Bus	R3 / Bus	R4	A3	A4	A5	A6	A6 [2]	A7 [2]	Vmin	Mean	Vmax	>PSL 30	>PSL% 30	Vpp 85
			Bicycle	Motor Cycle																	
0000	1	708	0	0	1	0	0	0	0	0	0	0	0	0	0	9.9	9.9	9.9	0	0	-
0100	1	709	0	0	1	0	0	0	0	0	0	0	0	0	0	11.8	11.8	11.8	0	0	-
0200	0	709	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0300	1	710	0	0	1	0	0	0	0	0	0	0	0	0	0	17.1	17.1	17.1	0	0	-
0400	0	710	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0500	0	710	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0600	4	714	0	0	4	0	0	0	0	0	0	0	0	0	0	10.1	12.2	14.5	0	0	-
0700	4	718	0	0	4	0	0	0	0	0	0	0	0	0	0	9	12.8	16.5	0	0	-
0800	10	728	0	1	8	0	0	1	0	0	0	0	0	0	0	8.2	13.8	17.9	0	0	-
0900	11	739	1	0	9	0	0	0	1	0	0	0	0	0	0	9.2	12.8	17.7	0	0	16.3
1000	2	741	0	0	2	0	0	0	0	0	0	0	0	0	0	12.7	14.6	16.5	0	0	-
1100	9	750	1	0	6	0	1	1	0	0	0	0	0	0	0	9.2	12.8	15.8	0	0	-
1200	9	759	1	0	8	0	0	0	0	0	0	0	0	0	0	8.2	13.1	15.7	0	0	-
1300	13	772	0	1	8	0	2	2	0	0	0	0	0	0	0	4	14.3	19.2	0	0	17.7
1400	8	780	1	0	7	0	0	0	0	0	0	0	0	0	0	5.7	12	15	0	0	-
1500	12	792	1	1	10	0	0	0	0	0	0	0	0	0	0	8.7	15.5	19.3	0	0	17.4
1600	8	800	0	1	7	0	0	0	0	0	0	0	0	0	0	12.7	14.7	16.9	0	0	-
1700	20	820	1	3	13	0	2	1	0	0	0	0	0	0	0	9.4	14.4	22	0	0	17.9
1800	20	840	3	2	15	0	0	0	0	0	0	0	0	0	0	9.4	13.7	18.7	0	0	17
1900	6	846	2	0	4	0	0	0	0	0	0	0	0	0	0	8.2	13.2	20.8	0	0	-
2000	6	852	0	0	6	0	0	0	0	0	0	0	0	0	0	12.1	14.1	15.7	0	0	-
2100	8	860	0	1	7	0	0	0	0	0	0	0	0	0	0	10.7	15	19.1	0	0	-
2200	8	868	0	1	7	0	0	0	0	0	0	0	0	0	0	12.1	14.4	16.5	0	0	-
2300	3	871	0	0	3	0	0	0	0	0	0	0	0	0	0	12.3	14.6	17.8	0	0	-
07-19	126	871	9	9	97	0	5	5	1	0	0	0	0	0	0	4	13.8	22	0	0	17
06-22	150	871	11	10	118	0	5	5	1	0	0	0	0	0	0	4	13.8	22	0	0	17
06-00	161	871	11	11	128	0	5	5	1	0	0	0	0	0	0	4	13.9	22	0	0	17
00-00	164	871	11	11	131	0	5	5	1	0	0	0	0	0	0	4	13.9	22	0	0	17

Benchmark Data Collection

Tue 11 Time	June Total	2013 RunTot	Southbound		Car / Van	Car / Van (T)	R2 / Bus	R3 / Bus	R4	A3	A4	A5	A6	A6 [2]	A7 [2]	Vmin	Mean	Vmax	>PSL 30	>PSL% 30	Vpp 85
0000	1	872	0	0	0	0	0	1	0	0	0	0	0	0	0	18.1	18.1	18.1	0	0	-
0100	0	872	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0200	0	872	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0300	1	873	0	0	1	0	0	0	0	0	0	0	0	0	0	17.3	17.3	17.3	0	0	-
0400	0	873	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0500	0	873	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0600	3	876	0	0	3	0	0	0	0	0	0	0	0	0	0	17.2	17.2	17.2	0	0	-
0700	8	884	0	0	7	0	0	1	0	0	0	0	0	0	0	9.2	13.7	17.6	0	0	-
0800	9	893	0	0	7	0	1	1	0	0	0	0	0	0	0	8.6	14.3	20	0	0	-
0900	11	904	0	0	8	0	2	1	0	0	0	0	0	0	0	7.5	13.2	17.5	0	0	16.3
1000	7	911	0	0	6	0	0	1	0	0	0	0	0	0	0	9.6	13.9	16.1	0	0	-
1100	12	923	0	0	10	0	1	1	0	0	0	0	0	0	0	8.2	12	15.2	0	0	14.5
1200	3	926	0	0	3	0	0	0	0	0	0	0	0	0	0	14	15.4	17.5	0	0	-
1300	10	936	0	1	9	0	0	0	0	0	0	0	0	0	0	12.8	16.3	20.4	0	0	-
1400	6	942	1	0	4	0	0	1	0	0	0	0	0	0	0	10.5	15.2	19	0	0	-
1500	7	949	0	0	6	0	1	0	0	0	0	0	0	0	0	9.1	13.5	18.9	0	0	-
1600	7	956	1	1	5	0	0	0	0	0	0	0	0	0	0	9.2	15.2	18.6	0	0	-
1700	23	979	1	2	19	0	0	1	0	0	0	0	0	0	0	8.9	15	20.2	0	0	17.4
1800	11	990	2	0	8	0	0	1	0	0	0	0	0	0	0	7.6	13.7	16.8	0	0	16.6
1900	14	1004	2	0	12	0	0	0	0	0	0	0	0	0	0	10.7	14.9	19.3	0	0	17
2000	11	1015	2	1	8	0	0	0	0	0	0	0	0	0	0	7.4	14.5	19.9	0	0	16.3
2100	5	1020	0	0	5	0	0	0	0	0	0	0	0	0	0	8.2	14.6	20.7	0	0	-
2200	4	1024	0	0	3	0	0	1	0	0	0	0	0	0	0	12.3	15.2	16.9	0	0	-
07-19	114	1024	5	4	92	0	5	7	1	0	0	0	0	0	0	7.5	14.2	20.4	0	0	17.4
06-22	147	1024	9	5	120	0	5	7	1	0	0	0	0	0	0	7.4	14.4	20.7	0	0	17.4
06-00	151	1024	9	5	123	0	5	8	1	0	0	0	0	0	0	7.4	14.4	20.7	0	0	17
00-00	153	1024	9	5	124	0	5	9	1	0	0	0	0	0	0	7.4	14.5	20.7	0	0	17.4

Total	Total	RunTot	Southbound		Car / Van	Car / Van (T)	R2 / Bus	R3 / Bus	R4	A3	A4	A5	A6	A6 [2]	A7 [2]	Vmin	Mean	Vmax	>PSL 30	>PSL% 30	Vpp 85
--	1024	1024	84	47	826	0	28	35	4	0	0	0	0	0	0	4	13.8	22.3	0	0	16.8

	AM 0800-0900		PM 1700-1800		Daily	
Existing	Arr	Dep	Arr	Dep	Arr	Dep
	11	21	18	8	157	163

Benchmark Data Collection

Wed 05 Time	June Total	2013 RunTot	Northbound		Car / Van	Car / Van (T)	R2 / Bus	R3 / Bus	R4	A3	A4	A5	A6	A6 [2]	A7 [2]	Vmin	Mean	Vmax	>PSL 30	>PSL% 30	Vpp 85
0000	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	15.2	15.8	16.5	0	0	-
0100	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0200	1	3	0	0	1	0	0	0	0	0	0	0	0	0	0	13.9	13.9	13.9	0	0	-
0300	1	4	0	0	1	0	0	0	0	0	0	0	0	0	0	24.1	24.1	24.1	0	0	-
0400	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0500	2	6	0	0	2	0	0	0	0	0	0	0	0	0	0	17.9	18.1	18.2	0	0	-
0600	6	12	0	0	6	0	0	0	0	0	0	0	0	0	0	13.5	15.8	20.2	0	0	-
0700	20	32	2	3	14	0	1	0	0	0	0	0	0	0	0	6.9	15	20.3	0	0	18.3
0800	19	51	2	3	13	0	1	0	0	0	0	0	0	0	0	10.6	14.5	21.7	0	0	16.6
0900	10	61	2	0	8	0	0	0	0	0	0	0	0	0	0	8.5	12.5	18.1	0	0	-
1000	8	69	1	0	7	0	0	0	0	0	0	0	0	0	0	5.7	12.9	16.9	0	0	-
1100	10	79	0	1	8	0	1	0	0	0	0	0	0	0	0	11.7	14.1	15.6	0	0	-
1200	19	98	4	1	14	0	0	0	0	0	0	0	0	0	0	5.9	12.6	18.1	0	0	15.9
1300	8	106	0	0	8	0	0	0	0	0	0	0	0	0	0	8.1	14.5	17.4	0	0	-
1400	5	111	1	0	3	0	1	0	0	0	0	0	0	0	0	8.2	13.5	17.1	0	0	-
1500	10	121	0	1	8	0	1	0	0	0	0	0	0	0	0	9.7	15	20.4	0	0	-
1600	8	129	1	0	7	0	0	0	0	0	0	0	0	0	0	11.1	14.5	18.6	0	0	-
1700	9	138	2	0	6	0	1	0	0	0	0	0	0	0	0	10	14.6	19.8	0	0	-
1800	14	152	2	0	11	0	1	0	0	0	0	0	0	0	0	8.7	13.2	17.2	0	0	15.7
1900	5	157	0	0	5	0	0	0	0	0	0	0	0	0	0	14.6	15.2	15.8	0	0	-
2000	8	165	2	0	6	0	0	0	0	0	0	0	0	0	0	8.7	12.5	15.6	0	0	-
2100	4	169	0	0	4	0	0	0	0	0	0	0	0	0	0	9.4	11.3	14.3	0	0	-
2200	0	169	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
2300	0	169	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
07-19	140	169	17	9	107	0	7	0	0	0	0	0	0	0	0	5.7	13.9	21.7	0	0	16.8
06-22	163	169	19	9	128	0	7	0	0	0	0	0	0	0	0	5.7	13.9	21.7	0	0	16.8
06-00	163	169	19	9	128	0	7	0	0	0	0	0	0	0	0	5.7	13.9	21.7	0	0	16.8
00-00	169	169	19	9	134	0	7	0	0	0	0	0	0	0	0	5.7	14	24.1	0	0	16.8

Benchmark Data Collection

Thu 06 Time	June Total	2013 RunTot	Northbound		Car / Van	Car / Van (T)	R2 / Bus	R3 / Bus	R4	A3	A4	A5	A6	A6 [2]	A7 [2]	Vmin	Mean	Vmax	>PSL 30	>PSL% 30	Vpp 85
0000	0	169	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0100	1	170	0	0	1	0	0	0	0	0	0	0	0	0	0	13.1	13.1	13.1	0	0	-
0200	0	170	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0300	1	171	0	0	1	0	0	0	0	0	0	0	0	0	0	24.1	24.1	24.1	0	0	-
0400	0	171	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0500	0	171	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0600	6	177	0	0	6	0	0	0	0	0	0	0	0	0	0	12.9	15.1	16.5	0	0	-
0700	21	198	7	2	12	0	0	0	0	0	0	0	0	0	0	6.9	13.5	17.6	0	0	17.2
0800	22	220	3	2	16	0	0	0	1	0	0	0	0	0	0	9	14.5	18.9	0	0	17
0900	16	236	4	0	11	0	0	1	0	0	0	0	0	0	0	7	12.6	19.4	0	0	16.8
1000	5	241	1	0	3	0	1	0	0	0	0	0	0	0	0	11.6	15.1	19.8	0	0	-
1100	8	249	1	0	7	0	0	0	0	0	0	0	0	0	0	9.3	11.7	17.5	0	0	-
1200	5	254	0	0	4	0	1	0	0	0	0	0	0	0	0	9.4	12.6	17.5	0	0	-
1300	13	267	0	1	11	0	1	0	0	0	0	0	0	0	0	9	13.6	20.2	0	0	17
1400	5	272	0	0	5	0	0	0	0	0	0	0	0	0	0	10.6	13.1	17.1	0	0	-
1500	9	281	0	0	8	0	1	0	0	0	0	0	0	0	0	8.3	13.4	16.1	0	0	-
1600	14	295	3	0	10	0	1	0	0	0	0	0	0	0	0	9.2	13.5	20.7	0	0	16.3
1700	5	300	1	0	4	0	0	0	0	0	0	0	0	0	0	10.7	13.9	20.5	0	0	-
1800	12	312	0	2	10	0	0	0	0	0	0	0	0	0	0	10.4	13.8	18.4	0	0	14.5
1900	7	319	1	0	5	0	1	0	0	0	0	0	0	0	0	10	14.8	18.9	0	0	-
2000	3	322	1	1	1	0	0	0	0	0	0	0	0	0	0	10.4	15.1	20.1	0	0	-
2100	0	322	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
2200	1	323	0	0	1	0	0	0	0	0	0	0	0	0	0	14	14	14	0	0	-
2300	1	324	0	0	1	0	0	0	0	0	0	0	0	0	0	16.6	16.6	16.6	0	0	-
07-19	135	324	20	7	101	0	5	1	1	0	0	0	0	0	0	6.9	13.5	20.7	0	0	17
06-22	151	324	22	8	113	0	6	1	1	0	0	0	0	0	0	6.9	13.7	20.7	0	0	17
06-00	153	324	22	8	115	0	6	1	1	0	0	0	0	0	0	6.9	13.7	20.7	0	0	17
00-00	155	324	22	8	117	0	6	1	1	0	0	0	0	0	0	6.9	13.7	24.1	0	0	17

Benchmark Data Collection

Fri 07 Time	June Total	2013 RunTot	Northbound		Car / Van	Car / Van (T)	R2 / Bus	R3 / Bus	R4	A3	A4	A5	A6	A6 [2]	A7 [2]	Vmin	Mean	Vmax	>PSL 30	>PSL% 30	Vpp 85
			Bicycle	Motor Cycle																	
0000	0	324	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0100	1	325	0	0	1	0	0	0	0	0	0	0	0	0	0	12.7	12.7	12.7	0	0	-
0200	0	325	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0300	0	325	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0400	1	326	0	0	1	0	0	0	0	0	0	0	0	0	0	23.8	23.8	23.8	0	0	-
0500	1	327	0	0	1	0	0	0	0	0	0	0	0	0	0	8.7	8.7	8.7	0	0	-
0600	4	331	0	0	3	0	0	1	0	0	0	0	0	0	0	14.8	16.5	18.4	0	0	-
0700	15	346	2	3	10	0	0	0	0	0	0	0	0	0	0	7.6	13.7	17	0	0	15.4
0800	24	370	8	1	15	0	0	0	0	0	0	0	0	0	0	9.7	13.6	19.1	0	0	15.7
0900	13	383	3	0	10	0	0	0	0	0	0	0	0	0	0	9	13.7	16.8	0	0	15.4
1000	13	396	1	1	7	0	3	1	0	0	0	0	0	0	0	7.8	13.3	19	0	0	15.9
1100	14	410	1	0	12	0	1	0	0	0	0	0	0	0	0	7.7	14.1	19.2	0	0	17
1200	14	424	0	0	13	0	0	1	0	0	0	0	0	0	0	12.3	15.6	19.6	0	0	17.9
1300	2	426	0	0	2	0	0	0	0	0	0	0	0	0	0	12.7	14.3	16	0	0	-
1400	9	435	1	0	7	0	1	0	0	0	0	0	0	0	0	9.1	12	17.3	0	0	-
1500	11	446	0	0	10	0	1	0	0	0	0	0	0	0	0	11.9	14.7	17.8	0	0	16.1
1600	7	453	0	1	6	0	0	0	0	0	0	0	0	0	0	9.2	16	20.7	0	0	-
1700	11	464	2	0	8	0	0	1	0	0	0	0	0	0	0	7.4	14.4	19.3	0	0	16.8
1800	8	472	0	0	8	0	0	0	0	0	0	0	0	0	0	8.6	11.9	14.3	0	0	-
1900	7	479	1	0	5	0	1	0	0	0	0	0	0	0	0	12.6	15.1	18	0	0	-
2000	4	483	0	0	4	0	0	0	0	0	0	0	0	0	0	12.4	14.6	16.7	0	0	-
2100	3	486	1	0	2	0	0	0	0	0	0	0	0	0	0	10.5	12.2	13.1	0	0	-
2200	2	488	0	0	2	0	0	0	0	0	0	0	0	0	0	11.5	12.4	13.2	0	0	-
2300	1	489	0	0	1	0	0	0	0	0	0	0	0	0	0	12.8	12.8	12.8	0	0	-
07-19	141	489	18	6	108	0	6	3	0	0	0	0	0	0	0	7.4	13.9	20.7	0	0	16.8
06-22	159	489	20	6	122	0	7	4	0	0	0	0	0	0	0	7.4	14	20.7	0	0	16.8
06-00	162	489	20	6	125	0	7	4	0	0	0	0	0	0	0	7.4	14	20.7	0	0	16.8
00-00	165	489	20	6	128	0	7	4	0	0	0	0	0	0	0	7.4	14	23.8	0	0	16.8

Benchmark Data Collection

Sat 08 Time	June Total	2013 RunTot	Northbound			Car / Van	Car / Van (T)	R2 / Bus	R3 / Bus	R4	A3	A4	A5	A6	A6 [2]	A7 [2]	Vmin	Mean	Vmax	>PSL 30	>PSL% 30	Vpp 85
			Bicycle	Motor Cycle																		
0000	1	490	0	0	1	0	0	0	0	0	0	0	0	0	0	11	11	11	0	0	-	
0100	0	490	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-	
0200	0	490	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-	
0300	0	490	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-	
0400	3	493	0	0	3	0	0	0	0	0	0	0	0	0	0	13.7	17.6	23.6	0	0	-	
0500	2	495	0	0	2	0	0	0	0	0	0	0	0	0	0	18.9	19.6	20.4	0	0	-	
0600	1	496	0	0	1	0	0	0	0	0	0	0	0	0	0	19.2	19.2	19.2	0	0	-	
0700	2	498	0	0	2	0	0	0	0	0	0	0	0	0	0	16.1	17.6	19.2	0	0	-	
0800	13	511	1	0	12	0	0	0	0	0	0	0	0	0	0	7.3	14.8	20.1	0	0	17	
0900	9	520	0	1	8	0	0	0	0	0	0	0	0	0	0	10.6	15.5	18.8	0	0	-	
1000	9	529	2	0	7	0	0	0	0	0	0	0	0	0	0	7.1	13.1	17.3	0	0	-	
1100	11	540	0	0	10	0	0	1	0	0	0	0	0	0	0	10.2	14.4	18.8	0	0	17.7	
1200	12	552	1	0	11	0	0	0	0	0	0	0	0	0	0	7.9	13.1	16.5	0	0	15	
1300	7	559	0	1	6	0	0	0	0	0	0	0	0	0	0	8.3	15	18.4	0	0	-	
1400	6	565	0	0	6	0	0	0	0	0	0	0	0	0	0	10.5	14.8	19.1	0	0	-	
1500	12	577	2	1	9	0	0	0	0	0	0	0	0	0	0	10.8	14.4	18.5	0	0	15.9	
1600	15	592	1	0	14	0	0	0	0	0	0	0	0	0	0	7.1	14.7	19.4	0	0	17.4	
1700	13	605	0	0	11	0	0	0	2	0	0	0	0	0	0	7.4	13.9	20.2	0	0	17.9	
1800	7	612	0	1	6	0	0	0	0	0	0	0	0	0	0	11.7	14.8	19.4	0	0	-	
1900	7	619	1	1	5	0	0	0	0	0	0	0	0	0	0	12.8	14.8	16.4	0	0	-	
2000	1	620	0	1	0	0	0	0	0	0	0	0	0	0	0	17.7	17.7	17.7	0	0	-	
2100	2	622	0	0	2	0	0	0	0	0	0	0	0	0	0	13.1	13.2	13.3	0	0	-	
2200	1	623	0	0	1	0	0	0	0	0	0	0	0	0	0	18	18	18	0	0	-	
2300	3	626	0	0	3	0	0	0	0	0	0	0	0	0	0	12.2	15.1	16.5	0	0	-	
07-19	116	626	7	4	102	0	0	1	2	0	0	0	0	0	0	7.1	14.4	20.2	0	0	17.7	
06-22	127	626	8	6	110	0	0	1	2	0	0	0	0	0	0	7.1	14.5	20.2	0	0	17.7	
06-00	131	626	8	6	114	0	0	1	2	0	0	0	0	0	0	7.1	14.5	20.2	0	0	17.7	
00-00	137	626	8	6	120	0	0	1	2	0	0	0	0	0	0	7.1	14.6	23.6	0	0	17.7	

Benchmark Data Collection

Sun 09 Time	June Total	2013 RunTot	Northbound		Car / Van	Car / Van (T)	R2 / Bus	R3 / Bus	R4	A3	A4	A5	A6	A6 [2]	A7 [2]	Vmin	Mean	Vmax	>PSL 30	>PSL% 30	Vpp 85
			Bicycle	Motor Cycle																	
0000	0	626	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0100	3	629	0	0	3	0	0	0	0	0	0	0	0	0	0	13.4	16.5	21.4	0	0	-
0200	0	629	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0300	0	629	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0400	0	629	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0500	0	629	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0600	1	630	0	0	1	0	0	0	0	0	0	0	0	0	0	10.1	10.1	10.1	0	0	-
0700	1	631	0	0	1	0	0	0	0	0	0	0	0	0	0	16.2	16.2	16.2	0	0	-
0800	1	632	0	0	1	0	0	0	0	0	0	0	0	0	0	13.6	13.6	13.6	0	0	-
0900	7	639	2	0	5	0	0	0	0	0	0	0	0	0	0	8.6	13.7	19.7	0	0	-
1000	12	651	0	1	9	0	1	1	0	0	0	0	0	0	0	8.8	15.1	18.9	0	0	17.9
1100	6	657	0	0	6	0	0	0	0	0	0	0	0	0	0	7.1	13.7	19.1	0	0	-
1200	6	663	0	0	6	0	0	0	0	0	0	0	0	0	0	12.3	15.7	17.5	0	0	-
1300	14	677	0	0	14	0	0	0	0	0	0	0	0	0	0	9.5	14.2	19.5	0	0	15.9
1400	7	684	1	0	6	0	0	0	0	0	0	0	0	0	0	7.6	12.6	16.4	0	0	-
1500	6	690	0	0	6	0	0	0	0	0	0	0	0	0	0	10.3	15.5	19.1	0	0	-
1600	8	698	1	0	7	0	0	0	0	0	0	0	0	0	0	12.2	15.2	18	0	0	-
1700	0	698	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
1800	6	704	0	0	5	0	0	0	1	0	0	0	0	0	0	11.8	14.5	18.6	0	0	-
1900	5	709	2	0	3	0	0	0	0	0	0	0	0	0	0	11.5	13.7	18.1	0	0	-
2000	2	711	0	0	2	0	0	0	0	0	0	0	0	0	0	11.6	13.5	15.3	0	0	-
2100	2	713	0	0	2	0	0	0	0	0	0	0	0	0	0	7.6	10.6	13.5	0	0	-
2200	0	713	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
2300	2	715	0	0	1	0	0	1	0	0	0	0	0	0	0	11.2	11.6	12.1	0	0	-
07-19	74	715	4	1	66	0	1	1	1	0	0	0	0	0	0	7.1	14.5	19.7	0	0	17.2
06-22	84	715	6	1	74	0	1	1	1	0	0	0	0	0	0	7.1	14.3	19.7	0	0	17.2
06-00	86	715	6	1	75	0	1	2	1	0	0	0	0	0	0	7.1	14.2	19.7	0	0	17.2
00-00	89	715	6	1	78	0	1	2	1	0	0	0	0	0	0	7.1	14.3	21.4	0	0	17.2

Benchmark Data Collection

Mon 10 Time	June Total	2013 RunTot	Northbound		Car / Van	Car / Van (T)	R2 / Bus	R3 / Bus	R4	A3	A4	A5	A6	A6 [2]	A7 [2]	Vmin	Mean	Vmax	>PSL 30	>PSL% 30	Vpp 85
0000	0	715	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0100	1	716	0	0	1	0	0	0	0	0	0	0	0	0	0	13.8	13.8	13.8	0	0	-
0200	0	716	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0300	1	717	0	0	1	0	0	0	0	0	0	0	0	0	0	21.3	21.3	21.3	0	0	-
0400	0	717	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0500	2	719	0	0	2	0	0	0	0	0	0	0	0	0	0	13.7	15.4	17	0	0	-
0600	7	726	0	0	7	0	0	0	0	0	0	0	0	0	0	10.6	13.8	15.4	0	0	-
0700	17	743	2	5	9	0	0	1	0	0	0	0	0	0	0	7.1	16.3	23.1	0	0	17.4
0800	21	764	2	0	18	0	0	1	0	0	0	0	0	0	0	10.8	14.5	18.7	0	0	16.1
0900	11	775	2	2	6	0	1	0	0	0	0	0	0	0	0	9.1	14.6	16.3	0	0	15.9
1000	11	786	3	0	8	0	0	0	0	0	0	0	0	0	0	9.4	14.6	20.5	0	0	17.7
1100	12	798	1	0	9	0	2	0	0	0	0	0	0	0	0	5	12.8	16	0	0	15.2
1200	9	807	2	0	7	0	0	0	0	0	0	0	0	0	0	8.9	13.6	15.8	0	0	-
1300	8	815	0	0	6	0	2	0	0	0	0	0	0	0	0	12	15.9	20.3	0	0	-
1400	9	824	0	0	8	0	1	0	0	0	0	0	0	0	0	9.5	12.9	18	0	0	-
1500	14	838	0	1	13	0	0	0	0	0	0	0	0	0	0	9.9	13.1	18.7	0	0	15.7
1600	7	845	0	0	7	0	0	0	0	0	0	0	0	0	0	13.1	15	17.9	0	0	-
1700	7	852	0	1	5	0	1	0	0	0	0	0	0	0	0	10.9	13.5	18.4	0	0	-
1800	9	861	0	0	8	0	1	0	0	0	0	0	0	0	0	9.4	14.6	18.9	0	0	-
1900	5	866	0	0	5	0	0	0	0	0	0	0	0	0	0	12	16.2	21.2	0	0	-
2000	4	870	1	0	3	0	0	0	0	0	0	0	0	0	0	10.3	12.8	16.9	0	0	-
2100	3	873	1	0	1	0	0	1	0	0	0	0	0	0	0	9.3	14	18.3	0	0	-
2200	4	877	0	1	2	0	0	1	0	0	0	0	0	0	0	10	12.3	13.7	0	0	-
2300	0	877	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
07-19	135	877	12	9	104	0	8	2	0	0	0	0	0	0	0	5	14.3	23.1	0	0	17
06-22	154	877	14	9	120	0	8	3	0	0	0	0	0	0	0	5	14.3	23.1	0	0	17
06-00	158	877	14	10	122	0	8	4	0	0	0	0	0	0	0	5	14.3	23.1	0	0	17
00-00	162	877	14	10	126	0	8	4	0	0	0	0	0	0	0	5	14.3	23.1	0	0	17

Benchmark Data Collection

Tue 11 Time	June Total	2013 RunTot	Northbound		Car / Van	Car / Van (T)	R2 / Bus	R3 / Bus	R4	A3	A4	A5	A6	A6 [2]	A7 [2]	Vmin	Mean	Vmax	>PSL 30	>PSL% 30	Vpp 85
0000	1	878	0	0	1	0	0	0	0	0	0	0	0	0	0	14.2	14.2	14.2	0	0	-
0100	1	879	0	0	1	0	0	0	0	0	0	0	0	0	0	18.1	18.1	18.1	0	0	-
0200	0	879	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0300	1	880	0	0	1	0	0	0	0	0	0	0	0	0	0	20.9	20.9	20.9	0	0	-
0400	0	880	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	-
0500	3	883	0	0	3	0	0	0	0	0	0	0	0	0	0	10.8	15.1	17.7	0	0	-
0600	7	890	0	0	7	0	0	0	0	0	0	0	0	0	0	12.6	16.3	18.5	0	0	-
0700	22	912	3	2	16	0	0	1	0	0	0	0	0	0	0	7.3	14.7	18.4	0	0	17.7
0800	19	931	4	1	12	0	1	0	1	0	0	0	0	0	0	8.8	14.3	21.7	0	0	17.2
0900	13	944	2	1	8	0	2	0	0	0	0	0	0	0	0	9.1	13.2	18.1	0	0	16.1
1000	8	952	0	0	8	0	0	0	0	0	0	0	0	0	0	9.6	14	18	0	0	-
1100	11	963	0	0	9	0	1	1	0	0	0	0	0	0	0	10.8	13.3	16.7	0	0	14.3
1200	7	970	0	1	5	0	0	1	0	0	0	0	0	0	0	12.7	14.3	15.8	0	0	-
1300	11	981	1	0	10	0	0	0	0	0	0	0	0	0	0	5.3	13.6	22.3	0	0	16.6
1400	9	990	1	0	8	0	0	0	0	0	0	0	0	0	0	13.3	15.8	17.2	0	0	-
1500	10	1000	1	0	9	0	0	0	0	0	0	0	0	0	0	9.8	13.9	18.2	0	0	-
1600	8	1008	1	0	7	0	0	0	0	0	0	0	0	0	0	8.4	14.8	19.9	0	0	-
1700	7	1015	1	0	6	0	0	0	0	0	0	0	0	0	0	8.9	15.4	18.2	0	0	-
1800	9	1024	0	0	8	0	0	1	0	0	0	0	0	0	0	9.1	13.4	17.2	0	0	-
1900	6	1030	0	0	6	0	0	0	0	0	0	0	0	0	0	11.1	14.2	17.6	0	0	-
2000	4	1034	0	0	4	0	0	0	0	0	0	0	0	0	0	15.4	16.3	18	0	0	-
2100	3	1037	2	0	1	0	0	0	0	0	0	0	0	0	0	9.6	12.9	18.6	0	0	-
2200	2	1039	0	0	2	0	0	0	0	0	0	0	0	0	0	11.1	11.3	11.5	0	0	-
07-19	134	1039	14	5	106	0	4	4	1	0	0	0	0	0	0	5.3	14.2	22.3	0	0	17
06-22	154	1039	16	5	124	0	4	4	1	0	0	0	0	0	0	5.3	14.3	22.3	0	0	17
06-00	156	1039	16	5	126	0	4	4	1	0	0	0	0	0	0	5.3	14.3	22.3	0	0	17
00-00	162	1039	16	5	132	0	4	4	1	0	0	0	0	0	0	5.3	14.4	22.3	0	0	17.2
Total	Total	RunTot	Northbound		Car /	Car /	R2 /	R3 /	R4	A3	A4	A5	A6	A6	A7	Vmin	Mean	Vmax	>PSL	>PSL%	Vpp
--	1039	1039	105	45	835	0	33	16	5	0	0	0	0	0	0	5	14.2	24.1	0	0	17.2

APPENDIX D
PICADY Modelling Results

TRL LIMITED

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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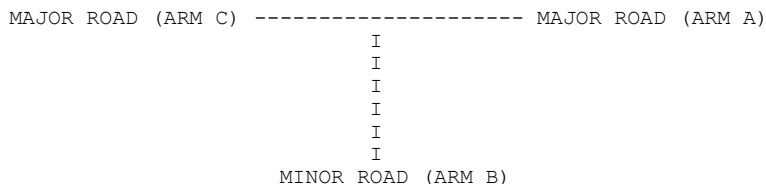
Run with file:-
"N:_London\Current Jobs\BHLatchmere\Modelling and TRICS\Modelling - 89 Units\Picady\Site Access.vpi"
(drive-on-the-left) at 13:15:59 on Friday, 13 December 2013

RUN INFORMATION

RUN TITLE : Site Access - Latchmere Lane
LOCATION : Richmond
DATE : 13/12/13
CLIENT :
ENUMERATOR : A J PLANT
JOB NUMBER :
STATUS : Final Version
DESCRIPTION :

MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



ARM A IS Latchmere Lane N
ARM B IS Site Access
ARM C IS Latchmere Lane S

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

 GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.60 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 2.20 M.	I
I	- VISIBILITY	I	(VC-B) 70.00 M.	I
I	- BLOCKS TRAFFIC (SPACES)	I	YES (0)	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 39.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 70.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) -	I
I	- LANE 2 WIDTH	I	(WB-A) -	I
I	WIDTH AT 0 M FROM JUNCTION	I	4.40 M.	I
I	WIDTH AT 5 M FROM JUNCTION	I	2.40 M.	I
I	WIDTH AT 10 M FROM JUNCTION	I	2.40 M.	I
I	WIDTH AT 15 M FROM JUNCTION	I	2.40 M.	I
I	WIDTH AT 20 M FROM JUNCTION	I	2.40 M.	I
I	- LENGTH OF FLARED SECTION	I	DERIVED: 0 PCU	I

 .SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For	Opposing	Slope For	Opposing	I
I	STREAM B-C	STREAM	A-C	STREAM	A-B	I
I	0.00		0.00		0.00	I

* Due to the presence of a flare, data is not available

I	Intercept For	Slope For	Opposing	Slope For	Opposing	Slope For	Opposing	Slope For	Opposing	I
I	STREAM B-A	STREAM	A-C	STREAM	A-B	STREAM	C-A	STREAM	C-B	I
I	0.00		0.00		0.00		0.00		0.00	I

* Due to the presence of a flare, data is not available

I	Intercept For	Slope For	Opposing	Slope For	Opposing	I
I	STREAM C-B	STREAM	A-C	STREAM	A-B	I
I	614.50		0.23		0.23	I

(NB These values do not allow for any site specific corrections)

 TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE (%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: AM Total

TIME PERIOD BEGINS 07.30 AND ENDS 09.00

LENGTH OF TIME PERIOD - 90 MIN.
 LENGTH OF TIME SEGMENT - 15 MIN.

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

I	ARM	I	NUMBER OF MINUTES FROM START WHEN	I	RATE OF FLOW (VEH/MIN)	I
I	I	I	FLOW STARTS	I	BEFORE	I
I	I	I	TOP OF PEAK	I	AT TOP	I
I	I	I	IS REACHED	I	OF PEAK	I
I	I	I	FALLING	I	PEAK	I
I	I	I		I		I
I	I	I		I		I
I	ARM A	I	15.00	I	0.85	I
I	ARM B	I	15.00	I	0.28	I
I	ARM C	I	15.00	I	1.40	I

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-C	0.24	10.16	0.023		0.02	0.02	0.4		0.10
B-A	0.17	7.15	0.023		0.02	0.02	0.4		0.14
C-AB	0.16	10.96	0.014		0.02	0.02	0.2		0.09
C-A	1.90								
A-B	0.09								
A-C	1.16								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-C	0.19	10.23	0.019		0.02	0.02	0.3		0.10
B-A	0.13	7.25	0.019		0.02	0.02	0.3		0.14
C-AB	0.12	10.77	0.011		0.02	0.01	0.2		0.09
C-A	1.56								
A-B	0.07								
A-C	0.94								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-C	0.16	10.27	0.016		0.02	0.02	0.2		0.10
B-A	0.11	7.32	0.015		0.02	0.02	0.2		0.14
C-AB	0.10	10.64	0.009		0.01	0.01	0.2		0.09
C-A	1.31								
A-B	0.06								
A-C	0.79								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.0
08.00	0.0
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.0
08.00	0.0
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.0
08.00	0.0
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND	* QUEUEING * * DELAY *	* INCLUSIVE QUEUEING * * DELAY *
(VEH)	(VEH/H)	(MIN)	(MIN/VEH)
B-C	17.9	1.8	0.10
B-A	12.4	1.7	0.14
C-AB	11.3	1.2	0.10
C-A	142.8		
A-B	6.9		
A-C	86.7		
ALL	278.0	4.7	0.02

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*****END OF RUN*****

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For	Slope For	Opposing	Slope For	Opposing
STREAM B-C	STREAM A-C	STREAM A-C	STREAM A-B	STREAM A-B
0.00	0.00		0.00	

* Due to the presence of a flare, data is not available

Intercept For	Slope For	Opposing	Slope For	Opposing	Slope For	Opposing
STREAM B-A	STREAM A-C	STREAM A-B	STREAM C-A	STREAM C-B	STREAM C-B	STREAM C-B
0.00	0.00	0.00	0.00	0.00	0.00	0.00

* Due to the presence of a flare, data is not available

Intercept For	Slope For	Opposing	Slope For	Opposing
STREAM C-B	STREAM A-C	STREAM A-B	STREAM A-B	STREAM A-B
614.50	0.23		0.23	

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

ARM	FLOW SCALE (%)
A	100
B	100
C	100

Demand set: PM Total

TIME PERIOD BEGINS 17.15 AND ENDS 18.45

LENGTH OF TIME PERIOD - 90 MIN.
 LENGTH OF TIME SEGMENT - 15 MIN.

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.00-18.15									
B-C	0.09	10.12	0.009		0.01	0.01	0.1		0.10
B-A	0.06	7.02	0.008		0.01	0.01	0.1		0.14
C-AB	0.23	10.60	0.021		0.03	0.03	0.4		0.10
C-A	1.11								
A-B	0.15								
A-C	1.61								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.15-18.30									
B-C	0.07	10.20	0.007		0.01	0.01	0.1		0.10
B-A	0.04	7.12	0.006		0.01	0.01	0.1		0.14
C-AB	0.18	10.53	0.017		0.03	0.02	0.3		0.10
C-A	0.91								
A-B	0.12								
A-C	1.32								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.30-18.45									
B-C	0.06	10.26	0.006		0.01	0.01	0.1		0.10
B-A	0.04	7.19	0.005		0.01	0.01	0.1		0.14
C-AB	0.15	10.48	0.014		0.02	0.02	0.2		0.10
C-A	0.77								
A-B	0.10								
A-C	1.10								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT	NO. OF VEHICLES IN QUEUE
ENDING	
17.30	0.0
17.45	0.0
18.00	0.0
18.15	0.0
18.30	0.0
18.45	0.0

QUEUE FOR STREAM B-A

TIME SEGMENT	NO. OF VEHICLES IN QUEUE
ENDING	
17.30	0.0
17.45	0.0
18.00	0.0
18.15	0.0
18.30	0.0
18.45	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT	NO. OF VEHICLES IN QUEUE
ENDING	
17.30	0.0
17.45	0.0
18.00	0.0
18.15	0.0
18.30	0.0
18.45	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND	* QUEUEING * * DELAY *	* INCLUSIVE QUEUEING * * DELAY *
(VEH)	(VEH/H)	(MIN)	(MIN)
B-C	6.9	0.7	0.7
B-A	4.1	0.6	0.6
C-AB	16.7	1.9	1.9
C-A	83.8		
A-B	11.0		
A-C	121.1		
ALL	243.6	3.1	3.1

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*****END OF RUN*****

==== end of file =====

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
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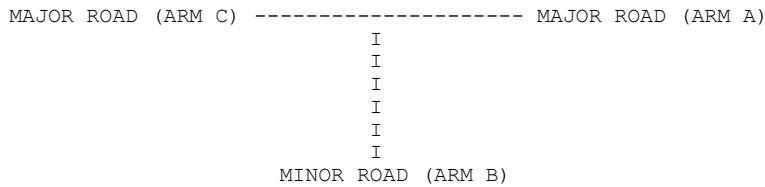
Run with file:-
"N:_London\Current Jobs\BHLatchmere\Modelling and TRICS\Modelling - 89 Units\Picady\Site Access.vpi"
(drive-on-the-left) at 11:16:09 on Friday, 13 December 2013

RUN INFORMATION

RUN TITLE : Site Access
LOCATION : Richmond
DATE : 20/05/13
CLIENT :
ENUMERATOR : JGILBY [JGILBY]
JOB NUMBER :
STATUS : Final Version
DESCRIPTION :

MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



ARM A IS Church Rd E
ARM B IS Site Access
ARM C IS Church Rd W

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

 GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.00 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 2.20 M.	I
I	- VISIBILITY	I	(VC-B) 70.00 M.	I
I	- BLOCKS TRAFFIC (SPACES)	I	YES (0)	I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 13.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 11.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) -	I
I	- LANE 2 WIDTH	I	(WB-A) -	I
I	WIDTH AT 0 M FROM JUNCTION	I	7.60 M.	I
I	WIDTH AT 5 M FROM JUNCTION	I	3.70 M.	I
I	WIDTH AT 10 M FROM JUNCTION	I	2.80 M.	I
I	WIDTH AT 15 M FROM JUNCTION	I	2.50 M.	I
I	WIDTH AT 20 M FROM JUNCTION	I	2.50 M.	I
I	- LENGTH OF FLARED SECTION	I	1 VEHS	I

 .SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For	Opposing	Slope For	Opposing	I
I	STREAM B-C	STREAM	A-C	STREAM	A-B	I
I	0.00		0.00		0.00	I

* Due to the presence of a flare, data is not available

I	Intercept For	Slope For	Opposing	Slope For	Opposing	Slope For	Opposing	Slope For	Opposing	I
I	STREAM B-A	STREAM	A-C	STREAM	A-B	STREAM	C-A	STREAM	C-B	I
I	0.00		0.00		0.00		0.00		0.00	I

* Due to the presence of a flare, data is not available

I	Intercept For	Slope For	Opposing	Slope For	Opposing	I
I	STREAM C-B	STREAM	A-C	STREAM	A-B	I
I	614.50		0.24		0.24	I

(NB These values do not allow for any site specific corrections)

 TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE (%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: AM Base

TIME PERIOD BEGINS 07.30 AND ENDS 09.00

LENGTH OF TIME PERIOD - 90 MIN.
 LENGTH OF TIME SEGMENT - 15 MIN.

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

I	ARM	I	NUMBER OF MINUTES FROM START WHEN	I	RATE OF FLOW (VEH/MIN)	I
I	I	I	FLOW STARTS	I	BEFORE	I
I	I	I	TO RISE	I	AT TOP	I
I	I	I	IS REACHED	I	OF PEAK	I
I	I	I	FALLING	I	PEAK	I
I	I	I		I		I
I	I	I		I		I
I	ARM A	I	15.00	I	0.41	I
I	ARM B	I	15.00	I	0.17	I
I	ARM C	I	15.00	I	0.56	I

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-C	0.06	9.89	0.006		0.01	0.01	0.1		0.10
B-A	0.20	8.06	0.025		0.03	0.03	0.4		0.13
C-AB	0.16	7.85	0.020		0.02	0.02	0.4		0.13
C-A	0.67								
A-B	0.09								
A-C	0.51								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-C	0.04	9.93	0.005		0.01	0.00	0.1		0.10
B-A	0.16	8.12	0.020		0.03	0.02	0.3		0.13
C-AB	0.13	7.78	0.017		0.02	0.02	0.3		0.13
C-A	0.55								
A-B	0.07								
A-C	0.42								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-C	0.04	9.96	0.004		0.00	0.00	0.1		0.10
B-A	0.14	8.16	0.017		0.02	0.02	0.3		0.12
C-AB	0.11	7.72	0.014		0.02	0.02	0.2		0.13
C-A	0.46								
A-B	0.06								
A-C	0.35								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.0
08.00	0.0
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.0
08.00	0.0
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.0
08.00	0.0
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND	* QUEUEING * * DELAY *	* INCLUSIVE QUEUEING * * DELAY *
(VEH)	(VEH/H)	(MIN)	(MIN/VEH)
B-C	4.1	2.8	0.4
B-A	15.1	10.1	1.9
C-AB	11.9	7.9	1.8
C-A	50.0	33.4	
A-B	6.9	4.6	
A-C	38.5	25.7	
ALL	126.6	84.4	4.1

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*****END OF RUN*****

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For	Slope For	Opposing	Slope For	Opposing
STREAM B-C	STREAM A-C	STREAM A-C	STREAM A-B	STREAM A-B
0.00	0.00		0.00	

* Due to the presence of a flare, data is not available

Intercept For	Slope For	Opposing	Slope For	Opposing	Slope For	Opposing
STREAM B-A	STREAM A-C	STREAM A-B	STREAM C-A	STREAM C-B	STREAM C-B	STREAM C-B
0.00	0.00	0.00	0.00	0.00	0.00	0.00

* Due to the presence of a flare, data is not available

Intercept For	Slope For	Opposing	Slope For	Opposing
STREAM C-B	STREAM A-C	STREAM A-B	STREAM A-B	STREAM A-B
614.50	0.24		0.24	

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

ARM	FLOW SCALE (%)
A	100
B	100
C	100

Demand set: PM Base

TIME PERIOD BEGINS 17.15 AND ENDS 18.45

LENGTH OF TIME PERIOD - 90 MIN.
 LENGTH OF TIME SEGMENT - 15 MIN.

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.00-18.15									
B-C	0.04	9.77	0.004		0.00	0.00	0.1		0.10
B-A	0.15	7.99	0.018		0.02	0.02	0.3		0.13
C-AB	0.10	10.24	0.009		0.01	0.01	0.2		0.10
C-A	0.45								
A-B	0.17								
A-C	1.14								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.15-18.30									
B-C	0.03	9.83	0.003		0.00	0.00	0.0		0.10
B-A	0.12	8.06	0.015		0.02	0.02	0.2		0.13
C-AB	0.08	10.24	0.008		0.01	0.01	0.1		0.10
C-A	0.37								
A-B	0.13								
A-C	0.93								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.30-18.45									
B-C	0.03	9.87	0.003		0.00	0.00	0.0		0.10
B-A	0.10	8.11	0.012		0.02	0.01	0.2		0.12
C-AB	0.06	10.24	0.006		0.01	0.01	0.1		0.10
C-A	0.31								
A-B	0.11								
A-C	0.78								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.30	0.0
17.45	0.0
18.00	0.0
18.15	0.0
18.30	0.0
18.45	0.0

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.30	0.0
17.45	0.0
18.00	0.0
18.15	0.0
18.30	0.0
18.45	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.30	0.0
17.45	0.0
18.00	0.0
18.15	0.0
18.30	0.0
18.45	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND	* QUEUEING * * DELAY *	* INCLUSIVE QUEUEING * * DELAY *
(VEH)	(VEH/H)	(MIN)	(MIN/VEH)
B-C	2.8	0.3	0.10
B-A	11.0	1.4	0.13
C-AB	7.2	0.8	0.11
C-A	34.1		
A-B	12.4		
A-C	85.3		
ALL	152.8	2.4	0.02

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*****END OF RUN*****

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For	Slope For	Opposing	Slope For	Opposing
STREAM B-C	STREAM A-C	A-C	STREAM A-B	A-B
0.00	0.00		0.00	

* Due to the presence of a flare, data is not available

Intercept For	Slope For	Opposing	Slope For	Opposing	Slope For	Opposing
STREAM B-A	STREAM A-C	A-C	STREAM A-B	A-B	STREAM C-A	STREAM C-B
0.00	0.00		0.00		0.00	0.00

* Due to the presence of a flare, data is not available

Intercept For	Slope For	Opposing	Slope For	Opposing
STREAM C-B	STREAM A-C	A-C	STREAM A-B	A-B
614.50	0.24		0.24	

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

ARM	FLOW SCALE (%)
A	100
B	100
C	100

Demand set: AM Total

TIME PERIOD BEGINS 07.30 AND ENDS 09.00

LENGTH OF TIME PERIOD - 90 MIN.
 LENGTH OF TIME SEGMENT - 15 MIN.

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-C	0.13	9.80	0.013		0.01	0.01	0.2		0.10
B-A	0.39	8.01	0.048		0.05	0.05	0.8		0.13
C-AB	0.20	8.57	0.023		0.03	0.03	0.4		0.12
C-A	0.72								
A-B	0.18								
A-C	0.62								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-C	0.10	9.85	0.011		0.01	0.01	0.2		0.10
B-A	0.31	8.08	0.039		0.05	0.04	0.6		0.13
C-AB	0.16	8.50	0.019		0.03	0.02	0.3		0.12
C-A	0.59								
A-B	0.15								
A-C	0.51								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-C	0.09	9.89	0.009		0.01	0.01	0.1		0.10
B-A	0.26	8.12	0.032		0.04	0.03	0.5		0.13
C-AB	0.13	8.45	0.016		0.02	0.02	0.3		0.12
C-A	0.49								
A-B	0.13								
A-C	0.43								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT	NO. OF VEHICLES IN QUEUE
07.45	0.0
08.00	0.0
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUE FOR STREAM B-A

TIME SEGMENT	NO. OF VEHICLES IN QUEUE
07.45	0.0
08.00	0.0
08.15	0.1
08.30	0.1
08.45	0.0
09.00	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT	NO. OF VEHICLES IN QUEUE
07.45	0.0
08.00	0.0
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND	* QUEUEING * * DELAY *	* INCLUSIVE QUEUEING * * DELAY *
(VEH)	(VEH/H)	(MIN)	(MIN/VEH)
B-C	9.6	1.0	0.10
B-A	28.9	3.7	0.13
C-AB	14.9	2.0	0.14
C-A	54.0		
A-B	13.8		
A-C	46.8		
ALL	167.9	6.7	0.04

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*****END OF RUN*****

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For	Slope For	Opposing	Slope For	Opposing
STREAM B-C	STREAM A-C	STREAM A-C	STREAM A-B	STREAM A-B
0.00	0.00		0.00	

* Due to the presence of a flare, data is not available

Intercept For	Slope For	Opposing	Slope For	Opposing	Slope For	Opposing
STREAM B-A	STREAM A-C	STREAM A-B	STREAM C-A	STREAM C-B	STREAM C-B	STREAM C-B
0.00	0.00	0.00	0.00	0.00	0.00	0.00

* Due to the presence of a flare, data is not available

Intercept For	Slope For	Opposing	Slope For	Opposing
STREAM C-B	STREAM A-C	STREAM A-B	STREAM A-B	STREAM A-B
614.50	0.24		0.24	

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

ARM	FLOW SCALE (%)
A	100
B	100
C	100

Demand set: PM Total

TIME PERIOD BEGINS 17.15 AND ENDS 18.45

LENGTH OF TIME PERIOD - 90 MIN.
 LENGTH OF TIME SEGMENT - 15 MIN.

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.00-18.15									
B-C	0.06	9.73	0.006		0.01	0.01	0.1		0.10
B-A	0.22	7.94	0.028		0.03	0.03	0.4		0.13
C-AB	0.16	10.26	0.015		0.02	0.02	0.3		0.10
C-A	0.54								
A-B	0.33								
A-C	1.14								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.15-18.30									
B-C	0.04	9.79	0.005		0.01	0.00	0.1		0.10
B-A	0.18	8.02	0.022		0.03	0.02	0.4		0.13
C-AB	0.13	10.26	0.012		0.02	0.01	0.2		0.10
C-A	0.44								
A-B	0.27								
A-C	0.93								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.30-18.45									
B-C	0.04	9.84	0.004		0.00	0.00	0.1		0.10
B-A	0.15	8.08	0.019		0.02	0.02	0.3		0.13
C-AB	0.10	10.25	0.010		0.01	0.01	0.2		0.10
C-A	0.37								
A-B	0.23								
A-C	0.78								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT	NO. OF VEHICLES IN QUEUE
ENDING	
17.30	0.0
17.45	0.0
18.00	0.0
18.15	0.0
18.30	0.0
18.45	0.0

QUEUE FOR STREAM B-A

TIME SEGMENT	NO. OF VEHICLES IN QUEUE
ENDING	
17.30	0.0
17.45	0.0
18.00	0.0
18.15	0.0
18.30	0.0
18.45	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT	NO. OF VEHICLES IN QUEUE
ENDING	
17.30	0.0
17.45	0.0
18.00	0.0
18.15	0.0
18.30	0.0
18.45	0.0

 QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND	* QUEUEING * * DELAY *	* INCLUSIVE QUEUEING * * DELAY *
(VEH)	(VEH/H)	(MIN)	(MIN/VEH)
B-C	4.1	2.8	0.4
B-A	16.5	11.0	0.13
C-AB	11.5	7.7	0.11
C-A	40.8	27.2	
A-B	24.8	16.5	
A-C	85.3	56.9	
ALL	183.1	122.0	3.8

 * DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
 WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
 A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*****END OF RUN*****

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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Run with file:-

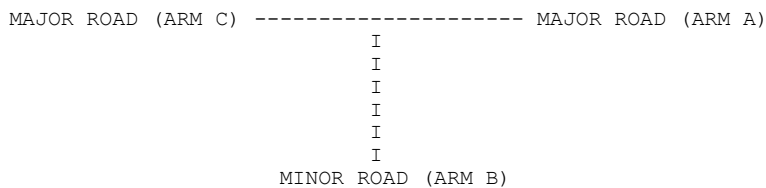
"N:_London\Current Jobs\BHLatchmere\Modelling and TRICS\Modelling - 89 Units\Picady\
Church Rd - Latchmere Ln.vpi"
(drive-on-the-left) at 11:02:48 on Friday, 13 December 2013

RUN INFORMATION

RUN TITLE : Church Rd - Latchmere Ln
LOCATION : Richmond
DATE : 20/05/13
CLIENT :
ENUMERATOR : JGILBY [JGILBY]
JOB NUMBER :
STATUS : Final Version
DESCRIPTION :

MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



ARM A IS Church Rd E
ARM B IS Latchmere Ln
ARM C IS Church Rd W

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 6.00 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 2.20 M.	I
I	- VISIBILITY	I	(VC-B) 70.00 M.	I
I	- BLOCKS TRAFFIC (SPACES)	I	YES (0)	I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 14.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 14.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) -	I
I	- LANE 2 WIDTH	I	(WB-A) -	I
I	WIDTH AT 0 M FROM JUNCTION	I	9.00 M.	I
I	WIDTH AT 5 M FROM JUNCTION	I	3.90 M.	I
I	WIDTH AT 10 M FROM JUNCTION	I	2.60 M.	I
I	WIDTH AT 15 M FROM JUNCTION	I	2.30 M.	I
I	WIDTH AT 20 M FROM JUNCTION	I	2.20 M.	I
I	- LENGTH OF FLARED SECTION	I	1 VEHS	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For	Opposing	Slope For	Opposing	I
I	STREAM B-C	STREAM	A-C	STREAM	A-B	I
I	0.00		0.00		0.00	I

* Due to the presence of a flare, data is not available

I	Intercept For	Slope For	Opposing	Slope For	Opposing	Slope For	Opposing	Slope For	Opposing	I
I	STREAM B-A	STREAM	A-C	STREAM	A-B	STREAM	C-A	STREAM	C-B	I
I	0.00		0.00		0.00		0.00		0.00	I

* Due to the presence of a flare, data is not available

I	Intercept For	Slope For	Opposing	Slope For	Opposing	I
I	STREAM C-B	STREAM	A-C	STREAM	A-B	I
I	614.50		0.24		0.24	I

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE (%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: AM Base

TIME PERIOD BEGINS 07.30 AND ENDS 09.00

LENGTH OF TIME PERIOD - 90 MIN.
 LENGTH OF TIME SEGMENT - 15 MIN.

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

I	ARM	I	NUMBER OF MINUTES FROM START WHEN	I	RATE OF FLOW (VEH/MIN)	I
I	I	I	FLOW STARTS	I	BEFORE	I
I	I	I	TO RISE	I	AT TOP	I
I	I	I	IS REACHED	I	OF PEAK	I
I	I	I	FLOW STOPS	I	PEAK	I
I	I	I	FALLING	I	OF PEAK	I
I	I	I	I	I	I	I
I	ARM A	I	15.00	I	0.38	I
I	ARM B	I	15.00	I	1.27	I
I	ARM C	I	15.00	I	0.60	I

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-C	0.37	10.37	0.035		0.04	0.04	0.5		0.10
B-A	1.50	8.06	0.187		0.23	0.23	3.4		0.15
C-AB	0.20	10.56	0.019		0.02	0.02	0.3		0.10
C-A	0.68								
A-B	0.31								
A-C	0.24								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-C	0.30	10.51	0.029		0.04	0.03	0.5		0.10
B-A	1.23	8.11	0.152		0.23	0.18	2.8		0.15
C-AB	0.16	10.50	0.015		0.02	0.02	0.3		0.10
C-A	0.56								
A-B	0.25								
A-C	0.19								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-C	0.25	10.61	0.024		0.03	0.02	0.4		0.10
B-A	1.03	8.14	0.126		0.18	0.15	2.2		0.14
C-AB	0.13	10.46	0.013		0.02	0.01	0.2		0.10
C-A	0.47								
A-B	0.21								
A-C	0.16								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.0
08.00	0.0
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.1
08.00	0.2
08.15	0.2
08.30	0.2
08.45	0.2
09.00	0.1

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.0
08.00	0.0
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND	* QUEUEING * * DELAY *	* INCLUSIVE QUEUEING * * DELAY *
(VEH)	(VEH/H)	(MIN)	(MIN/VEH)
B-C	27.5	18.4	2.7
B-A	112.9	75.2	16.4
C-AB	14.6	9.7	1.6
C-A	51.5	34.3	
A-B	23.4	15.6	
A-C	17.9	11.9	
ALL	247.8	165.2	20.7

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*****END OF RUN*****

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For	Slope For	Opposing	Slope For	Opposing
STREAM B-C	STREAM A-C	STREAM A-C	STREAM A-B	STREAM A-B
0.00	0.00		0.00	

* Due to the presence of a flare, data is not available

Intercept For	Slope For	Opposing	Slope For	Opposing	Slope For	Opposing
STREAM B-A	STREAM A-C	STREAM A-B	STREAM C-A	STREAM C-B	STREAM C-B	STREAM C-B
0.00	0.00	0.00	0.00	0.00	0.00	0.00

* Due to the presence of a flare, data is not available

Intercept For	Slope For	Opposing	Slope For	Opposing
STREAM C-B	STREAM A-C	STREAM A-B	STREAM A-B	STREAM A-B
614.50	0.24		0.24	

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

ARM	FLOW SCALE (%)
A	100
B	100
C	100

Demand set: PM Base

TIME PERIOD BEGINS 17.15 AND ENDS 18.45

LENGTH OF TIME PERIOD - 90 MIN.
 LENGTH OF TIME SEGMENT - 15 MIN.

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.00-18.15									
B-C	1.01	10.50	0.096		0.11	0.11	1.6		0.11
B-A	0.46	8.67	0.053		0.06	0.06	0.8		0.12
C-AB	0.41	10.25	0.040		0.04	0.04	0.7		0.10
C-A	0.23								
A-B	0.29								
A-C	0.33								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.15-18.30									
B-C	0.82	10.55	0.078		0.11	0.09	1.3		0.10
B-A	0.37	8.73	0.043		0.06	0.05	0.7		0.12
C-AB	0.34	10.25	0.033		0.04	0.04	0.5		0.10
C-A	0.19								
A-B	0.24								
A-C	0.27								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.30-18.45									
B-C	0.69	10.58	0.065		0.09	0.07	1.1		0.10
B-A	0.31	8.77	0.036		0.05	0.04	0.6		0.12
C-AB	0.28	10.25	0.027		0.04	0.03	0.4		0.10
C-A	0.16								
A-B	0.20								
A-C	0.23								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.30	0.1
17.45	0.1
18.00	0.1
18.15	0.1
18.30	0.1
18.45	0.1

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.30	0.0
17.45	0.0
18.00	0.1
18.15	0.1
18.30	0.0
18.45	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.30	0.0
17.45	0.0
18.00	0.0
18.15	0.0
18.30	0.0
18.45	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND	* QUEUEING * * DELAY *	* INCLUSIVE QUEUEING * * DELAY *
(VEH)	(VEH/H)	(MIN)	(MIN/VEH)
B-C	75.7	50.5	7.8
B-A	34.4	22.9	4.1
C-AB	30.9	20.6	3.2
C-A	17.3	11.5	
A-B	22.0	14.7	
A-C	24.8	16.5	
ALL	205.1	136.7	15.1

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*****END OF RUN*****

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For	Slope For	Opposing	Slope For	Opposing
STREAM B-C	STREAM A-C	STREAM A-C	STREAM A-B	STREAM A-B
0.00	0.00		0.00	

* Due to the presence of a flare, data is not available

Intercept For	Slope For	Opposing	Slope For	Opposing	Slope For	Opposing
STREAM B-A	STREAM A-C	STREAM A-B	STREAM C-A	STREAM C-B	STREAM C-B	STREAM C-B
0.00	0.00	0.00	0.00	0.00	0.00	0.00

* Due to the presence of a flare, data is not available

Intercept For	Slope For	Opposing	Slope For	Opposing
STREAM C-B	STREAM A-C	STREAM A-B	STREAM A-B	STREAM A-B
614.50	0.24		0.24	

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

ARM	FLOW SCALE (%)
A	100
B	100
C	100

Demand set: AM Total

TIME PERIOD BEGINS 07.30 AND ENDS 09.00

LENGTH OF TIME PERIOD - 90 MIN.
 LENGTH OF TIME SEGMENT - 15 MIN.

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-C	0.55	10.49	0.052		0.05	0.06	0.8		0.10
B-A	1.56	7.98	0.195		0.24	0.24	3.6		0.16
C-AB	0.41	10.58	0.039		0.05	0.05	0.7		0.10
C-A	0.71								
A-B	0.35								
A-C	0.26								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-C	0.45	10.65	0.042		0.06	0.04	0.7		0.10
B-A	1.27	8.04	0.158		0.24	0.19	2.9		0.15
C-AB	0.33	10.51	0.032		0.05	0.04	0.5		0.10
C-A	0.58								
A-B	0.28								
A-C	0.21								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-C	0.38	10.75	0.035		0.04	0.04	0.6		0.10
B-A	1.07	8.09	0.132		0.19	0.15	2.4		0.14
C-AB	0.28	10.47	0.026		0.04	0.03	0.4		0.10
C-A	0.49								
A-B	0.24								
A-C	0.18								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.0
08.00	0.0
08.15	0.1
08.30	0.1
08.45	0.0
09.00	0.0

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.2
08.00	0.2
08.15	0.2
08.30	0.2
08.45	0.2
09.00	0.2

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.0
08.00	0.0
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND	* QUEUEING * * DELAY *	* INCLUSIVE QUEUEING * * DELAY *
(VEH)	(VEH/H)	(MIN)	(MIN/VEH)
B-C	41.3	27.5	4.0
B-A	117.0	78.0	17.3
C-AB	30.7	20.5	3.3
C-A	53.2	35.5	
A-B	26.2	17.4	
A-C	19.3	12.8	
ALL	287.7	191.8	24.7

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*****END OF RUN*****

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For	Slope For	Opposing	Slope For	Opposing
STREAM B-C	STREAM A-C	STREAM A-C	STREAM A-B	STREAM A-B
0.00	0.00		0.00	

* Due to the presence of a flare, data is not available

Intercept For	Slope For	Opposing	Slope For	Opposing	Slope For	Opposing
STREAM B-A	STREAM A-C	STREAM A-B	STREAM C-A	STREAM C-B	STREAM C-B	STREAM C-B
0.00	0.00	0.00	0.00	0.00	0.00	0.00

* Due to the presence of a flare, data is not available

Intercept For	Slope For	Opposing	Slope For	Opposing
STREAM C-B	STREAM A-C	STREAM A-B	STREAM A-B	STREAM A-B
614.50	0.24		0.24	

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

ARM	FLOW SCALE (%)
A	100
B	100
C	100

Demand set: PM Total

TIME PERIOD BEGINS 17.15 AND ENDS 18.45

LENGTH OF TIME PERIOD - 90 MIN.
 LENGTH OF TIME SEGMENT - 15 MIN.

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

Table with columns for ARM, NUMBER OF MINUTES FROM START WHEN FLOW STARTS, TOP OF PEAK, FLOW STOPS, RATE OF FLOW (VEH/MIN) BEFORE, AT TOP, AFTER PEAK, OF PEAK, AFTER PEAK.

Demand set: PM Total

Table showing TURNING PROPORTIONS and TURNING COUNTS (PERCENTAGE OF H.V.S) for TIME 17.15 - 18.45, including FROM/TO, ARM A, ARM B, ARM C.

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR DEMAND SET AND FOR TIME PERIOD PM Total 2

Table for 17.15-17.30 time segment with columns: TIME, DEMAND (VEH/MIN), CAPACITY (VEH/MIN), DEMAND/CAPACITY (RFC), PEDESTRIAN FLOW (PEDS/MIN), START QUEUE (VEHS), END QUEUE (VEHS), DELAY (VEH.MIN/TIME SEGMENT), GEOMETRIC DELAY (VEH.MIN/TIME SEGMENT), AVERAGE DELAY PER ARRIVING VEHICLE (MIN).

Table for 17.30-17.45 time segment with columns: TIME, DEMAND (VEH/MIN), CAPACITY (VEH/MIN), DEMAND/CAPACITY (RFC), PEDESTRIAN FLOW (PEDS/MIN), START QUEUE (VEHS), END QUEUE (VEHS), DELAY (VEH.MIN/TIME SEGMENT), GEOMETRIC DELAY (VEH.MIN/TIME SEGMENT), AVERAGE DELAY PER ARRIVING VEHICLE (MIN).

Table for 17.45-18.00 time segment with columns: TIME, DEMAND (VEH/MIN), CAPACITY (VEH/MIN), DEMAND/CAPACITY (RFC), PEDESTRIAN FLOW (PEDS/MIN), START QUEUE (VEHS), END QUEUE (VEHS), DELAY (VEH.MIN/TIME SEGMENT), GEOMETRIC DELAY (VEH.MIN/TIME SEGMENT), AVERAGE DELAY PER ARRIVING VEHICLE (MIN).

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	18.00-18.15										I
I	B-C	1.17	10.48	0.112		0.13	0.13	1.9		0.11	I
I	B-A	0.48	8.60	0.056		0.06	0.06	0.9		0.12	I
I	C-AB	0.56	10.24	0.055		0.06	0.06	0.9		0.10	I
I	C-A	0.24									I
I	A-B	0.35									I
I	A-C	0.37									I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	18.15-18.30										I
I	B-C	0.96	10.53	0.091		0.13	0.10	1.5		0.10	I
I	B-A	0.39	8.67	0.045		0.06	0.05	0.7		0.12	I
I	C-AB	0.46	10.24	0.045		0.06	0.05	0.7		0.10	I
I	C-A	0.20									I
I	A-B	0.28									I
I	A-C	0.30									I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	18.30-18.45										I
I	B-C	0.80	10.57	0.076		0.10	0.08	1.3		0.10	I
I	B-A	0.33	8.72	0.037		0.05	0.04	0.6		0.12	I
I	C-AB	0.38	10.24	0.037		0.05	0.04	0.6		0.10	I
I	C-A	0.17									I
I	A-B	0.24									I
I	A-C	0.25									I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT	NO. OF VEHICLES IN QUEUE
ENDING	
17.30	0.1
17.45	0.1
18.00	0.1
18.15	0.1
18.30	0.1
18.45	0.1

QUEUE FOR STREAM B-A

TIME SEGMENT	NO. OF VEHICLES IN QUEUE
ENDING	
17.30	0.0
17.45	0.0
18.00	0.1
18.15	0.1
18.30	0.0
18.45	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT	NO. OF VEHICLES IN QUEUE
ENDING	
17.30	0.0
17.45	0.0
18.00	0.1
18.15	0.1
18.30	0.0
18.45	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND	* QUEUEING * * DELAY *	* INCLUSIVE QUEUEING * * DELAY *
(VEH)	(VEH/H)	(MIN)	(MIN/VEH)
B-C	88.1	58.7	9.2
B-A	35.8	23.9	4.3
C-AB	42.2	28.1	4.5
C-A	18.4	12.2	
A-B	26.2	17.4	
A-C	27.5	18.4	
ALL	238.1	158.7	17.9

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
 WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
 A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*****END OF RUN*****

==== end of file =====

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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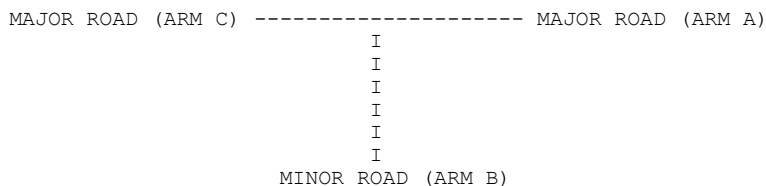
Run with file:-
"N:_London\Current Jobs\BHLatchmere\Modelling and TRICS\Modelling - 89 Units\Picady\
Church Rd - Ham Gate Av.vpi"
(drive-on-the-left) at 11:01:28 on Friday, 13 December 2013

RUN INFORMATION

RUN TITLE : Church Rd - Ham Gate Av
LOCATION : Richmond
DATE : 20/05/13
CLIENT :
ENUMERATOR : aplant [APLANT]
JOB NUMBER :
STATUS : Final Version
DESCRIPTION :

MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



ARM A IS Ham Gate E
ARM B IS Church Rd
ARM C IS Ham Gate W

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 6.00 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 2.20 M.
- VISIBILITY	(VC-B) 100.00 M.
- BLOCKS TRAFFIC (SPACES)	YES (0)
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 17.0 M.
- VISIBILITY TO RIGHT	(VB-A) 14.0 M.
- LANE 1 WIDTH	(WB-C) -
- LANE 2 WIDTH	(WB-A) -
WIDTH AT 0 M FROM JUNCTION	7.90 M.
WIDTH AT 5 M FROM JUNCTION	3.50 M.
WIDTH AT 10 M FROM JUNCTION	3.20 M.
WIDTH AT 15 M FROM JUNCTION	2.90 M.
WIDTH AT 20 M FROM JUNCTION	2.90 M.
- LENGTH OF FLARED SECTION	1 VEHS

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For Stream B-C	Slope For Stream A-C	Opposing Stream A-C	Slope For Stream A-B	Opposing Stream A-B
0.00	0.00	0.00	0.00	0.00

* Due to the presence of a flare, data is not available

Intercept For Stream B-A	Slope For Stream A-C	Opposing Stream A-C	Slope For Stream A-B	Opposing Stream A-B	Slope For Stream C-A	Opposing Stream C-A	Slope For Stream C-B	Opposing Stream C-B
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* Due to the presence of a flare, data is not available

Intercept For Stream C-B	Slope For Stream A-C	Opposing Stream A-C	Slope For Stream A-B	Opposing Stream A-B
631.87	0.24	0.24	0.24	0.24

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

ARM	FLOW SCALE (%)
A	100
B	100
C	100

Demand set: AM Base

TIME PERIOD BEGINS 07.30 AND ENDS 09.00

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	1.54	2.31	1.54
ARM B	15.00	45.00	75.00	1.48	2.21	1.48
ARM C	15.00	45.00	75.00	2.30	3.45	2.30

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-C	0.39	9.25	0.042		0.04	0.04	0.6		0.11
B-A	1.78	7.56	0.235		0.30	0.31	4.6		0.17
C-AB	0.20	11.10	0.018		0.02	0.02	0.3		0.09
C-A	3.17								
A-B	0.48								
A-C	1.78								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-C	0.31	9.51	0.033		0.04	0.03	0.5		0.11
B-A	1.45	7.75	0.188		0.31	0.23	3.6		0.16
C-AB	0.16	10.78	0.015		0.02	0.02	0.3		0.09
C-A	2.60								
A-B	0.39								
A-C	1.45								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-C	0.26	9.68	0.027		0.03	0.03	0.4		0.11
B-A	1.22	7.88	0.154		0.23	0.18	2.8		0.15
C-AB	0.13	10.55	0.012		0.02	0.01	0.2		0.10
C-A	2.18								
A-B	0.33								
A-C	1.22								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.0
08.00	0.0
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.2
08.00	0.2
08.15	0.3
08.30	0.3
08.45	0.2
09.00	0.2

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.0
08.00	0.0
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND	* QUEUEING * * DELAY *	* INCLUSIVE QUEUEING * * DELAY *
(VEH)	(VEH/H)	(MIN)	(MIN/VEH)
B-C	28.9	3.1	0.11
B-A	133.5	21.4	0.16
C-AB	14.6	1.6	0.11
C-A	238.6	159.1	
A-B	35.8	23.9	
A-C	133.5	89.0	
ALL	585.0	390.0	26.1

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*****END OF RUN*****

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For	Slope For	Opposing	Slope For	Opposing
STREAM B-C	STREAM A-C	STREAM A-C	STREAM A-B	STREAM A-B
0.00	0.00		0.00	

* Due to the presence of a flare, data is not available

Intercept For	Slope For	Opposing	Slope For	Opposing	Slope For	Opposing
STREAM B-A	STREAM A-C	STREAM A-B	STREAM C-A	STREAM C-B	STREAM C-B	STREAM C-B
0.00	0.00	0.00	0.00	0.00	0.00	0.00

* Due to the presence of a flare, data is not available

Intercept For	Slope For	Opposing	Slope For	Opposing
STREAM C-B	STREAM A-C	STREAM A-B	STREAM A-B	STREAM A-B
631.87	0.24		0.24	

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

ARM	FLOW SCALE (%)
A	100
B	100
C	100

Demand set: PM Base

TIME PERIOD BEGINS 17.15 AND ENDS 18.45

LENGTH OF TIME PERIOD - 90 MIN.
 LENGTH OF TIME SEGMENT - 15 MIN.

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	18.00-18.15										I
I	B-C	0.17	9.91	0.017		0.02	0.02	0.3		0.10	I
I	B-A	0.39	7.96	0.048		0.05	0.05	0.8		0.13	I
I	C-AB	0.28	10.58	0.027		0.03	0.03	0.5		0.10	I
I	C-A	0.91									I
I	A-B	1.14									I
I	A-C	1.21									I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	18.15-18.30										I
I	B-C	0.13	10.01	0.013		0.02	0.01	0.2		0.10	I
I	B-A	0.31	8.07	0.039		0.05	0.04	0.6		0.13	I
I	C-AB	0.23	10.57	0.021		0.03	0.03	0.4		0.10	I
I	C-A	0.75									I
I	A-B	0.93									I
I	A-C	0.99									I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	18.30-18.45										I
I	B-C	0.11	10.08	0.011		0.01	0.01	0.2		0.10	I
I	B-A	0.26	8.15	0.032		0.04	0.03	0.5		0.13	I
I	C-AB	0.19	10.56	0.018		0.03	0.02	0.3		0.10	I
I	C-A	0.63									I
I	A-B	0.78									I
I	A-C	0.83									I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT	NO. OF VEHICLES IN QUEUE
ENDING	
17.30	0.0
17.45	0.0
18.00	0.0
18.15	0.0
18.30	0.0
18.45	0.0

QUEUE FOR STREAM B-A

TIME SEGMENT	NO. OF VEHICLES IN QUEUE
ENDING	
17.30	0.0
17.45	0.0
18.00	0.1
18.15	0.1
18.30	0.0
18.45	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT	NO. OF VEHICLES IN QUEUE
ENDING	
17.30	0.0
17.45	0.0
18.00	0.0
18.15	0.0
18.30	0.0
18.45	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND	* QUEUEING * * DELAY *	* INCLUSIVE QUEUEING * * DELAY *
(VEH)	(VEH/H)	(MIN)	(MIN/VEH)
B-C	12.4	1.2	0.10
B-A	28.9	3.7	0.13
C-AB	20.8	2.4	0.11
C-A	68.6		
A-B	85.3		
A-C	90.8		
ALL	306.9	7.3	0.02

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*****END OF RUN*****

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For	Slope For	Opposing	Slope For	Opposing
STREAM B-C	STREAM A-C	STREAM A-C	STREAM A-B	STREAM A-B
0.00	0.00		0.00	

* Due to the presence of a flare, data is not available

Intercept For	Slope For	Opposing	Slope For	Opposing	Slope For	Opposing
STREAM B-A	STREAM A-C	STREAM A-B	STREAM C-A	STREAM C-B	STREAM C-B	STREAM C-B
0.00	0.00	0.00	0.00	0.00	0.00	0.00

* Due to the presence of a flare, data is not available

Intercept For	Slope For	Opposing	Slope For	Opposing
STREAM C-B	STREAM A-C	STREAM A-B	STREAM A-B	STREAM A-B
631.87	0.24		0.24	

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

ARM	FLOW SCALE (%)
A	100
B	100
C	100

Demand set: AM Total

TIME PERIOD BEGINS 07.30 AND ENDS 09.00

LENGTH OF TIME PERIOD - 90 MIN.
 LENGTH OF TIME SEGMENT - 15 MIN.

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

Table with columns: I ARM, NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE, NUMBER OF MINUTES FROM START WHEN TOP OF PEAK IS REACHED, NUMBER OF MINUTES FROM START WHEN FLOW STOPS FALLING, RATE OF FLOW (VEH/MIN) BEFORE PEAK, RATE OF FLOW (VEH/MIN) AT TOP OF PEAK, RATE OF FLOW (VEH/MIN) AFTER PEAK. Includes rows for ARM A, B, and C.

Demand set: AM Total

Table showing turning proportions and counts for AM Total. Columns include: TIME, FROM/TO, ARM A, ARM B, ARM C, and percentages of H.V.S. Includes a row for 07.30 - 09.00.

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR DEMAND SET AND FOR TIME PERIOD AM Total 1

Table for 07.30-07.45 time segment. Columns: TIME, DEMAND (VEH/MIN), CAPACITY (VEH/MIN), DEMAND/CAPACITY (RFC), PEDESTRIAN FLOW (PEDS/MIN), START QUEUE (VEHS), END QUEUE (VEHS), DELAY (VEH.MIN/TIME SEGMENT), GEOMETRIC DELAY (VEH.MIN/TIME SEGMENT), AVERAGE DELAY PER ARRIVING VEHICLE (MIN). Includes rows for B-C, B-A, C-AB, C-A, A-B, A-C.

Table for 07.45-08.00 time segment. Columns: TIME, DEMAND (VEH/MIN), CAPACITY (VEH/MIN), DEMAND/CAPACITY (RFC), PEDESTRIAN FLOW (PEDS/MIN), START QUEUE (VEHS), END QUEUE (VEHS), DELAY (VEH.MIN/TIME SEGMENT), GEOMETRIC DELAY (VEH.MIN/TIME SEGMENT), AVERAGE DELAY PER ARRIVING VEHICLE (MIN). Includes rows for B-C, B-A, C-AB, C-A, A-B, A-C.

Table for 08.00-08.15 time segment. Columns: TIME, DEMAND (VEH/MIN), CAPACITY (VEH/MIN), DEMAND/CAPACITY (RFC), PEDESTRIAN FLOW (PEDS/MIN), START QUEUE (VEHS), END QUEUE (VEHS), DELAY (VEH.MIN/TIME SEGMENT), GEOMETRIC DELAY (VEH.MIN/TIME SEGMENT), AVERAGE DELAY PER ARRIVING VEHICLE (MIN). Includes rows for B-C, B-A, C-AB, C-A, A-B, A-C.

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	08.15-08.30										I
I	B-C	0.39	9.20	0.042		0.04	0.04	0.7		0.11	I
I	B-A	1.87	7.56	0.248		0.32	0.33	4.9		0.18	I
I	C-AB	0.20	11.09	0.018		0.02	0.02	0.3		0.09	I
I	C-A	3.17									I
I	A-B	0.53									I
I	A-C	1.78									I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	08.30-08.45										I
I	B-C	0.31	9.47	0.033		0.04	0.03	0.5		0.11	I
I	B-A	1.53	7.74	0.197		0.33	0.25	3.8		0.16	I
I	C-AB	0.16	10.77	0.015		0.02	0.02	0.3		0.09	I
I	C-A	2.60									I
I	A-B	0.43									I
I	A-C	1.45									I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	08.45-09.00										I
I	B-C	0.26	9.65	0.027		0.03	0.03	0.4		0.11	I
I	B-A	1.28	7.88	0.162		0.25	0.20	3.0		0.15	I
I	C-AB	0.13	10.54	0.012		0.02	0.01	0.2		0.10	I
I	C-A	2.18									I
I	A-B	0.36									I
I	A-C	1.22									I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.0
08.00	0.0
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.2
08.00	0.2
08.15	0.3
08.30	0.3
08.45	0.2
09.00	0.2

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.0
08.00	0.0
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL	DEMAND	I	* QUEUEING *	I	* INCLUSIVE *	QUEUEING	* I
I	I	I	I	I	I	* DELAY *	I	* DELAY *	I	I
I	I	I	(VEH)	(VEH/H)	I	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)	I
I	B-C	I	28.9	I 19.3	I	3.2	I 0.11	I	3.2	I 0.11
I	B-A	I	140.4	I 93.6	I	22.8	I 0.16	I	22.8	I 0.16
I	C-AB	I	14.6	I 9.8	I	1.6	I 0.11	I	1.6	I 0.11
I	C-A	I	238.6	I 159.1	I		I	I	I	I
I	A-B	I	39.9	I 26.6	I		I	I	I	I
I	A-C	I	133.5	I 89.0	I		I	I	I	I
I	ALL	I	596.0	I 397.3	I	27.5	I 0.05	I	27.5	I 0.05

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*****END OF RUN*****

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For	Opposing	Slope For	Opposing	I
I	STREAM B-C	STREAM	A-C	STREAM	A-B	I
I	0.00		0.00		0.00	I

* Due to the presence of a flare, data is not available

I	Intercept For	Slope For	Opposing	Slope For	Opposing	Slope For	Opposing	I
I	STREAM B-A	STREAM	A-C	STREAM	A-B	STREAM	C-A	STREAM
I							C-B	I
I	0.00		0.00		0.00		0.00	I

* Due to the presence of a flare, data is not available

I	Intercept For	Slope For	Opposing	Slope For	Opposing	I
I	STREAM C-B	STREAM	A-C	STREAM	A-B	I
I	631.87		0.24		0.24	I

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

I	ARM	I	FLOW	SCALE (%)	I
I	A	I	100		I
I	B	I	100		I
I	C	I	100		I

Demand set: PM Total

TIME PERIOD BEGINS 17.15 AND ENDS 18.45

LENGTH OF TIME PERIOD - 90 MIN.
 LENGTH OF TIME SEGMENT - 15 MIN.

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.00-18.15									
B-C	0.17	9.90	0.017		0.02	0.02	0.3		0.10
B-A	0.40	7.95	0.051		0.05	0.05	0.8		0.13
C-AB	0.28	10.56	0.027		0.03	0.03	0.5		0.10
C-A	0.91								
A-B	1.23								
A-C	1.21								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.15-18.30									
B-C	0.13	10.00	0.013		0.02	0.01	0.2		0.10
B-A	0.33	8.06	0.041		0.05	0.04	0.7		0.13
C-AB	0.23	10.55	0.021		0.03	0.03	0.4		0.10
C-A	0.75								
A-B	1.00								
A-C	0.99								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.30-18.45									
B-C	0.11	10.07	0.011		0.01	0.01	0.2		0.10
B-A	0.28	8.15	0.034		0.04	0.04	0.5		0.13
C-AB	0.19	10.55	0.018		0.03	0.02	0.3		0.10
C-A	0.63								
A-B	0.84								
A-C	0.83								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.30	0.0
17.45	0.0
18.00	0.0
18.15	0.0
18.30	0.0
18.45	0.0

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.30	0.0
17.45	0.0
18.00	0.1
18.15	0.1
18.30	0.0
18.45	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.30	0.0
17.45	0.0
18.00	0.0
18.15	0.0
18.30	0.0
18.45	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND	* QUEUEING * * DELAY *	* INCLUSIVE QUEUEING * * DELAY *
(VEH)	(VEH/H)	(MIN)	(MIN/VEH)
B-C	12.4	1.3	0.10
B-A	30.3	3.9	0.13
C-AB	20.8	2.4	0.11
C-A	68.6	45.7	
A-B	92.2	61.5	
A-C	90.8	60.6	
ALL	315.2	210.1	7.5

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
 WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
 A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*****END OF RUN*****

==== end of file =====

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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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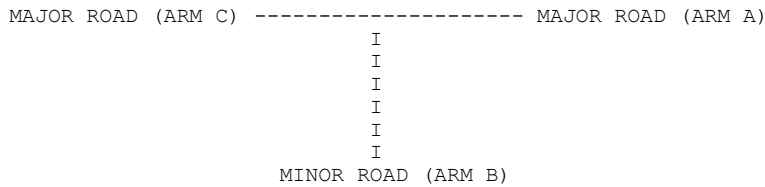
Run with file:-
"N:_London\Current Jobs\BHLatchmere\Modelling and TRICS\Modelling - 89 Units\Picady\A307-Church Rd.vpi"
(drive-on-the-left) at 10:59:53 on Friday, 13 December 2013

RUN INFORMATION

RUN TITLE : A307 - Church Ln
LOCATION : Richmond
DATE : 20/05/13
CLIENT :
ENUMERATOR : JGILBY [JGILBY]
JOB NUMBER :
STATUS : Final Version
DESCRIPTION :

MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



ARM A IS A307 N
ARM B IS Church Rd
ARM C IS A307 S

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 7.90 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 2.20 M.	I
I	- VISIBILITY	I	(VC-B) 120.00 M.	I
I	- BLOCKS TRAFFIC (SPACES)	I	YES (0)	I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 19.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 18.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) -	I
I	- LANE 2 WIDTH	I	(WB-A) -	I
I	WIDTH AT 0 M FROM JUNCTION	I	6.50 M.	I
I	WIDTH AT 5 M FROM JUNCTION	I	3.10 M.	I
I	WIDTH AT 10 M FROM JUNCTION	I	2.40 M.	I
I	WIDTH AT 15 M FROM JUNCTION	I	2.30 M.	I
I	WIDTH AT 20 M FROM JUNCTION	I	2.30 M.	I
I	- LENGTH OF FLARED SECTION	I	1 VEHS	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For	Opposing	Slope For	Opposing	I
I	STREAM B-C	STREAM	A-C	STREAM	A-B	I
I	0.00		0.00		0.00	I

* Due to the presence of a flare, data is not available

I	Intercept For	Slope For	Opposing	Slope For	Opposing	Slope For	Opposing	Slope For	Opposing	I
I	STREAM B-A	STREAM	A-C	STREAM	A-B	STREAM	C-A	STREAM	C-B	I
I	0.00		0.00		0.00		0.00		0.00	I

* Due to the presence of a flare, data is not available

I	Intercept For	Slope For	Opposing	Slope For	Opposing	I
I	STREAM C-B	STREAM	A-C	STREAM	A-B	I
I	643.46		0.23		0.23	I

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

I	ARM	I	FLOW SCALE (%)	I
I	A	I	100	I
I	B	I	100	I
I	C	I	100	I

Demand set: AM Base

TIME PERIOD BEGINS 07.30 AND ENDS 09.00

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

I	ARM	I	NUMBER OF MINUTES FROM START WHEN	I	RATE OF FLOW (VEH/MIN)	I								
I	I	I	FLOW STARTS	I	BEFORE	I								
I	I	I	TOP OF PEAK	I	AT TOP	I								
I	I	I	IS REACHED	I	OF PEAK	I								
I	I	I	FLOW STOPS	I	PEAK	I								
I	I	I	FALLING	I	I	I								
I	I	I	I	I	I	I								
I	ARM A	I	15.00	I	45.00	I	75.00	I	5.66	I	8.49	I	5.66	I
I	ARM B	I	15.00	I	45.00	I	75.00	I	0.47	I	0.71	I	0.47	I
I	ARM C	I	15.00	I	45.00	I	75.00	I	8.23	I	12.34	I	8.23	I

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-C	0.37	7.81	0.047		0.05	0.05	0.7		0.13
B-A	0.33	4.42	0.075		0.08	0.08	1.2		0.24
C-AB	1.73	16.55	0.105		0.22	0.23	3.4		0.07
C-A	10.34								
A-B	0.26								
A-C	8.06								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-C	0.30	8.18	0.037		0.05	0.04	0.6		0.13
B-A	0.27	5.05	0.053		0.08	0.06	0.9		0.21
C-AB	1.10	15.31	0.072		0.23	0.13	2.0		0.07
C-A	8.76								
A-B	0.21								
A-C	6.58								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-C	0.25	8.45	0.030		0.04	0.03	0.5		0.12
B-A	0.23	5.50	0.041		0.06	0.04	0.7		0.19
C-AB	0.80	14.54	0.055		0.13	0.09	1.3		0.07
C-A	7.46								
A-B	0.18								
A-C	5.51								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.0
08.00	0.0
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.0
08.00	0.1
08.15	0.1
08.30	0.1
08.45	0.1
09.00	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.1
08.00	0.1
08.15	0.2
08.30	0.2
08.45	0.1
09.00	0.1

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND	* QUEUEING * * DELAY *	* INCLUSIVE QUEUEING * * DELAY *
(VEH)	(VEH/H)	(MIN)	(MIN/VEH)
B-C	27.5	3.5	0.13
B-A	24.8	5.3	0.21
C-AB	108.8	13.2	0.12
C-A	796.8		
A-B	19.3		
A-C	604.3		
ALL	1581.5	22.0	0.01

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*****END OF RUN*****

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For	Slope For	Opposing	Slope For	Opposing
STREAM B-C	STREAM A-C	STREAM A-C	STREAM A-B	STREAM A-B
0.00	0.00		0.00	

* Due to the presence of a flare, data is not available

Intercept For	Slope For	Opposing	Slope For	Opposing	Slope For	Opposing
STREAM B-A	STREAM A-C	STREAM A-B	STREAM C-A	STREAM C-B	STREAM C-B	STREAM C-B
0.00	0.00	0.00	0.00	0.00	0.00	0.00

* Due to the presence of a flare, data is not available

Intercept For	Slope For	Opposing	Slope For	Opposing
STREAM C-B	STREAM A-C	STREAM A-B	STREAM A-B	STREAM A-B
643.46	0.23		0.23	

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

ARM	FLOW SCALE (%)
A	100
B	100
C	100

Demand set: PM Base

TIME PERIOD BEGINS 17.15 AND ENDS 18.45

LENGTH OF TIME PERIOD - 90 MIN.
 LENGTH OF TIME SEGMENT - 15 MIN.

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.00-18.15									
B-C	0.61	7.68	0.079		0.08	0.09	1.3		0.14
B-A	0.28	3.92	0.070		0.07	0.07	1.1		0.27
C-AB	1.24	14.51	0.086		0.16	0.16	2.5		0.08
C-A	8.45								
A-B	0.46								
A-C	11.52								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.15-18.30									
B-C	0.49	8.20	0.060		0.09	0.06	1.0		0.13
B-A	0.22	4.56	0.049		0.07	0.05	0.8		0.23
C-AB	0.84	13.73	0.061		0.16	0.10	1.5		0.08
C-A	7.07								
A-B	0.37								
A-C	9.41								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.30-18.45									
B-C	0.41	8.58	0.048		0.06	0.05	0.8		0.12
B-A	0.19	5.03	0.037		0.05	0.04	0.6		0.21
C-AB	0.59	13.06	0.045		0.10	0.07	1.0		0.08
C-A	6.04								
A-B	0.31								
A-C	7.88								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.30	0.1
17.45	0.1
18.00	0.1
18.15	0.1
18.30	0.1
18.45	0.1

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.30	0.0
17.45	0.1
18.00	0.1
18.15	0.1
18.30	0.1
18.45	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.30	0.1
17.45	0.1
18.00	0.2
18.15	0.2
18.30	0.1
18.45	0.1

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND	* QUEUEING * * DELAY *	* INCLUSIVE QUEUEING * * DELAY *
(VEH)	(VEH/H)	(MIN)	(MIN/VEH)
B-C	45.4	6.0	0.13
B-A	20.6	4.9	0.24
C-AB	80.1	10.0	0.12
C-A	646.6		
A-B	34.4		
A-C	864.4		
ALL	1691.6	20.8	0.01

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*****END OF RUN*****

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For	Slope For	Opposing	Slope For	Opposing
STREAM B-C	STREAM A-C	STREAM A-C	STREAM A-B	STREAM A-B
0.00	0.00		0.00	

* Due to the presence of a flare, data is not available

Intercept For	Slope For	Opposing	Slope For	Opposing	Slope For	Opposing
STREAM B-A	STREAM A-C	STREAM A-C	STREAM A-B	STREAM C-A	STREAM C-B	STREAM C-B
0.00	0.00		0.00	0.00	0.00	

* Due to the presence of a flare, data is not available

Intercept For	Slope For	Opposing	Slope For	Opposing
STREAM C-B	STREAM A-C	STREAM A-C	STREAM A-B	STREAM A-B
643.46	0.23		0.23	

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

ARM	FLOW SCALE (%)
A	100
B	100
C	100

Demand set: AM Total

TIME PERIOD BEGINS 07.30 AND ENDS 09.00

LENGTH OF TIME PERIOD - 90 MIN.
 LENGTH OF TIME SEGMENT - 15 MIN.

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-C	0.37	7.71	0.048		0.05	0.05	0.7		0.14
B-A	0.51	4.38	0.117		0.13	0.13	2.0		0.26
C-AB	1.73	16.54	0.105		0.22	0.23	3.4		0.07
C-A	10.34								
A-B	0.35								
A-C	8.06								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-C	0.30	8.11	0.037		0.05	0.04	0.6		0.13
B-A	0.42	5.00	0.084		0.13	0.09	1.4		0.22
C-AB	1.10	15.30	0.072		0.23	0.13	2.0		0.07
C-A	8.75								
A-B	0.28								
A-C	6.58								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-C	0.25	8.40	0.030		0.04	0.03	0.5		0.12
B-A	0.35	5.45	0.064		0.09	0.07	1.1		0.20
C-AB	0.80	14.53	0.055		0.13	0.09	1.3		0.07
C-A	7.46								
A-B	0.24								
A-C	5.51								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.0
08.00	0.0
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.1
08.00	0.1
08.15	0.1
08.30	0.1
08.45	0.1
09.00	0.1

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
07.45	0.1
08.00	0.1
08.15	0.2
08.30	0.2
08.45	0.1
09.00	0.1

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND	* QUEUEING * * DELAY *	* INCLUSIVE QUEUEING * * DELAY *
(VEH)	(VEH/H)	(MIN)	(MIN/VEH)
B-C	27.5	18.4	3.5
B-A	38.5	25.7	8.7
C-AB	109.0	72.7	13.2
C-A	796.7	531.1	
A-B	26.2	17.4	
A-C	604.3	402.8	
ALL	1602.2	1068.1	25.4

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*****END OF RUN*****

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For	Slope For	Opposing	Slope For	Opposing
STREAM B-C	STREAM A-C	STREAM A-C	STREAM A-B	STREAM A-B
0.00	0.00		0.00	

* Due to the presence of a flare, data is not available

Intercept For	Slope For	Opposing	Slope For	Opposing	Slope For	Opposing
STREAM B-A	STREAM A-C	STREAM A-B	STREAM C-A	STREAM C-B	STREAM C-B	STREAM C-B
0.00	0.00	0.00	0.00	0.00	0.00	0.00

* Due to the presence of a flare, data is not available

Intercept For	Slope For	Opposing	Slope For	Opposing
STREAM C-B	STREAM A-C	STREAM A-B	STREAM A-B	STREAM A-B
643.46	0.23		0.23	

(NB These values do not allow for any site specific corrections)

TRAFFIC DEMAND DATA

ARM	FLOW SCALE (%)
A	100
B	100
C	100

Demand set: PM Total

TIME PERIOD BEGINS 17.15 AND ENDS 18.45

LENGTH OF TIME PERIOD - 90 MIN.
 LENGTH OF TIME SEGMENT - 15 MIN.

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.00-18.15									
B-C	0.61	7.60	0.080		0.09	0.09	1.3		0.14
B-A	0.33	4.02	0.082		0.09	0.09	1.3		0.27
C-AB	1.24	14.49	0.086		0.16	0.17	2.5		0.08
C-A	8.44								
A-B	0.61								
A-C	11.52								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.15-18.30									
B-C	0.49	8.13	0.061		0.09	0.07	1.0		0.13
B-A	0.27	4.69	0.058		0.09	0.06	1.0		0.23
C-AB	0.84	13.71	0.062		0.17	0.10	1.6		0.08
C-A	7.07								
A-B	0.49								
A-C	9.41								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.30-18.45									
B-C	0.41	8.51	0.049		0.07	0.05	0.8		0.12
B-A	0.23	5.17	0.044		0.06	0.05	0.7		0.20
C-AB	0.59	13.04	0.045		0.10	0.07	1.0		0.08
C-A	6.03								
A-B	0.41								
A-C	7.88								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.30	0.1
17.45	0.1
18.00	0.1
18.15	0.1
18.30	0.1
18.45	0.1

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.30	0.0
17.45	0.1
18.00	0.1
18.15	0.1
18.30	0.1
18.45	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.30	0.1
17.45	0.1
18.00	0.2
18.15	0.2
18.30	0.1
18.45	0.1

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND	* QUEUEING * * DELAY *	* INCLUSIVE QUEUEING * * DELAY *
(VEH)	(VEH/H)	(MIN)	(MIN/VEH)
B-C	45.4	30.3	6.0
B-A	24.8	16.5	5.8
C-AB	80.3	53.5	10.0
C-A	646.5	431.0	
A-B	45.4	30.3	
A-C	864.4	576.3	
ALL	1706.8	1137.8	21.8

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*****END OF RUN*****

==== end of file =====

APPENDIX E
ARCADY Modelling Results

ARCADY 7

Version: 7.1.1.245 [9th June 2011]

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File: N:_London\Current Jobs\BHLatchmere\Modelling and TRICS\Modelling - 89 Units\Arcady\Latchmere Ln Tudor Dr.arc7
Report generation date: 13/12/2013 10:23:23

- » A1 - Existing Layout - D1 - Base, AM
- » A1 - Existing Layout - D2 - Base, PM
- » A1 - Existing Layout - D3 - Total, AM
- » A1 - Existing Layout - D4 - Total, PM

File summary

File Description

Title	Latchmere House
Location	Richmond
Site Number	
Date	20/05/2013
Version	
Status	Final
Identifier	
Client	
Jobnumber	
Enumerator	MAYERBROWN2KJGILBY
Description	

Analysis Options

RFC Threshold	Vehicle Length (m)	Do Queue Variations
0.85	5.75	

Sorting and Display

Show Arm Names	Arm Grouping	Sorting Direction	Sorting Type	Data Matrix Style	Time Style
Yes	Order	Ascending	Numerical	By Destination	Absolute Time

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perHour	min	-Min	perMin

A1 - Existing Layout - D1 - Base, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout		Yes		(D1)		100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type
Base, AM	Base	AM			Yes			07:30	09:00	90	15	ONE HOUR

Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	Latchmere Ln - tudor Dr	1,2,3,4	Mini-roundabout			

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

ID	Name	Description
1	Latchmere Ln N	
2	Tudor Dr E	
3	Latchmere Ln S	
4	Tudor Dr W	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Latchmere Ln N	0.00	99999.00		0.00
Tudor Dr E	0.00	99999.00		0.00
Latchmere Ln S	0.00	99999.00		0.00
Tudor Dr W	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
Latchmere Ln N	3.60	3.60	5.90	1.00	10.70	7.90	0.00	
Tudor Dr E	3.10	3.10	4.70	3.00	8.20	5.20	0.00	

Latchmere Ln S	3.30	3.30	4.30	1.00	10.60	8.40	0.00	
Tudor Dr W	2.70	2.70	5.00	2.00	8.30	5.30	0.00	

Pedestrian Crossings

Arm	Crossing Type
Latchmere Ln N	None
Tudor Dr E	None
Latchmere Ln S	None
Tudor Dr W	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Latchmere Ln N		((calculated))	((calculated))	0.549	927.080
Tudor Dr E		((calculated))	((calculated))	0.539	874.865
Latchmere Ln S		((calculated))	((calculated))	0.533	877.530
Tudor Dr W		((calculated))	((calculated))	0.514	798.362

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)	PHF
Latchmere Ln N	ONE HOUR	Yes	55.00	100.000	N/A
Tudor Dr E	ONE HOUR	Yes	347.00	100.000	N/A
Latchmere Ln S	ONE HOUR	Yes	53.00	100.000	N/A
Tudor Dr W	ONE HOUR	Yes	311.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (Veh/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (Veh/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	Latchmere Ln N	41.41	42.17	N/A	N/A
1	Tudor Dr E	261.24	274.73	N/A	N/A

1	Latchmere Ln S	39.90	39.90	N/A	N/A
1	Tudor Dr W	234.14	247.62	N/A	N/A
2	Latchmere Ln N	49.44	50.35	N/A	N/A
2	Tudor Dr E	311.95	328.05	N/A	N/A
2	Latchmere Ln S	47.65	47.65	N/A	N/A
2	Tudor Dr W	279.58	295.69	N/A	N/A
3	Latchmere Ln N	60.56	61.67	N/A	N/A
3	Tudor Dr E	382.05	401.78	N/A	N/A
3	Latchmere Ln S	58.35	58.35	N/A	N/A
3	Tudor Dr W	342.42	362.14	N/A	N/A
4	Latchmere Ln N	60.56	61.67	N/A	N/A
4	Tudor Dr E	382.05	401.78	N/A	N/A
4	Latchmere Ln S	58.35	58.35	N/A	N/A
4	Tudor Dr W	342.42	362.14	N/A	N/A
5	Latchmere Ln N	49.44	50.35	N/A	N/A
5	Tudor Dr E	311.95	328.05	N/A	N/A
5	Latchmere Ln S	47.65	47.65	N/A	N/A
5	Tudor Dr W	279.58	295.69	N/A	N/A
6	Latchmere Ln N	41.41	42.17	N/A	N/A
6	Tudor Dr E	261.24	274.73	N/A	N/A
6	Latchmere Ln S	39.90	39.90	N/A	N/A
6	Tudor Dr W	234.14	247.62	N/A	N/A

Turning Proportions

Turning Counts or Proportions (Veh/hr) - Latchmere Ln - tudor Dr (for whole period)

		To			
		1	2	3	4
From	1	0.000	24.000	21.000	10.000
	2	47.000	0.000	11.000	289.000
	3	25.000	18.000	0.000	10.000
	4	29.000	261.000	21.000	0.000

Turning Proportions (Veh) - Latchmere Ln - tudor Dr (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.44	0.38	0.18
	2	0.14	0.00	0.03	0.83
	3	0.47	0.34	0.00	0.19
	4	0.09	0.84	0.07	0.00

Vehicle Mix

Average PCU Per Vehicle - Latchmere Ln - tudor Dr (for whole period)

		To			
		1	2	3	4

From	1	1.000	1.000	1.048	1.000
	2	1.043	1.000	1.000	1.055
	3	1.000	1.000	1.000	1.000
	4	1.034	1.061	1.048	1.000

Heavy Vehicle Percentages - Latchmere Ln - tudor Dr (for whole period)

From	To				
		1	2	3	4
	1	0.000	0.000	4.800	0.000
	2	4.300	0.000	0.000	5.500
	3	0.000	0.000	0.000	0.000
4	3.400	6.100	4.800	0.000	

Results

Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (Veh)	Max LOS	Total Demand (Veh/hr)	Total Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Queueing Total Delay (Veh-min)	Inclusive Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
Latchmere Ln N	0.08	0.09	0.09	A	50.47	75.70	6.48	0.09	0.07	6.48	0.09	0.549	927.080
Tudor Dr E	0.48	0.14	0.90	A	318.41	477.62	59.59	0.12	0.66	59.60	0.12	0.539	874.865
Latchmere Ln S	0.09	0.10	0.10	A	48.63	72.95	6.75	0.09	0.08	6.75	0.09	0.533	877.530
Tudor Dr W	0.49	0.17	0.93	A	285.38	428.07	60.93	0.14	0.68	60.94	0.14	0.514	798.362

Main Results

Main results: (07:30-07:45)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
Latchmere Ln N	41.41	10.35	41.18	75.50	224.06	0.00	782.76	552.22	0.053	0.00	0.06
Tudor Dr E	261.24	65.31	259.36	226.34	38.89	0.00	811.21	648.21	0.322	0.00	0.47
Latchmere Ln S	39.90	9.98	39.67	39.63	258.63	0.00	732.64	471.90	0.054	0.00	0.06
Tudor Dr W	234.14	58.53	232.24	230.98	67.32	0.00	721.43	524.33	0.325	0.00	0.47

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

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
Latchmere Ln N	49.44	12.36	49.39	90.63	269.10	0.00	757.10	552.21	0.065	0.06	0.07
Tudor Dr E	311.95	77.99	311.34	271.81	46.67	0.00	807.07	648.21	0.387	0.47	0.62
Latchmere Ln S	47.65	11.91	47.59	47.56	310.45	0.00	703.61	471.90	0.068	0.06	0.07
Tudor Dr W	279.58	69.90	278.95	277.26	80.78	0.00	714.75	524.33	0.391	0.47	0.63

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

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
Latchmere Ln N	60.56	15.14	60.47	110.90	329.22	0.00	722.85	552.21	0.084	0.07	0.09
Tudor Dr E	382.05	95.51	380.96	332.57	57.13	0.00	801.50	648.21	0.477	0.62	0.90
Latchmere Ln S	58.35	14.59	58.26	58.21	379.88	0.00	664.71	471.90	0.088	0.07	0.10
Tudor Dr W	342.42	85.60	341.26	339.27	98.87	0.00	705.76	524.33	0.485	0.63	0.92

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

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
Latchmere Ln N	60.56	15.14	60.55	111.19	330.27	0.00	722.25	552.21	0.084	0.09	0.09
Tudor Dr E	382.05	95.51	382.02	333.58	57.25	0.00	801.44	648.21	0.477	0.90	0.90
Latchmere Ln S	58.35	14.59	58.35	58.35	380.92	0.00	664.13	471.90	0.088	0.10	0.10
Tudor Dr W	342.42	85.60	342.38	340.19	99.09	0.00	705.65	524.33	0.485	0.92	0.93

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

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
Latchmere Ln N	49.44	12.36	49.53	91.09	270.74	0.00	756.16	552.21	0.065	0.09	0.07
Tudor Dr E	311.95	77.99	313.00	273.40	46.87	0.00	806.96	648.21	0.387	0.90	0.64
Latchmere Ln S	47.65	11.91	47.74	47.79	312.09	0.00	702.69	471.90	0.068	0.10	0.07
Tudor Dr W	279.58	69.90	280.71	278.70	81.13	0.00	714.57	524.33	0.391	0.93	0.65

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

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
Latchmere Ln N	41.41	10.35	41.46	76.21	226.48	0.00	781.38	552.22	0.053	0.07	0.06
Tudor Dr E	261.24	65.31	261.87	228.72	39.23	0.00	811.03	648.21	0.322	0.64	0.48
Latchmere Ln S	39.90	9.98	39.96	39.99	261.11	0.00	731.25	471.90	0.055	0.07	0.06
Tudor Dr W	234.14	58.53	234.80	233.18	67.89	0.00	721.15	524.33	0.325	0.65	0.49

Queueing Delay Results

Queueing Delay results: (07:30-07:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Latchmere Ln N	0.81	0.05	0.081	A	A
Tudor Dr E	6.79	0.45	0.108	A	A
Latchmere Ln S	0.84	0.06	0.087	A	A
Tudor Dr W	6.83	0.46	0.122	A	A

Queueing Delay results: (07:45-08:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Latchmere Ln N	1.03	0.07	0.085	A	A
Tudor Dr E	9.08	0.61	0.121	A	A
Latchmere Ln S	1.06	0.07	0.091	A	A
Tudor Dr W	9.22	0.61	0.137	A	A

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Latchmere Ln N	1.34	0.09	0.091	A	A
Tudor Dr E	12.94	0.86	0.142	A	A
Latchmere Ln S	1.41	0.09	0.099	A	A
Tudor Dr W	13.30	0.89	0.164	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay	Queueing Rate Of Delay (Veh-	Average Delay Per Arriving	Unsignalised Level Of	Signalised Level Of
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	(Veh-min)	min/min)	Vehicle (min)	Service	Service
Latchmere Ln N	1.37	0.09	0.091	A	A
Tudor Dr E	13.50	0.90	0.143	A	A
Latchmere Ln S	1.44	0.10	0.099	A	A
Tudor Dr W	13.94	0.93	0.165	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Latchmere Ln N	1.07	0.07	0.085	A	A
Tudor Dr E	9.89	0.66	0.122	A	A
Latchmere Ln S	1.12	0.07	0.092	A	A
Tudor Dr W	10.14	0.68	0.139	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Latchmere Ln N	0.86	0.06	0.081	A	A
Tudor Dr E	7.39	0.49	0.109	A	A
Latchmere Ln S	0.89	0.06	0.087	A	A
Tudor Dr W	7.51	0.50	0.124	A	A

Overview: Mini-roundabout Geometry

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Entry width (m)	Effective flare length (m)	Minimum approach road half-width (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island	Final Slope	Final Intercept (PCU/hr)
Latchmere Ln N	3.60	5.90	1.00	3.60	10.70	7.90	0.00		0.549	927.080
Tudor Dr E	3.10	4.70	3.00	3.10	8.20	5.20	0.00		0.539	874.865
Latchmere Ln S	3.30	4.30	1.00	3.30	10.60	8.40	0.00		0.533	877.530
Tudor Dr W	2.70	5.00	2.00	2.70	8.30	5.30	0.00		0.514	798.362

Overview: Time Segment Results

Time Segment Results

Time Segment	Arm	Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Pedestrian Demand (Ped/hr)	Start Queue (Veh)	End Queue (Veh)	Queueing Total Delay (Veh-min)	Geometric Total Delay (Veh-min)	Average Delay Per Arriving Vehicle (min)
1	Latchmere Ln N	41.41	782.76	0.053	0.00	0.00	0.06	0.81	(0.02)	0.081
1	Tudor Dr E	261.24	811.21	0.322	0.00	0.00	0.47	6.79	(0.02)	0.108
1	Latchmere Ln S	39.90	732.64	0.054	0.00	0.00	0.06	0.84	(0.02)	0.087
1	Tudor Dr W	234.14	721.43	0.325	0.00	0.00	0.47	6.83	(0.02)	0.122

2	Latchmere Ln N	49.44	757.10	0.065	0.00	0.06	0.07	1.03	(0.02)	0.085
2	Tudor Dr E	311.95	807.07	0.387	0.00	0.47	0.62	9.08	(0.02)	0.121
2	Latchmere Ln S	47.65	703.61	0.068	0.00	0.06	0.07	1.06	(0.02)	0.091
2	Tudor Dr W	279.58	714.75	0.391	0.00	0.47	0.63	9.22	(0.02)	0.137
3	Latchmere Ln N	60.56	722.85	0.084	0.00	0.07	0.09	1.34	(0.02)	0.091
3	Tudor Dr E	382.05	801.50	0.477	0.00	0.62	0.90	12.94	(0.02)	0.142
3	Latchmere Ln S	58.35	664.71	0.088	0.00	0.07	0.10	1.41	(0.02)	0.099
3	Tudor Dr W	342.42	705.76	0.485	0.00	0.63	0.92	13.30	(0.02)	0.164
4	Latchmere Ln N	60.56	722.25	0.084	0.00	0.09	0.09	1.37	(0.02)	0.091
4	Tudor Dr E	382.05	801.44	0.477	0.00	0.90	0.90	13.50	(0.02)	0.143
4	Latchmere Ln S	58.35	664.13	0.088	0.00	0.10	0.10	1.44	(0.02)	0.099
4	Tudor Dr W	342.42	705.65	0.485	0.00	0.92	0.93	13.94	(0.02)	0.165
5	Latchmere Ln N	49.44	756.16	0.065	0.00	0.09	0.07	1.07	(0.02)	0.085
5	Tudor Dr E	311.95	806.96	0.387	0.00	0.90	0.64	9.89	(0.02)	0.122
5	Latchmere Ln S	47.65	702.69	0.068	0.00	0.10	0.07	1.12	(0.02)	0.092
5	Tudor Dr W	279.58	714.57	0.391	0.00	0.93	0.65	10.14	(0.02)	0.139
6	Latchmere Ln N	41.41	781.38	0.053	0.00	0.07	0.06	0.86	(0.02)	0.081
6	Tudor Dr E	261.24	811.03	0.322	0.00	0.64	0.48	7.39	(0.02)	0.109
6	Latchmere Ln S	39.90	731.25	0.055	0.00	0.07	0.06	0.89	(0.02)	0.087
6	Tudor Dr W	234.14	721.15	0.325	0.00	0.65	0.49	7.51	(0.02)	0.124

A1 - Existing Layout - D2 - Base, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout		Yes		(D1)		100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type
Base, PM	Base	PM			Yes			17:15	18:45	90	15	ONE HOUR

Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	Latchmere Ln - tudor Dr	1,2,3,4	Mini-roundabout			

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

ID	Name	Description
1	Latchmere Ln N	
2	Tudor Dr E	
3	Latchmere Ln S	
4	Tudor Dr W	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Latchmere Ln N	0.00	99999.00		0.00
Tudor Dr E	0.00	99999.00		0.00
Latchmere Ln S	0.00	99999.00		0.00
Tudor Dr W	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
Latchmere Ln N	3.60	3.60	5.90	1.00	10.70	7.90	0.00	
Tudor Dr E	3.10	3.10	4.70	3.00	8.20	5.20	0.00	
Latchmere Ln S	3.30	3.30	4.30	1.00	10.60	8.40	0.00	
Tudor Dr W	2.70	2.70	5.00	2.00	8.30	5.30	0.00	

Pedestrian Crossings

Arm	Crossing Type
Latchmere Ln N	None
Tudor Dr E	None
Latchmere Ln S	None
Tudor Dr W	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Latchmere Ln N		((calculated))	((calculated))	0.549	927.080
Tudor Dr E		((calculated))	((calculated))	0.539	874.865
Latchmere Ln S		((calculated))	((calculated))	0.533	877.530
Tudor Dr W		((calculated))	((calculated))	0.514	798.362

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)	PHF
Latchmere Ln N	ONE HOUR	Yes	85.00	100.000	N/A
Tudor Dr E	ONE HOUR	Yes	287.00	100.000	N/A
Latchmere Ln S	ONE HOUR	Yes	59.00	100.000	N/A
Tudor Dr W	ONE HOUR	Yes	278.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (Veh/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (Veh/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	Latchmere Ln N	63.99	63.99	N/A	N/A
1	Tudor Dr E	216.07	223.53	N/A	N/A
1	Latchmere Ln S	44.42	44.42	N/A	N/A
1	Tudor Dr W	209.29	217.51	N/A	N/A
2	Latchmere Ln N	76.41	76.41	N/A	N/A
2	Tudor Dr E	258.01	266.92	N/A	N/A
2	Latchmere Ln S	53.04	53.04	N/A	N/A
2	Tudor Dr W	249.92	259.73	N/A	N/A
3	Latchmere Ln N	93.59	93.59	N/A	N/A
3	Tudor Dr E	315.99	326.91	N/A	N/A
3	Latchmere Ln S	64.96	64.96	N/A	N/A
3	Tudor Dr W	306.08	318.10	N/A	N/A

4	Latchmere Ln N	93.59	93.59	N/A	N/A
4	Tudor Dr E	315.99	326.91	N/A	N/A
4	Latchmere Ln S	64.96	64.96	N/A	N/A
4	Tudor Dr W	306.08	318.10	N/A	N/A
5	Latchmere Ln N	76.41	76.41	N/A	N/A
5	Tudor Dr E	258.01	266.92	N/A	N/A
5	Latchmere Ln S	53.04	53.04	N/A	N/A
5	Tudor Dr W	249.92	259.73	N/A	N/A
6	Latchmere Ln N	63.99	63.99	N/A	N/A
6	Tudor Dr E	216.07	223.53	N/A	N/A
6	Latchmere Ln S	44.42	44.42	N/A	N/A
6	Tudor Dr W	209.29	217.51	N/A	N/A

Turning Proportions

Turning Counts or Proportions (Veh/hr) - Latchmere Ln - tudor Dr (for whole period)

		To			
		1	2	3	4
From	1	0.000	42.000	28.000	15.000
	2	32.000	0.000	19.000	236.000
	3	14.000	19.000	0.000	26.000
	4	9.000	248.000	21.000	0.000

Turning Proportions (Veh) - Latchmere Ln - tudor Dr (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.49	0.33	0.18
	2	0.11	0.00	0.07	0.82
	3	0.24	0.32	0.00	0.44
	4	0.03	0.89	0.08	0.00

Vehicle Mix

Average PCU Per Vehicle - Latchmere Ln - tudor Dr (for whole period)

		To			
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.042
	3	1.000	1.000	1.000	1.000
	4	1.000	1.044	1.000	1.000

Heavy Vehicle Percentages - Latchmere Ln - tudor Dr (for whole period)

		To			
		1	2	3	4
From	1	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	4.200

	3	0.000	0.000	0.000	0.000
	4	0.000	4.400	0.000	0.000

Results

Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (Veh)	Max LOS	Total Demand (Veh/hr)	Total Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Queueing Total Delay (Veh-min)	Inclusive Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
Latchmere Ln N	0.13	0.09	0.14	A	78.00	117.00	10.08	0.09	0.11	10.09	0.09	0.549	927.080
Tudor Dr E	0.39	0.12	0.64	A	263.36	395.03	43.33	0.11	0.48	43.34	0.11	0.539	874.865
Latchmere Ln S	0.09	0.09	0.10	A	54.14	81.21	7.18	0.09	0.08	7.18	0.09	0.533	877.530
Tudor Dr W	0.42	0.14	0.71	A	255.10	382.65	47.93	0.13	0.53	47.94	0.13	0.514	798.362

Main Results

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

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
Latchmere Ln N	63.99	16.00	63.65	41.14	215.24	0.00	804.41	511.94	0.080	0.00	0.09
Tudor Dr E	216.07	54.02	214.65	231.00	47.89	0.00	820.71	687.18	0.263	0.00	0.35
Latchmere Ln S	44.42	11.10	44.17	50.87	211.67	0.00	760.83	474.97	0.058	0.00	0.06
Tudor Dr W	209.29	52.32	207.74	207.21	48.64	0.00	744.16	598.94	0.281	0.00	0.39

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

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
Latchmere Ln N	76.41	19.10	76.33	49.37	258.43	0.00	779.79	511.94	0.098	0.09	0.11
Tudor Dr E	258.01	64.50	257.59	277.30	57.45	0.00	815.73	687.18	0.316	0.35	0.46
Latchmere Ln S	53.04	13.26	52.98	61.04	254.01	0.00	737.49	474.97	0.072	0.06	0.08
Tudor Dr W	249.92	62.48	249.45	248.63	58.35	0.00	739.35	598.94	0.338	0.39	0.50

Main results: (17:45-18:00)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
Latchmere Ln N	93.59	23.40	93.45	60.43	316.28	0.00	746.82	511.94	0.125	0.11	0.14
Tudor Dr E	315.99	79.00	315.29	339.40	70.33	0.00	809.02	687.18	0.391	0.46	0.63
Latchmere Ln S	64.96	16.24	64.87	74.72	310.91	0.00	706.12	474.97	0.092	0.08	0.10
Tudor Dr W	306.08	76.52	305.28	304.34	71.44	0.00	732.88	598.94	0.418	0.50	0.71

Main results: (18:00-18:15)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
Latchmere Ln N	93.59	23.40	93.58	60.55	317.07	0.00	746.37	511.94	0.125	0.14	0.14
Tudor Dr E	315.99	79.00	315.98	340.20	70.46	0.00	808.95	687.18	0.391	0.63	0.64
Latchmere Ln S	64.96	16.24	64.96	74.87	311.57	0.00	705.76	474.97	0.092	0.10	0.10
Tudor Dr W	306.08	76.52	306.06	304.97	71.56	0.00	732.82	598.94	0.418	0.71	0.71

Main results: (18:15-18:30)

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Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
Latchmere Ln N	76.41	19.10	76.55	49.57	259.69	0.00	779.08	511.94	0.098	0.14	0.11
Tudor Dr E	258.01	64.50	258.68	278.58	57.66	0.00	815.62	687.18	0.316	0.64	0.47
Latchmere Ln S	53.04	13.26	53.13	61.28	255.07	0.00	736.91	474.97	0.072	0.10	0.08
Tudor Dr W	249.92	62.48	250.70	249.64	58.56	0.00	739.25	598.94	0.338	0.71	0.52

Main results: (18:30-18:45)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
Latchmere Ln N	63.99	16.00	64.08	41.49	217.31	0.00	803.23	511.94	0.080	0.11	0.09
Tudor Dr E	216.07	54.02	216.50	233.13	48.26	0.00	820.51	687.18	0.263	0.47	0.36
Latchmere Ln S	44.42	11.10	44.48	51.29	213.47	0.00	759.84	474.97	0.058	0.08	0.06
Tudor Dr W	209.29	52.32	209.78	208.93	49.02	0.00	743.97	598.94	0.281	0.52	0.40

Queueing Delay Results

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Latchmere Ln N	1.26	0.08	0.081	A	A
Tudor Dr E	5.14	0.34	0.099	A	A
Latchmere Ln S	0.90	0.06	0.084	A	A
Tudor Dr W	5.60	0.37	0.112	A	A

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Latchmere Ln N	1.59	0.11	0.085	A	A
Tudor Dr E	6.71	0.45	0.107	A	A
Latchmere Ln S	1.14	0.08	0.088	A	A
Tudor Dr W	7.37	0.49	0.122	A	A

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Latchmere Ln N	2.10	0.14	0.092	A	A
Tudor Dr E	9.22	0.61	0.121	A	A
Latchmere Ln S	1.48	0.10	0.094	A	A
Tudor Dr W	10.25	0.68	0.140	A	A

Queueing Delay results: (18:00-18:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Latchmere Ln N	2.14	0.14	0.092	A	A
Tudor Dr E	9.53	0.64	0.122	A	A
Latchmere Ln S	1.51	0.10	0.094	A	A
Tudor Dr W	10.64	0.71	0.141	A	A

Queueing Delay results: (18:15-18:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Latchmere Ln N	1.67	0.11	0.085	A	A
Tudor Dr E	7.20	0.48	0.108	A	A

Latchmere Ln S	1.19	0.08	0.088	A	A
Tudor Dr W	7.99	0.53	0.123	A	A

Queueing Delay results: (18:30-18:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Latchmere Ln N	1.33	0.09	0.081	A	A
Tudor Dr E	5.53	0.37	0.099	A	A
Latchmere Ln S	0.95	0.06	0.084	A	A
Tudor Dr W	6.08	0.41	0.112	A	A

Overview: Mini-roundabout Geometry

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Entry width (m)	Effective flare length (m)	Minimum approach road half-width (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island	Final Slope	Final Intercept (PCU/hr)
Latchmere Ln N	3.60	5.90	1.00	3.60	10.70	7.90	0.00		0.549	927.080
Tudor Dr E	3.10	4.70	3.00	3.10	8.20	5.20	0.00		0.539	874.865
Latchmere Ln S	3.30	4.30	1.00	3.30	10.60	8.40	0.00		0.533	877.530
Tudor Dr W	2.70	5.00	2.00	2.70	8.30	5.30	0.00		0.514	798.362

Overview: Time Segment Results

Time Segment Results

Time Segment	Arm	Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Pedestrian Demand (Ped/hr)	Start Queue (Veh)	End Queue (Veh)	Queueing Total Delay (Veh-min)	Geometric Total Delay (Veh-min)	Average Delay Per Arriving Vehicle (min)
1	Latchmere Ln N	63.99	804.41	0.080	0.00	0.00	0.09	1.26	(0.02)	0.081
1	Tudor Dr E	216.07	820.71	0.263	0.00	0.00	0.35	5.14	(0.02)	0.099
1	Latchmere Ln S	44.42	760.83	0.058	0.00	0.00	0.06	0.90	(0.02)	0.084
1	Tudor Dr W	209.29	744.16	0.281	0.00	0.00	0.39	5.60	(0.02)	0.112
2	Latchmere Ln N	76.41	779.79	0.098	0.00	0.09	0.11	1.59	(0.02)	0.085
2	Tudor Dr E	258.01	815.73	0.316	0.00	0.35	0.46	6.71	(0.02)	0.107
2	Latchmere Ln S	53.04	737.49	0.072	0.00	0.06	0.08	1.14	(0.02)	0.088
2	Tudor Dr W	249.92	739.35	0.338	0.00	0.39	0.50	7.37	(0.02)	0.122
3	Latchmere Ln N	93.59	746.82	0.125	0.00	0.11	0.14	2.10	(0.02)	0.092
3	Tudor Dr E	315.99	809.02	0.391	0.00	0.46	0.63	9.22	(0.02)	0.121

3	Latchmere Ln S	64.96	706.12	0.092	0.00	0.08	0.10	1.48	(0.02)	0.094
3	Tudor Dr W	306.08	732.88	0.418	0.00	0.50	0.71	10.25	(0.02)	0.140
4	Latchmere Ln N	93.59	746.37	0.125	0.00	0.14	0.14	2.14	(0.02)	0.092
4	Tudor Dr E	315.99	808.95	0.391	0.00	0.63	0.64	9.53	(0.02)	0.122
4	Latchmere Ln S	64.96	705.76	0.092	0.00	0.10	0.10	1.51	(0.02)	0.094
4	Tudor Dr W	306.08	732.82	0.418	0.00	0.71	0.71	10.64	(0.02)	0.141
5	Latchmere Ln N	76.41	779.08	0.098	0.00	0.14	0.11	1.67	(0.02)	0.085
5	Tudor Dr E	258.01	815.62	0.316	0.00	0.64	0.47	7.20	(0.02)	0.108
5	Latchmere Ln S	53.04	736.91	0.072	0.00	0.10	0.08	1.19	(0.02)	0.088
5	Tudor Dr W	249.92	739.25	0.338	0.00	0.71	0.52	7.99	(0.02)	0.123
6	Latchmere Ln N	63.99	803.23	0.080	0.00	0.11	0.09	1.33	(0.02)	0.081
6	Tudor Dr E	216.07	820.51	0.263	0.00	0.47	0.36	5.53	(0.02)	0.099
6	Latchmere Ln S	44.42	759.84	0.058	0.00	0.08	0.06	0.95	(0.02)	0.084
6	Tudor Dr W	209.29	743.97	0.281	0.00	0.52	0.40	6.08	(0.02)	0.112

A1 - Existing Layout - D3 - Total, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout		Yes		(D1)		100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type
Total, AM	Total	AM			Yes			07:30	09:00	90	15	ONE HOUR

Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	Latchmere Ln - tudor Dr	1,2,3,4	Mini-roundabout			

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

ID	Name	Description
1	Latchmere Ln N	
2	Tudor Dr E	
3	Latchmere Ln S	
4	Tudor Dr W	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Latchmere Ln N	0.00	99999.00		0.00
Tudor Dr E	0.00	99999.00		0.00
Latchmere Ln S	0.00	99999.00		0.00
Tudor Dr W	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
Latchmere Ln N	3.60	3.60	5.90	1.00	10.70	7.90	0.00	
Tudor Dr E	3.10	3.10	4.70	3.00	8.20	5.20	0.00	
Latchmere Ln S	3.30	3.30	4.30	1.00	10.60	8.40	0.00	
Tudor Dr W	2.70	2.70	5.00	2.00	8.30	5.30	0.00	

Pedestrian Crossings

Arm	Crossing Type
Latchmere Ln N	None
Tudor Dr E	None
Latchmere Ln S	None
Tudor Dr W	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Latchmere Ln N		((calculated))	((calculated))	0.549	927.080
Tudor Dr E		((calculated))	((calculated))	0.539	874.865
Latchmere Ln S		((calculated))	((calculated))	0.533	877.530
Tudor Dr W		((calculated))	((calculated))	0.514	798.362

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)	PHF
Latchmere Ln N	ONE HOUR	Yes	76.00	100.000	N/A
Tudor Dr E	ONE HOUR	Yes	358.00	100.000	N/A
Latchmere Ln S	ONE HOUR	Yes	53.00	100.000	N/A
Tudor Dr W	ONE HOUR	Yes	311.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (Veh/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (Veh/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	Latchmere Ln N	57.22	57.98	N/A	N/A
1	Tudor Dr E	269.52	283.06	N/A	N/A
1	Latchmere Ln S	39.90	39.90	N/A	N/A
1	Tudor Dr W	234.14	247.62	N/A	N/A
2	Latchmere Ln N	68.32	69.23	N/A	N/A
2	Tudor Dr E	321.83	338.00	N/A	N/A
2	Latchmere Ln S	47.65	47.65	N/A	N/A
2	Tudor Dr W	279.58	295.69	N/A	N/A
3	Latchmere Ln N	83.68	84.79	N/A	N/A
3	Tudor Dr E	394.17	413.96	N/A	N/A
3	Latchmere Ln S	58.35	58.35	N/A	N/A
3	Tudor Dr W	342.42	362.14	N/A	N/A
4	Latchmere Ln N	83.68	84.79	N/A	N/A
4	Tudor Dr E	394.17	413.96	N/A	N/A
4	Latchmere Ln S	58.35	58.35	N/A	N/A
4	Tudor Dr W	342.42	362.14	N/A	N/A
5	Latchmere Ln N	68.32	69.23	N/A	N/A
5	Tudor Dr E	321.83	338.00	N/A	N/A
5	Latchmere Ln S	47.65	47.65	N/A	N/A
5	Tudor Dr W	279.58	295.69	N/A	N/A
6	Latchmere Ln N	57.22	57.98	N/A	N/A
6	Tudor Dr E	269.52	283.06	N/A	N/A

6	Latchmere Ln S	39.90	39.90	N/A	N/A
6	Tudor Dr W	234.14	247.62	N/A	N/A

Turning Proportions

Turning Counts or Proportions (Veh/hr) - Latchmere Ln - tudor Dr (for whole period)

		To			
		1	2	3	4
From	1	0.000	45.000	21.000	10.000
	2	58.000	0.000	11.000	289.000
	3	25.000	18.000	0.000	10.000
	4	29.000	261.000	21.000	0.000

Turning Proportions (Veh) - Latchmere Ln - tudor Dr (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.59	0.28	0.13
	2	0.16	0.00	0.03	0.81
	3	0.47	0.34	0.00	0.19
	4	0.09	0.84	0.07	0.00

Vehicle Mix

Average PCU Per Vehicle - Latchmere Ln - tudor Dr (for whole period)

		To			
		1	2	3	4
From	1	1.000	1.000	1.048	1.000
	2	1.036	1.000	1.000	1.055
	3	1.000	1.000	1.000	1.000
	4	1.034	1.061	1.048	1.000

Heavy Vehicle Percentages - Latchmere Ln - tudor Dr (for whole period)

		To			
		1	2	3	4
From	1	0.000	0.000	4.800	0.000
	2	3.600	0.000	0.000	5.500
	3	0.000	0.000	0.000	0.000
	4	3.400	6.100	4.800	0.000

Results

Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (Veh)	Max LOS	Total Demand (Veh/hr)	Total Arrivals (Veh)	Total Queueing Delay	Average Queueing Delay	Rate Of Queueing Delay (Veh-	Inclusive Queueing Total Delay	Inclusive Queueing Average	Slope	Intercept (PCU/hr)
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							(Veh-min)	(min)	min/min)	(Veh-min)	Delay (min)		
Latchmere Ln N	0.12	0.09	0.13	A	69.74	104.61	9.16	0.09	0.10	9.16	0.09	0.549	927.080
Tudor Dr E	0.49	0.15	0.96	A	328.51	492.76	62.73	0.13	0.70	62.73	0.13	0.539	874.865
Latchmere Ln S	0.09	0.10	0.10	A	48.63	72.95	6.81	0.09	0.08	6.81	0.09	0.533	877.530
Tudor Dr W	0.49	0.17	0.95	B	285.38	428.07	61.70	0.14	0.69	61.71	0.14	0.514	798.362

Main Results

Main results: (07:30-07:45)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
Latchmere Ln N	57.22	14.30	56.91	83.71	224.04	0.00	786.68	561.04	0.073	0.00	0.08
Tudor Dr E	269.52	67.38	267.56	242.06	38.89	0.00	812.29	693.03	0.332	0.00	0.49
Latchmere Ln S	39.90	9.98	39.67	39.63	266.82	0.00	728.25	461.87	0.055	0.00	0.06
Tudor Dr W	234.14	58.53	232.22	230.96	75.53	0.00	717.42	516.26	0.326	0.00	0.48

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

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
Latchmere Ln N	68.32	17.08	68.24	100.49	269.09	0.00	760.89	561.02	0.090	0.08	0.10
Tudor Dr E	321.84	80.46	321.19	290.66	46.67	0.00	808.15	693.03	0.398	0.49	0.65
Latchmere Ln S	47.65	11.91	47.59	47.56	320.30	0.00	698.33	461.87	0.068	0.06	0.07
Tudor Dr W	279.58	69.90	278.94	277.24	90.64	0.00	709.92	516.26	0.394	0.48	0.64

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

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
Latchmere Ln N	83.68	20.92	83.55	122.97	329.19	0.00	726.48	561.02	0.115	0.10	0.13
Tudor Dr E	394.17	98.54	392.99	355.62	57.12	0.00	802.58	693.03	0.491	0.65	0.95
Latchmere Ln S	58.35	14.59	58.26	58.20	391.91	0.00	658.27	461.87	0.089	0.07	0.10
Tudor Dr W	342.42	85.60	341.23	339.23	110.94	0.00	699.86	516.26	0.489	0.64	0.94

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

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
Latchmere Ln N	83.68	20.92	83.68	123.30	330.27	0.00	725.86	561.02	0.115	0.13	0.13
Tudor Dr E	394.17	98.54	394.13	356.70	57.25	0.00	802.51	693.03	0.491	0.95	0.96
Latchmere Ln S	58.35	14.59	58.35	58.35	393.03	0.00	657.64	461.87	0.089	0.10	0.10
Tudor Dr W	342.42	85.60	342.38	340.19	111.20	0.00	699.73	516.26	0.489	0.94	0.95

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

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
Latchmere Ln N	68.32	17.08	68.44	101.02	270.77	0.00	759.93	561.02	0.090	0.13	0.10
Tudor Dr E	321.84	80.46	322.98	292.34	46.87	0.00	808.04	693.03	0.398	0.96	0.67
Latchmere Ln S	47.65	11.91	47.74	47.79	322.06	0.00	697.34	461.87	0.068	0.10	0.07
Tudor Dr W	279.58	69.90	280.74	278.74	91.06	0.00	709.72	516.26	0.394	0.95	0.66

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

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
Latchmere Ln N	68.32	17.08	68.44	101.02	270.77	0.00	759.93	561.02	0.090	0.13	0.10
Tudor Dr E	321.84	80.46	322.98	292.34	46.87	0.00	808.04	693.03	0.398	0.96	0.67
Latchmere Ln S	47.65	11.91	47.74	47.79	322.06	0.00	697.34	461.87	0.068	0.10	0.07
Tudor Dr W	279.58	69.90	280.74	278.74	91.06	0.00	709.72	516.26	0.394	0.95	0.66

Latchmere Ln N	57.22	14.30	57.30	84.52	226.49	0.00	785.28	561.04	0.073	0.10	0.08
Tudor Dr E	269.52	67.38	270.20	244.56	39.23	0.00	812.11	693.03	0.332	0.67	0.50
Latchmere Ln S	39.90	9.98	39.96	39.99	269.43	0.00	726.79	461.87	0.055	0.07	0.06
Tudor Dr W	234.14	58.53	234.81	233.20	76.20	0.00	717.09	516.26	0.327	0.66	0.49

Queueing Delay Results

Queueing Delay results: (07:30-07:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Latchmere Ln N	1.14	0.08	0.082	A	A
Tudor Dr E	7.09	0.47	0.110	A	A
Latchmere Ln S	0.84	0.06	0.087	A	A
Tudor Dr W	6.89	0.46	0.123	A	A

Queueing Delay results: (07:45-08:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Latchmere Ln N	1.45	0.10	0.087	A	A
Tudor Dr E	9.52	0.63	0.123	A	A
Latchmere Ln S	1.07	0.07	0.092	A	A
Tudor Dr W	9.31	0.62	0.139	A	A

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Latchmere Ln N	1.90	0.13	0.093	A	A
Tudor Dr E	13.68	0.91	0.146	A	A
Latchmere Ln S	1.42	0.09	0.100	A	A
Tudor Dr W	13.50	0.90	0.167	B	B

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Latchmere Ln N	1.94	0.13	0.093	A	A
Tudor Dr E	14.29	0.95	0.147	A	A
Latchmere Ln S	1.45	0.10	0.100	A	A
Tudor Dr W	14.16	0.94	0.168	B	B

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Latchmere Ln N	1.52	0.10	0.087	A	A
Tudor Dr E	10.40	0.69	0.124	A	A
Latchmere Ln S	1.13	0.08	0.092	A	A
Tudor Dr W	10.26	0.68	0.140	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Latchmere Ln N	1.21	0.08	0.082	A	A
Tudor Dr E	7.74	0.52	0.111	A	A
Latchmere Ln S	0.89	0.06	0.087	A	A
Tudor Dr W	7.58	0.51	0.125	A	A

Overview: Mini-roundabout Geometry

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Entry width (m)	Effective flare length (m)	Minimum approach road half-width (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island	Final Slope	Final Intercept (PCU/hr)
Latchmere Ln N	3.60	5.90	1.00	3.60	10.70	7.90	0.00		0.549	927.080
Tudor Dr E	3.10	4.70	3.00	3.10	8.20	5.20	0.00		0.539	874.865
Latchmere Ln S	3.30	4.30	1.00	3.30	10.60	8.40	0.00		0.533	877.530
Tudor Dr W	2.70	5.00	2.00	2.70	8.30	5.30	0.00		0.514	798.362

Overview: Time Segment Results

Time Segment Results

Time Segment	Arm	Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Pedestrian Demand (Ped/hr)	Start Queue (Veh)	End Queue (Veh)	Queueing Total Delay (Veh-min)	Geometric Total Delay (Veh-min)	Average Delay Per Arriving Vehicle (min)
1	Latchmere Ln N	57.22	786.68	0.073	0.00	0.00	0.08	1.14	(0.02)	0.082
1	Tudor Dr E	269.52	812.29	0.332	0.00	0.00	0.49	7.09	(0.02)	0.110
1	Latchmere Ln S	39.90	728.25	0.055	0.00	0.00	0.06	0.84	(0.02)	0.087
1	Tudor Dr W	234.14	717.42	0.326	0.00	0.00	0.48	6.89	(0.02)	0.123
2	Latchmere Ln N	68.32	760.89	0.090	0.00	0.08	0.10	1.45	(0.02)	0.087
2	Tudor Dr E	321.84	808.15	0.398	0.00	0.49	0.65	9.52	(0.02)	0.123
2	Latchmere Ln S	47.65	698.33	0.068	0.00	0.06	0.07	1.07	(0.02)	0.092
2	Tudor Dr W	279.58	709.92	0.394	0.00	0.48	0.64	9.31	(0.02)	0.139
3	Latchmere Ln N	83.68	726.48	0.115	0.00	0.10	0.13	1.90	(0.02)	0.093
3	Tudor Dr E	394.17	802.58	0.491	0.00	0.65	0.95	13.68	(0.02)	0.146
3	Latchmere Ln S	58.35	658.27	0.089	0.00	0.07	0.10	1.42	(0.02)	0.100
3	Tudor Dr W	342.42	699.86	0.489	0.00	0.64	0.94	13.50	(0.02)	0.167
4	Latchmere Ln N	83.68	725.86	0.115	0.00	0.13	0.13	1.94	(0.02)	0.093
4	Tudor Dr E	394.17	802.51	0.491	0.00	0.95	0.96	14.29	(0.02)	0.147
4	Latchmere Ln S	58.35	657.64	0.089	0.00	0.10	0.10	1.45	(0.02)	0.100
4	Tudor Dr W	342.42	699.73	0.489	0.00	0.94	0.95	14.16	(0.02)	0.168

5	Latchmere Ln N	68.32	759.93	0.090	0.00	0.13	0.10	1.52	(0.02)	0.087
5	Tudor Dr E	321.84	808.04	0.398	0.00	0.96	0.67	10.40	(0.02)	0.124
5	Latchmere Ln S	47.65	697.34	0.068	0.00	0.10	0.07	1.13	(0.02)	0.092
5	Tudor Dr W	279.58	709.72	0.394	0.00	0.95	0.66	10.26	(0.02)	0.140
6	Latchmere Ln N	57.22	785.28	0.073	0.00	0.10	0.08	1.21	(0.02)	0.082
6	Tudor Dr E	269.52	812.11	0.332	0.00	0.67	0.50	7.74	(0.02)	0.111
6	Latchmere Ln S	39.90	726.79	0.055	0.00	0.07	0.06	0.89	(0.02)	0.087
6	Tudor Dr W	234.14	717.09	0.327	0.00	0.66	0.49	7.58	(0.02)	0.125

A1 - Existing Layout - D4 - Total, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout		Yes		(D1)		100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type
Total, PM	Total	PM			Yes			17:15	18:45	90	15	ONE HOUR

Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	Latchmere Ln - tudor Dr	1,2,3,4	Mini-roundabout			

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

ID	Name	Description
1	Latchmere Ln N	
2	Tudor Dr E	
3	Latchmere Ln S	
4	Tudor Dr W	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Latchmere Ln N	0.00	99999.00		0.00
Tudor Dr E	0.00	99999.00		0.00
Latchmere Ln S	0.00	99999.00		0.00
Tudor Dr W	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
Latchmere Ln N	3.60	3.60	5.90	1.00	10.70	7.90	0.00	
Tudor Dr E	3.10	3.10	4.70	3.00	8.20	5.20	0.00	
Latchmere Ln S	3.30	3.30	4.30	1.00	10.60	8.40	0.00	
Tudor Dr W	2.70	2.70	5.00	2.00	8.30	5.30	0.00	

Pedestrian Crossings

Arm	Crossing Type
Latchmere Ln N	None
Tudor Dr E	None
Latchmere Ln S	None
Tudor Dr W	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Latchmere Ln N		((calculated))	((calculated))	0.549	927.080
Tudor Dr E		((calculated))	((calculated))	0.539	874.865
Latchmere Ln S		((calculated))	((calculated))	0.533	877.530
Tudor Dr W		((calculated))	((calculated))	0.514	798.362

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)	PHF
Latchmere Ln N	ONE HOUR	Yes	93.00	100.000	N/A
Tudor Dr E	ONE HOUR	Yes	305.00	100.000	N/A
Latchmere Ln S	ONE HOUR	Yes	59.00	100.000	N/A
Tudor Dr W	ONE HOUR	Yes	278.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (Veh/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (Veh/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	Latchmere Ln N	70.02	70.02	N/A	N/A
1	Tudor Dr E	229.62	237.08	N/A	N/A
1	Latchmere Ln S	44.42	44.42	N/A	N/A
1	Tudor Dr W	209.29	217.51	N/A	N/A
2	Latchmere Ln N	83.61	83.61	N/A	N/A
2	Tudor Dr E	274.19	283.10	N/A	N/A
2	Latchmere Ln S	53.04	53.04	N/A	N/A
2	Tudor Dr W	249.92	259.73	N/A	N/A
3	Latchmere Ln N	102.39	102.39	N/A	N/A
3	Tudor Dr E	335.81	346.72	N/A	N/A
3	Latchmere Ln S	64.96	64.96	N/A	N/A
3	Tudor Dr W	306.08	318.10	N/A	N/A
4	Latchmere Ln N	102.39	102.39	N/A	N/A
4	Tudor Dr E	335.81	346.72	N/A	N/A
4	Latchmere Ln S	64.96	64.96	N/A	N/A
4	Tudor Dr W	306.08	318.10	N/A	N/A
5	Latchmere Ln N	83.61	83.61	N/A	N/A
5	Tudor Dr E	274.19	283.10	N/A	N/A
5	Latchmere Ln S	53.04	53.04	N/A	N/A
5	Tudor Dr W	249.92	259.73	N/A	N/A
6	Latchmere Ln N	70.02	70.02	N/A	N/A
6	Tudor Dr E	229.62	237.08	N/A	N/A
6	Latchmere Ln S	44.42	44.42	N/A	N/A
6	Tudor Dr W	209.29	217.51	N/A	N/A

Turning Proportions

Turning Counts or Proportions (Veh/hr) - Latchmere Ln - tudor Dr (for whole period)

	To			
	1	2	3	4

From	1	0.000	50.000	28.000	15.000
	2	50.000	0.000	19.000	236.000
	3	14.000	19.000	0.000	26.000
	4	9.000	248.000	21.000	0.000

Turning Proportions (Veh) - Latchmere Ln - tudor Dr (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.54	0.30	0.16
	2	0.16	0.00	0.06	0.77
	3	0.24	0.32	0.00	0.44
	4	0.03	0.89	0.08	0.00

Vehicle Mix

Average PCU Per Vehicle - Latchmere Ln - tudor Dr (for whole period)

		To			
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.042
	3	1.000	1.000	1.000	1.000
	4	1.000	1.044	1.000	1.000

Heavy Vehicle Percentages - Latchmere Ln - tudor Dr (for whole period)

		To			
		1	2	3	4
From	1	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	4.200
	3	0.000	0.000	0.000	0.000
	4	0.000	4.400	0.000	0.000

Results

Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (Veh)	Max LOS	Total Demand (Veh/hr)	Total Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Queueing Total Delay (Veh-min)	Inclusive Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
Latchmere Ln N	0.14	0.09	0.16	A	85.34	128.01	11.16	0.09	0.12	11.16	0.09	0.549	927.080
Tudor Dr E	0.41	0.13	0.70	A	279.87	419.81	47.41	0.11	0.53	47.41	0.11	0.539	874.865
Latchmere Ln S	0.09	0.10	0.10	A	54.14	81.21	7.28	0.09	0.08	7.28	0.09	0.533	877.530
Tudor Dr W	0.42	0.14	0.73	A	255.10	382.65	48.81	0.13	0.54	48.82	0.13	0.514	798.362

Main Results

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

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)

Latchmere Ln N	70.02	17.50	69.64	54.60	215.22	0.00	804.42	522.37	0.087	0.00	0.09
Tudor Dr E	229.62	57.40	228.08	236.97	47.89	0.00	822.33	698.35	0.279	0.00	0.38
Latchmere Ln S	44.42	11.10	44.17	50.87	225.11	0.00	753.68	471.76	0.059	0.00	0.06
Tudor Dr W	209.29	52.32	207.72	207.18	62.10	0.00	737.50	581.10	0.284	0.00	0.39

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

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
Latchmere Ln N	83.61	20.90	83.51	65.52	258.42	0.00	779.80	522.37	0.107	0.09	0.12
Tudor Dr E	274.19	68.55	273.73	284.47	57.45	0.00	817.34	698.35	0.335	0.38	0.50
Latchmere Ln S	53.04	13.26	52.98	61.04	270.14	0.00	728.90	471.76	0.073	0.06	0.08
Tudor Dr W	249.92	62.48	249.43	248.62	74.50	0.00	731.36	581.10	0.342	0.39	0.51

Main results: (17:45-18:00)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
Latchmere Ln N	102.39	25.60	102.24	80.19	316.25	0.00	746.84	522.37	0.137	0.12	0.16
Tudor Dr E	335.81	83.95	335.02	348.16	70.33	0.00	810.62	698.35	0.414	0.50	0.70
Latchmere Ln S	64.96	16.24	64.86	74.71	330.64	0.00	695.62	471.76	0.093	0.08	0.10
Tudor Dr W	306.08	76.52	305.25	304.30	91.20	0.00	723.11	581.10	0.423	0.51	0.72

Main results: (18:00-18:15)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
Latchmere Ln N	102.39	25.60	102.39	80.37	317.07	0.00	746.37	522.37	0.137	0.16	0.16
Tudor Dr E	335.81	83.95	335.79	349.00	70.46	0.00	810.55	698.35	0.414	0.70	0.70
Latchmere Ln S	64.96	16.24	64.96	74.87	331.39	0.00	695.20	471.76	0.093	0.10	0.10
Tudor Dr W	306.08	76.52	306.06	304.97	91.38	0.00	723.02	581.10	0.423	0.72	0.73

Main results: (18:15-18:30)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
Latchmere Ln N	83.61	20.90	83.75	65.80	259.72	0.00	779.06	522.37	0.107	0.16	0.12
Tudor Dr E	274.19	68.55	274.96	285.81	57.67	0.00	817.23	698.35	0.336	0.70	0.51
Latchmere Ln S	53.04	13.26	53.13	61.28	271.34	0.00	728.24	471.76	0.073	0.10	0.08
Tudor Dr W	249.92	62.48	250.73	249.68	74.79	0.00	731.22	581.10	0.342	0.73	0.53

Main results: (18:30-18:45)

Arm	Demand (Veh/hr)	Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)
Latchmere Ln N	70.02	17.50	70.11	55.07	217.33	0.00	803.22	522.37	0.087	0.12	0.10
Tudor Dr E	229.62	57.40	230.10	239.17	48.27	0.00	822.13	698.35	0.279	0.51	0.39
Latchmere Ln S	44.42	11.10	44.48	51.29	227.07	0.00	752.60	471.76	0.059	0.08	0.06
Tudor Dr W	209.29	52.32	209.79	208.95	62.60	0.00	737.25	581.10	0.284	0.53	0.40

Queueing Delay Results

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Latchmere Ln N	1.39	0.09	0.082	A	A

Tudor Dr E	5.56	0.37	0.101	A	A
Latchmere Ln S	0.91	0.06	0.085	A	A
Tudor Dr W	5.67	0.38	0.113	A	A

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Latchmere Ln N	1.76	0.12	0.086	A	A
Tudor Dr E	7.31	0.49	0.110	A	A
Latchmere Ln S	1.15	0.08	0.089	A	A
Tudor Dr W	7.49	0.50	0.124	A	A

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Latchmere Ln N	2.32	0.15	0.093	A	A
Tudor Dr E	10.14	0.68	0.126	A	A
Latchmere Ln S	1.51	0.10	0.095	A	A
Tudor Dr W	10.47	0.70	0.143	A	A

Queueing Delay results: (18:00-18:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Latchmere Ln N	2.37	0.16	0.093	A	A
Tudor Dr E	10.51	0.70	0.126	A	A
Latchmere Ln S	1.54	0.10	0.095	A	A
Tudor Dr W	10.89	0.73	0.144	A	A

Queueing Delay results: (18:15-18:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Latchmere Ln N	1.85	0.12	0.086	A	A
Tudor Dr E	7.87	0.52	0.111	A	A
Latchmere Ln S	1.21	0.08	0.089	A	A
Tudor Dr W	8.13	0.54	0.125	A	A

Queueing Delay results: (18:30-18:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Latchmere Ln N	1.47	0.10	0.082	A	A
Tudor Dr E	6.01	0.40	0.101	A	A
Latchmere Ln S	0.96	0.06	0.085	A	A
Tudor Dr W	6.16	0.41	0.114	A	A

Overview: Mini-roundabout Geometry

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Entry width (m)	Effective flare length (m)	Minimum approach road half-width (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island	Final Slope	Final Intercept (PCU/hr)
Latchmere Ln N	3.60	5.90	1.00	3.60	10.70	7.90	0.00		0.549	927.080
Tudor Dr										

E	3.10	4.70	3.00	3.10	8.20	5.20	0.00		0.539	874.865
Latchmere Ln S	3.30	4.30	1.00	3.30	10.60	8.40	0.00		0.533	877.530
Tudor Dr W	2.70	5.00	2.00	2.70	8.30	5.30	0.00		0.514	798.362

Overview: Time Segment Results

Time Segment Results

Time Segment	Arm	Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Pedestrian Demand (Ped/hr)	Start Queue (Veh)	End Queue (Veh)	Queueing Total Delay (Veh-min)	Geometric Total Delay (Veh-min)	Average Delay Per Arriving Vehicle (min)
1	Latchmere Ln N	70.02	804.42	0.087	0.00	0.00	0.09	1.39	(0.02)	0.082
1	Tudor Dr E	229.62	822.33	0.279	0.00	0.00	0.38	5.56	(0.02)	0.101
1	Latchmere Ln S	44.42	753.68	0.059	0.00	0.00	0.06	0.91	(0.02)	0.085
1	Tudor Dr W	209.29	737.50	0.284	0.00	0.00	0.39	5.67	(0.02)	0.113
2	Latchmere Ln N	83.61	779.80	0.107	0.00	0.09	0.12	1.76	(0.02)	0.086
2	Tudor Dr E	274.19	817.34	0.335	0.00	0.38	0.50	7.31	(0.02)	0.110
2	Latchmere Ln S	53.04	728.90	0.073	0.00	0.06	0.08	1.15	(0.02)	0.089
2	Tudor Dr W	249.92	731.36	0.342	0.00	0.39	0.51	7.49	(0.02)	0.124
3	Latchmere Ln N	102.39	746.84	0.137	0.00	0.12	0.16	2.32	(0.02)	0.093
3	Tudor Dr E	335.81	810.62	0.414	0.00	0.50	0.70	10.14	(0.02)	0.126
3	Latchmere Ln S	64.96	695.62	0.093	0.00	0.08	0.10	1.51	(0.02)	0.095
3	Tudor Dr W	306.08	723.11	0.423	0.00	0.51	0.72	10.47	(0.02)	0.143
4	Latchmere Ln N	102.39	746.37	0.137	0.00	0.16	0.16	2.37	(0.02)	0.093
4	Tudor Dr E	335.81	810.55	0.414	0.00	0.70	0.70	10.51	(0.02)	0.126
4	Latchmere Ln S	64.96	695.20	0.093	0.00	0.10	0.10	1.54	(0.02)	0.095
4	Tudor Dr W	306.08	723.02	0.423	0.00	0.72	0.73	10.89	(0.02)	0.144
5	Latchmere Ln N	83.61	779.06	0.107	0.00	0.16	0.12	1.85	(0.02)	0.086
5	Tudor Dr E	274.19	817.23	0.336	0.00	0.70	0.51	7.87	(0.02)	0.111
5	Latchmere Ln S	53.04	728.24	0.073	0.00	0.10	0.08	1.21	(0.02)	0.089
5	Tudor Dr W	249.92	731.22	0.342	0.00	0.73	0.53	8.13	(0.02)	0.125
6	Latchmere Ln N	70.02	803.22	0.087	0.00	0.12	0.10	1.47	(0.02)	0.082
	Tudor Dr									

6	E	229.62	822.13	0.279	0.00	0.51	0.39	6.01	(0.02)	0.101
6	Latchmere Ln S	44.42	752.60	0.059	0.00	0.08	0.06	0.96	(0.02)	0.085
6	Tudor Dr W	209.29	737.25	0.284	0.00	0.53	0.40	6.16	(0.02)	0.114



the journey is the reward