PROPOSED LIDL FOODSTORE

Imperial House, Victoria Road, South Ruislip

Transport Assessment
On behalf of Lidl UK GmbH

October 2014

Gateway TSP

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1 INTRODUCTION

1.1 Gateway TSP is instructed by Lidl UK GmbH to prepare this Transport Assessment (TA) in respect of a planning application to demolish the former Imperial House car dealership and construct a new Lidl foodstore at the site on Victoria Road, South Ruislip, within the London Borough of Hillingdon (LBH). This report considers the highways and transport related matters in respect of the proposed development and should be read in conjunction with the Draft Travel Plan (DTP), also prepared by Gateway TSP.

1.2 The application site fronts onto Victoria Road to the north and is located west of the Victoria Road/Stonefield Way priority controlled junction. The site is located amongst a number of established retail units located along the southern side of Victoria Road, including Wickes, Halfords and Furniture Village to the east and Kwik-Fit and a Honda car dealership to the west. To the north of Victoria Road, the area is predominantly residential in use.

1.3 An unnamed service road which runs parallel to Victoria Road provides frontage access to the western part of the application site that is occupied by the derelict Imperial House. The remainder of the application site is occupied by a Bensons for Beds retail unit and a now vacant Comet retail unit, both of which have vehicular access provided from Stonefield Way.

Planning History

1.4 The former Comet unit and the Bensons for Beds unit benefit from Open A1 Use Class totalling 1,915 sqm net sales area and Gateway TSP has previously advised Lidl on highways matters in relation to their potential occupation of the Comet and Bensons for Beds unit. Lidl subsequently gained planning consent in April 2013 for the conversion of a short section of Stonefield Way back to two-way operation to facilitate customer vehicle movements to and from the unit (London Borough of Hillingdon planning application reference 41266/APP/2012/2939).

1.5 Lidl are now seeking planning permission for the demolition of Imperial House and the construction of a Lidl foodstore comprising 2,046 sqm gross external area (1,286 sqm net sales area), transferring the Open A1 use of the existing retail units in part to their proposed site at Imperial House. The vacant Comet and Bensons for Beds units would remain, albeit subject to Condition restricting the sales of goods to A1 Comparison goods. Therefore the net increase in retail floorspace would be 1,286 square metres of A1 Comparison goods use.

1.6 Vehicular access to the site would be from Stonefield Way, with the short section to Victoria Road converted to two-way operation. The existing vehicular access onto the unnamed parallel service road would be opened up directly onto Victoria Road to provide a direct service vehicle and customer access onto Victoria Road. Car parking is proposed at 104 spaces, formalising and extending the existing car parking facilities at the site in line with current parking standards.

1.7 A previous planning application on the site (reference 5039/APP/2014/143) on behalf of Lidl for a similar development scheme, but without the direct vehicular access onto Victoria Road, was refused by LBH on 11 April 2014. There were two highways-related reasons for refusal attached to the decision, namely:

> *"2. In the absence of a robust Transport Assessment, the application fails to demonstrate that the proposed development would not result in detrimental traffic impacts or increased congestion on nearby highways. The proposal is therefore contrary to Policy 6.3 of the London Plan (July 2011) and Policies AM2 and AM7 of the Hillingdon Local Plan: Part Two – Saved UDP Policies (November 2012).*
>
> *"3. The proposed delivery and servicing arrangements would result in vehicular conflict with other users of the site, that would give rise to conditions prejudicial to highway safety. The proposal is therefore contrary to Policy AM7 of the Hillingdon Local Plan: Part Two – Saved UDP Policies (November 2012)."*

1.8 A meeting was held with LBH on 19 August 2014 in order to seek clarity on the reasons for refusal and to agree the level of additional information required to accompany a future planning application.

1.9 With regards to highways matters, it was agreed that the Transport Assessment should include:

- Consideration of three transport impact scenarios, namely:
  a) transfer of open A1 to new Lidl unit and change of use of Comet/Bensons for Beds unit to A1 Comparison goods;
  b) the 'fall back" permitted position to convert the vacant Comet/Bensons for Beds unit to a Lidl store and leave the Imperial House building as existing; and
  c) transfer of open A1 to a mainstream open A1 retailer (e.g. Tesco), as a sensitivity test;

- Consideration of distribution by trip type, i.e. linked trips being more likely to/from the town centre and primary trips more likely to/from the surrounding residential catchment areas;
- Reference to the Transport Assessments prepared for the recent ARLA planning applications where appropriate;
- Provision of diagram illustrating measurement of geometric parameters used in the PICADY models; and
- Investigation of alternative service vehicle access via Victoria Road.

1.10 The remainder of this Transport Assessment is therefore set out as follows:

i) Section 2 provides an overview of the relevant national, regional and local transport policies against which the development proposals will be assessed;

ii) Section 3 describes the site location and the surrounding highway network conditions;

iii) Section 4 describes the accessibility of the development site by non-car modes of travel;

iv) Section 5 explains the development proposals for the site, including servicing arrangements;

v) Section 6 identifies the trip attraction associated with the existing Open A1 Use of the site and assignment onto the local highway network;

vi) Section 7 considers the trip rates and movements associated with the proposed A1 Comparison goods floorspace proposed at the site;

vii) Section 8 analyses the effect of the development on the operation of the local highway network; and

viii) Section 9 provides the summary and conclusions to the report.

2 TRANSPORT POLICY

2.1 Statutory transport policy and guidance relevant to the proposed development is found within the following documents:

i) The National Planning Policy Framework;

ii) The London Plan, Spatial Development Strategy for Greater London; and

iii) The London Borough of Hillingdon Local Plan.

National Policy

2.2 The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these are expected to be applied.

2.3 The NPPF presumes in favour of sustainable development and is a material consideration in planning decisions. Twelve core land-use planning principles are put forward to underpin both plan-making and decision-taking, one of which is to *"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."*

2.4 Paragraph 32 addresses the relationship between development and sustainable transport as follows:

> *"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."*

2.5 Paragraph 35 suggests that developments should be located and designed where practical to, among other things, give priority to pedestrian and cycle movements, have access to high quality public transport facilities, create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians and consider the needs of people with disabilities by all modes of transport.

2.6 It is noted at paragraph 36 that travel plans will provide a key tool in facilitating these objectives and all developments that generate significant amounts of movement should provide one.

2.7 Paragraph 37 encourages planning policies that aim for a balance of land uses within their area so that people can be encouraged to minimise journey lengths for employment, shopping, leisure, education and other activities.

2.8 Off-street parking provision is referred to by paragraph 39, which says that in setting local parking standards for development, local planning authorities should take into account accessibility; the type, mix and use of the development; the availability of and opportunities for public transport; local car ownership levels; and an overall need to reduce the use of high-emission vehicles.

Regional Policy

2.9 The London Plan, Spatial Development Strategy for Greater London (July 2011) sets out an integrated economic, environmental, transport and social framework for the development of London over the next 20-25 years.

2.10 One of the Mayor's six objectives for London is:

> *"A city where it is easy, safe and convenient for everyone to access jobs, opportunities and facilities with an efficient and effective transport system which actively encourages more walking and cycling, makes better use of the Thames and supports delivery of all the objectives of this Plan."*

2.11 The transport aspects of the London Plan, relevant to the proposed development, are discussed in the following paragraphs.

2.12 Policy 6.1 establishes the Mayor's strategic approach to transport. Of relevance it states that the Mayor will encourage the closer integration of transport and development by:

> *"a. encouraging patterns and nodes of development that reduce the need to travel, especially by car;*
>
> *b. seeking to improve the capacity and accessibility of public transport, walking and cycling;*
>
> *g. supporting measures that encourage shifts to more sustainable modes and appropriate demand management; and*
>
> *i. promoting walking by ensuring an improved urban realm."*

2.13 In relation to walking, Policy 6.10 states that in respect of planning decisions, developments should:

"Development proposals should ensure high quality pedestrian environments and emphasis the quality of the pedestrian and street space."

Local Policy

2.14 Local policy is contained within the London Borough of Hillingdon Local Plan: Part 1 - Strategic Policies, approved for adoption in November 2012. Previously known as the Core Strategy, the document sets out the key elements of the planning framework for the borough over the next 15 years.

2.15 The document contains a series of core policies and it is through the delivery and monitoring of these policies that sustainable use of land and sustainable methods of travel will be encouraged.

2.16 Section 9 of the document presents the Borough's policies on Transport and Infrastructure, which ultimately promote sustainable forms of transport with an overall aim of improving quality of life and reducing private car dependency.

2.17 The aim of the transport policies is to provide a sustainable transport system that addresses the length of journeys, reduces car dependency, supports the economy, encourages active travel and improves quality of life. The policies also aim to reduce congestion and smooth traffic flow.

2.18 Policy T1 (Accessible Local Destinations) states that:

"The Council will steer development to the most appropriate locations in order to reduce their impact on the transport network. All development should encourage access by sustainable modes and include good cycling and walking provision".

2.19 The London Borough of Hillingdon has an adopted Unitary Development Plan (UDP, September 1998) which from September 2007, specified policies have been retained. LB Hillingdon received a direction issued by the Secretary of State agreeing those policies that have been saved.

2.20 Appendix 5 of the Hillingdon Local Plan: Part 1 – Strategic Policies contains the UDP saved policies, of which the following 'Accessibility and Movement' policies are of relevance to the development proposals:-

2.21 Policy AM2 states:

> *"All proposals for development will be assessed against:*
>
> *Their contribution to traffic generation and their impact on congestion, particularly on the principal road network as defined in paragraph 14.14 of the plan, and*
>
> *The present and potential availability of public transport, and its capacity to meet increased demand."*

2.22 Policy AM7 includes:

> *"The local planning authority will consider whether the traffic generated by proposed development is acceptable in terms of the capacity and functions of existing and committed principal roads only, and will wholly discount any potential which local distributor and access roads may have for carrying through traffic."*

2.23 Policy AM9 advises that the Council will require development proposals to include clearly visible, well-designed, covered, secure and accessible bicycle parking for users of the development and, where appropriate, for the general public.

2.24 AM14 states:

> *"New development will only be permitted where it is in accordance with the Council's adopted car parking standards as set out in Annex 1."*

2.25 Annex 1 states that London Plan parking standards are to be used unless a specific LB Hillingdon standard is stated. For A1 retail, no LB Hillingdon parking standard is stated, consequently London Plan standards apply.

2.26 Policy AM15 states that reserved parking spaces for disabled users shall be conveniently located within car parks for new developments.

Overview

2.27 National, regional and local level transport policy clearly encourages new development to be located in areas that are readily accessible on foot, cycle and by public transport, making use of available sites within built up locations.

2.28 The proposed Lidl food store is policy compliant principally because its location is within an established retail and employment area and is consequently accessible by non-car modes of travel, served by frequent bus services and within walking distance of residential areas. The development therefore offers a realistic choice of access by non-car modes of travel.

3 SITE LOCATION AND SURROUNDING HIGHWAY NETWORK CONDITIONS

Site Location and Use

3.1 The site is located in South Ruislip, within the London Borough of Hillingdon. The strategic site location is shown in **Figure 1**.

3.2 The application site consists of the Imperial House car dealership, which has been vacant since 2006, as well as a Bensons for Beds retail unit and a now vacant Comet retail store.

3.3 The application site has vehicular access in two locations. Imperial House is served from a gated access off the service road that runs parallel to Victoria Road which would have provided access to the car showroom forecourt and visitor parking for approximately 24 cars. The Bensons for Beds and vacant Comet unit are accessed from Stonefield Way. Presently there is no vehicular link between Imperial House and Stonefield Way.

3.4 To the south of Victoria Road, the area is largely commercial, with premises including Wickes, Halfords and Furniture Village to the east and Kwik-Fit and a Honda car dealership to the west. Along the northern side of Victoria Road, the area is predominantly residential in use.

3.5 The site in relation to the local area is shown in **Figure 2**.

Surrounding Highway Network

3.6 The site is located south-west of the priority-controlled junction of Victoria Road/Stonefield Way. The junction has a ghosted right-turn lane from Victoria Road, with Stonefield Way being one-way southbound only.

3.7 Victoria Road, which borders the northern edge of the site, is a local distributor road that is single carriageway, lit and subject to a 30mph speed limit. Standard width footways are located along both side of the carriageway, separated by grass verges. From the site, Victoria Road routes eastbound where it forms a roundabout junction with Field End Road some 250 metres from the site.

3.8 Further afield to the west, Victoria Road provides a link, via Station Approach, to the A4180 West End Road and A40 Western Avenue.

3.9 Stonefield Way, which borders the eastern edge of the site, presently operates one-way in a clockwise direction from its eastern junction with Victoria Road to its western junction with Victoria Road. Stonefield Way is single carriageway, lit, with footways along both sides of the carriageway and serves a substantial number of commercial uses.

3.10 Due to the one-way operation of Stonefield Way, car-borne customers of Bensons for Beds and Comet are presently required to travel almost the entire length of Stonefield Way upon departure.

Baseline Transport Data

3.11 In association with previous planning applications (reference 41266/APP/2012/2939 and 5039/APP/2014/143) Gateway TSP commissioned manual classified turning counts at the Victoria Road/Stonefield Way junction and the Stonefield Way site access during the weekday evening peak period on Friday 4th May 2012, and the weekday morning and Saturday peak periods on Friday 8th and Saturday 9th November 2013.

3.12 From the survey data, the weekday peak hours of 08:00hrs to 09:00hrs and 17:00hrs to 18:00hrs have been identified, with the Saturday peak hour of 14:00hrs to 15:00hrs identified.

3.13 The peak hour vehicle movements for the weekday morning and evening peak hours are shown on **Figures 3.1** and **3.2** respectively whilst the Saturday peak hour is shown on **Figure 3.3**.

3.14 The flows presented in Figure 3.2 for the weekday evening peak represent a period where the Comet retail unit was still operational, albeit that the Comet unit may have been experiencing trading difficulties and consequently the flows may not be representative of normal trading. Consequently, the traffic flows observed to be entering and leaving the application site can be assumed to be in relation to the Bensons for Beds retail unit.

3.15 During the time period in 2013 when the weekday morning and Saturday flows were collected, the Comet store was vacant and therefore all vehicle movements surveyed at the site access can be regarded as being made in conjunction with the existing Bensons for Beds retail unit.

Permitted Development

3.16 Lidl has planning permission to occupy the former Comet retail unit which has Open A1 Use consent. As part of this consent, Lidl would convert the short section of Stonefield Way back to two-way operation, as granted by the London Borough of Hillingdon (planning reference 41266/APP/2012/2939).

3.17 For the purposes of this assessment, the base highway network will therefore be assumed to have the two-way Stonefield Way access in place. **Figures 3.4-3.6** show the effect on surveyed traffic flows of allowing two-way traffic from the site access across each of the peak hours assessed.

3.18 In February 2014, Bensons for Beds was granted planning consent (reference 64229/APP/2013/2501) to add a 280 square metre mezzanine floor to their existing unit. This has since been constructed and now forms part of their sales area.

Committed Developments

3.19 At the request of the LBH Highways Officer, reference has been made to the recent 'ARLA' planning applications (planning references 66819/APP/2013/1467 and 66819/APP/2014/1600). The ARLA site comprises the former ARLA foods dairy located northwest of South Ruislip station and accessed via Victoria Road. The development proposals include an Asda foodstore, cinema, retail and residential uses with localised highways works.

3.20 The 2013 application was refused in February 2014, which included a refusal on highways grounds as failing *'to demonstrate the proposed development would not result in detrimental traffic impacts'*. Upon further review it is understood that the transport analysis included consideration of the permitted occupation of the Comet store and a foodstore. The applicants stated that due to the size of the unit, the store would be more likely to cater for top-up or convenience shopping. Therefore, only 30% of traffic flows were assigned as new onto the network, with trip rates based on a recent Sainsbury's application. The highway authority concluded that, on balance, the proposed traffic generation was acceptable.

3.21 In addition, the traffic modelling contained within the submission suggested that the overall ARLA development proposals would result in a reduction in traffic flows along Victoria Road and Field End Road. The Highways Officer considered there to be no impact on this part of the network as a result of the ARLA development, although it is noted that the reason for refusal included reference to the traffic models not being validated.

3.22 At the time of writing, the 2014 application is due to be determined and we are not aware of any consultation comments that may have been made by the Highways Officer. Upon review of the submission documentation it appears that the reuse of the Comet store unit is no longer considered within the Transport Assessment, however it is included within the accompanying VISSIM model. The conclusions of the VISSIM modelling report are therefore considered of relevance. These state that the model has been validated to a high standard and the development proposals will have a minimal negative impact upon the performance of the local highway network, with journey times actually reducing along the majority of routes.

Road Safety

3.23 Accident record data for the five-year period up to 31st May 2014 has been obtained from Transport for London (TfL). The accident records refer only to road traffic accidents that resulted in personal injury (PIA). The PIA study area includes Victoria Road, between the approaches to the two priority junctions with Stonefield Way, and Stonefield Way itself.

3.24 During the three-year period, one accidents occurred within the study area, this occurred at the western junction of Stonefield Way with Victoria Road. A slight injury accident occurred at the junction whereby a car turned into the path of an oncoming motorcyclist who was overtaking slowing traffic. A full summary of the accident description and causation factors is provided at **Appendix A**.

3.25 It may therefore reasonably be concluded that the most recently available three year record of personal injury accidents does not indicate any inherent road safety problems on the network surrounding the site.

4 SITE ACCESSIBILITY BY NON-CAR MODES

4.1 This section considers the location of the application site with respect to its accessibility to the surrounding non-car transport network.

Accessibility on Foot

4.2 There is a network of interconnected pedestrian footways that link the site to the surrounding commercial and residential areas. Local to the application site, there are standard width pedestrian footways provided alongside Victoria Road, with a zebra crossing provided directly opposite the site. Some 80 metres to the west of the site, a pedestrian refuge with dropped kerbs and tactile paving is provided across Victoria Road which would further facilitate crossing movements to the site from the west.

Accessibility by Cycle

4.3 There are no National Cycle Routes within the proximity of the site. With reference to the TfL 'Local Cycling Guide 3', there is a network of 'quieter roads' that are recommended for cycling within the area of the site. An extract of TfL's Local Cycling Guide is contained within **Appendix B**.

Accessibility by Bus

4.4 The application site benefits from a bus stop located directly in front of the site on Victoria Road. This serves westbound services towards South Ruislip. For eastbound services along Victoria Road, the nearest bus stop to the site is a 110 metre walk, via the zebra crossing opposite the site on Victoria Road.

4.5 There are additional bus stops located along Field End Road to the east of the site, with the northbound and southbound services accessible from bus stops located an approximate 350 metre walk distance from the application site.

4.6 A summary of the frequent bus services available at the local stops identified above is summarised in Table 4.1.

Service	TfL Stop Reference (walk distance)	Route Towards	Frequency (minutes)		
			Week	Sat	Sun
114	N (20m)	Ruislip Station	9-12	10-12	11-12
	K (110m)	Mill Hill Broadway Station	10-12	9-12	11-12
282	T (330m)	Mount Vernon Hospital	10-13	12-13	15
	X (370m)	Ealing Hospital	10-13	10-13	15

Table 4.1: Summary of Bus Services Available

4.7 The TfL bus spider map of routes in this area is included at **Appendix C**.

4.8 It can be seen that there are two regular bus services which stop within the vicinity of the application site. All stops are located within the recommended walking distance of 400 metres as outlined within the Institution of Highways and Transportation's (IHT) "Guidelines for Providing Public Transport in Developments" document. They are also well within the recognised walking distance to a bus stop of 640 metres as used within the methodology for calculating a site's PTAL (Public Transport Accessibility Level).

4.9 With both bus services operating at a frequency of one bus approximately every ten minutes, it can be concluded that there are no demonstrable barriers to bus travel to and from the application site.

Accessibility by Rail

4.10 South Ruislip Station is located an approximate 1.2 kilometre walk to the west of the site and serves both mainline overground and London underground rail services.

Overground Rail

4.11 South Ruislip station is situated on the Chiltern Railways mainline with services running between Gerrard's Cross and London Marylebone. The approximate journey time to Gerrard's Cross, is 19 minutes, and the journey time to London Marylebone is 23 minutes. Daily services in each direction generally run every 30 minutes, operating between 06:00hrs and 00:40hrs.

Underground Rail

4.12 South Ruislip station is located on the Central Line, with services running towards West Ruislip to the north and Epping to the east, via London Liverpool Street.

4.13 The frequencies of the trains vary depending on the day of the week and the direction of travel. Generally, 9 services per hour run from the station in each direction Monday to Saturday and 6 services per hour on Sunday. The times of the first and last trains towards Epping on Monday to Saturday are 05:27hrs and 23:57hrs, and on Sunday are 06:45hrs and 23:37hrs. The times of the first and last trains towards West Ruislip on Monday to Saturday are 06:09hrs and 01:05hrs, and on Sunday are 07:22hrs and 00:23hrs.

Public Transport Accessibility Level (PTAL)

4.14 Public Transport Accessibility Levels (PTALs) are a theoretical measure of the accessibility of a given point to the public transport network, taking into account walk access time and service availability. This method is a way of measuring the density of the public transport network at a particular point.

4.15 Walk times are calculated from the specified point of interest to all public transport access points including bus stops and stations within pre-defined catchments. The PTAL incorporates a measure of service frequency to calculate an average wait time based on the frequency of service at each public transport access point. A reliability factor is added and the total access time is calculated. A measure known as an Equivalent Doorstep Frequency (EDF) is then derived for each point. These are summed for all routes within the catchment and the PTALs for the different modes are then added together to give a single value. The PTAL is categorised in six levels, 1 to 6 where 6 represents a high level of accessibility and 1 a low level of accessibility.

4.16 The PTAL rating of the site is 2, which represents a 'poor' level of accessibility by public transport modes based on the PTAL calculations. The outputs of the PTAL calculator are included at **Appendix D**.

4.17 It should be noted that PTAL is a theoretical tool for assessing the 'accessibility' of a site by public transport. Each site and certain land uses may not be located in highly accessible areas based on the PTAL methodology, but may still be considered accessible to such modes. For example, surveys at existing Lidl foodstores within London indicate that the primary mode of travel to stores on public transport are made by bus with a negligible travel by tube or train. Therefore proximity to bus stops is a key factor in determining accessibility to Lidl foodstores.

Summary

4.18 In summary, this section has provided evidence to indicate that although the application site scores a PTAL rating of 2, the site is accessible by a range of transport modes, with regular bus services passing the application site. This is partly by virtue of the site being located within an established retail and commercial area.

5 PROPOSED DEVELOPMENT

5.1 Lidl UK GmbH has acquired the former car dealership known as Imperial House and proposes to demolish the unit and replace it with a new 1,286 sqm sales area Lidl foodstore. In doing so, they would transfer a portion (1,286 sqm) of the 1,915 square metre Open A1 permitted (as detailed in the Certificate of Lawfulness) use of Comet/Bensons for Beds Open A1 Use to their new foodstore on the site of the former Imperial House.

5.2 The remaining 629 sqm of Open A1 (convenience) use class would remain for what is at present the vacant Comet unit. The remaining floorspace available within the Comet and Bensons for Beds units would be the subject of a Condition to restrict the sale of goods to A1 Comparison goods totalling an additional 1,286 square metres of sales floor area. It is this additional comparison goods floor area which represents the net increase in floorspace at the site and the basis for assessment in this Transport Assessment.

5.3 The effect of the development proposals is therefore a change in the overall net sales floor space as detailed in Table 5.1 below.

Use Class	Baseline Permitted Uses (net sales)	Proposed Uses (net sales)	Net Change (net sales)
Open A1 (Convenience)	1,915 sqm	1,286 sqm Lidl and 349 sqm remaining part of former Comet 280 sqm Bensons for Beds Mezzanine	No Change
A1 (Comparison Only)	-	422 sqm Bensons for Beds, 521 sqm remainder of Comet unit and 343 sqm back of house	+1,286 sqm
Sui Generis	2,150 sqm	-	-2,150 sqm

Table 5.1: Baseline and Proposed Application Site Use Comparison

5.4 It can be seen from the above table that the net effect of the development proposals is an additional 1,286 sqm of comparison goods. There is also a net reduction of 2,150 square metres of Sui Generis (former car dealership) but as this has been vacant since 2006, the baseline position within the Transport Assessment has not been adjusted to account for this, which will result in a robust assessment.

5.5 In the event that Lidl were unsuccessful in obtaining planning permission for a new foodstore at Imperial House, their "fall back" position is to amalgamate the vacant Comet and Bensons for Beds units into one Lidl foodstore, which can be undertaken without the need for further planning permissions to be obtained.

5.6 For the purpose of this Transport Assessment the units have been assumed to remain in a three unit layout as shown on the Architect's site layout plan included at **Appendix E**.

Access Arrangements

5.7 The development proposals would include the construction of the previously permitted alteration to Stonefield Way, converting a section of Stonefield Way back into a two-way operation between the site access and Victoria Road, as granted by the London Borough of Hillingdon (planning reference 41266/APP/2012/2939). The permitted junction arrangement plan is included at **Appendix F**.

5.8 In addition, the existing access to Imperial House from the service road will be opened up onto Victoria Road to enable direct access for service vehicles and customers. A ghosted right turn lane will be incorporated along Victoria Road utilising the existing hatching along the centre of the carriageway. The access will be two-way with a mountable shoulder provided to facilitate movements by delivery vehicles turning left out of the site. This arrangement was agreed at the Lidl store at Cowley Road, Uxbridge. The existing access road would be stopped up, with the redundant carriageway converted to verge. The proposed junction arrangement is included at **Appendix G**, with the associated swept path analysis contained at **Appendix H**.

5.9 To facilitate pedestrian movements, a direct access between the Lidl store frontage and Victoria Road will be provided through the car park and across the redundant service road.

Car Parking

5.10 As stated in paragraph 2.25, the London Plan car parking standards apply for A1 retail use within LBH.

5.11 The London Plan sets out the preferred range of car parking provision for a food supermarket up to 4,000 sqm gross floor area, for sites with a PTAL rating between 4 and 2, as 1 space per 30-20 sqm GFA. Therefore, the proposed Lidl foodstore has a gross external floor area of 2,046 square metres and could provide between 68 and 102 spaces on the site.

5.12 For non-food retail uses with a PTAL rating between 4 and 2, a maximum car park provision of 1 space per 50-30 sqm is stated. Therefore the proposed comparison goods units totalling 1,286 square metres could provide a maximum parking provision of between 25 and 43 spaces.

5.13 Table 5.2 below summarises the findings of the London Plan car parking standards for the application site:

Use	London Plan Car Parking Standard (for PTAL 4 to 2)	Maximum Car Parking Provision
Food Supermarket (2,046 sqm)	1 space per 30 – 20 sqm	68 - 102 spaces
Non-Food Retail (1,286 sqm)	1 space per 50 - 30 sqm	25 - 43 spaces
TOTAL		**93 - 145 spaces**

Table 5.2: Car Parking Standards

5.14 The development proposals include 104 car parking spaces, including four parent & child spaces and 9 spaces for blue badge holders (9% of the total provision). The proposed car parking provision therefore complies with the London Plan car parking standards.

Electric Vehicle Parking Spaces

5.15 London Plan standards state that new retail developments should provide 10% active electric vehicle parking provision, with 10% passive provision safeguarded for future use.

5.16 The Transport for London 'Land for Industry and Transport' Supplementary Planning Guidance document adopted in 2012 provides a guide for developers in terms of electric vehicle parking provision. It is recognised that there are three types of charging infrastructure; standards (full charge in 5-7 hours), fast (full charge in 2-3 hours) and rapid (full charge in circa 30 minutes) although the latter is still under development and is not generally expected at new developments in London.

5.17 A typical Lidl foodstore has a relatively short dwell time compared to other retail uses and demonstration projects used in the local authority area (e.g. Ikea Croydon). Even combined with a linked trip to the non-food retail units on the site is unlikely to result in a dwell time into hours, which is required to make a significant impact to the charge of electric vehicles.

5.18 The development is proposed with four dual use active electric vehicle parking spaces, which will be the subject of monitoring as part of the management of the car park operation.

Cycle and Powered Two-Wheeler Parking

5.19 Minimum cycle parking standards for new developments are contained within Table 6.3 of 'The London Plan Revised Early Minor Alterations' published in October 2013. A summary of the applicable cycle parking standards and associated provision for the application site units is summarised in Table 5.3 below.

Use	London Plan Cycle Parking Standard (for out of centre)	Minimum Cycle Parking Provision
Food Supermarket (2,046 sqm)	1 space per 350 sqm for staff and visitors	6
Non-Food Retail (1,286 sqm)	1 space per 500 sqm for staff and visitors	3
TOTAL		**9**

Table 5.3: Minimum Cycle Parking Standards

5.20 At present there is no cycle parking provision at the site for any of the retail units. As part of the development proposals, cycle parking will be provided in accordance with cycle parking standards for all of the uses of the site. A sheltered cycle parking area will be provided at the frontage of the Lidl store in the form of five Sheffield stands providing space for 10 cycles. This represents a net improvement to the existing situation and is provided at a level above the minimum cycle parking policy across the whole site.

5.21 Within the car park, an additional three parking spaces will be provided for powered two-wheelers.

Deliveries

5.22 Deliveries to the foodstore will be made principally from the regional distribution centre in Enfield and will be routed along the strategic highway network to and from the proposed foodstore.

5.23 During pre-application discussions with LBH, the Highways Officer elaborated upon reason for refusal number 3 (see paragraph 1.4) which relates to service vehicle access and concerns over Lidl service vehicles routing past the entrances to the adjacent retail units. Various potential alternative service access arrangements have since been explored, following which the most feasible solution has been found to be the opening of an additional access on Victoria Road which now forms part of the application proposals.

5.24 All HGVs arriving and departing will be advised by a sign within the site to utilise the access onto Victoria Road to avoid manoeuvring through the site from Stonefield Way. Appendix H contains swept path plots demonstrating that the proposed arrangements will operate satisfactorily.

5.25 Lidl's policy is to limit deliveries to one or two vehicles per store each day, waste material arising from the store being taken away by the same vehicles. Servicing is usually conducted outside network and trading peak hours. A Service Management Plan for the foodstore is included at **Appendix I**.

Travel Plan

5.26 Lidl UK acknowledges the importance of encouraging sustainable travel behaviour and the influence Travel Plans can have in helping to reduce reliance on the car. The Travel Plan for this site will take reasonable steps to engage both staff and customers in the concepts of Smarter Choices. At this stage, a Draft Travel Plan has been prepared (also by Gateway TSP) and accompanies the planning application as a separate document.

5.27 The Draft Travel Plan provides details of a range of initiatives to reduce the need for travel and to encourage the use of sustainable modes. It comprises a package of site-specific measures aimed at improving the available choices and to raise awareness of those choices.

5.28 It is anticipated that, over time, the Travel Plan will help to minimise the number of car-borne trips to and from the application site and thus reduce peak period traffic flows on the local highway network.

6 OPEN A1 USE TRIP ATTRACTION AND ASSIGNMENT

6.1 This section considers the vehicle trip attraction and traffic assignment of the permitted Open A1 Use of the site on the local highway network assuming that such a use was operated as a Lidl foodstore for the identified weekday morning (08:00hrs – 09:00hrs) weekday evening (17:00hrs to 18:00hrs) and Saturday peak hours (14:00hrs – 15:00hrs).

6.2 This is considered to be an appropriate assessment since the site currently has a Certificate of Lawfulness permitting 1,915 sqm sales floor area of Open A1 Use on this site. It is therefore possible that a food retailer could occupy the units for a foodstore in the future without the need for planning permission, which would represent the most intensive use of the site in terms of trip attraction.

6.3 Lidl could occupy the existing units in one amalgamated store, but the layout is sub-optimal for their trading purposes and therefore this application seeks permission to occupy the neighbouring site with a new custom specification foodstore. Given that Lidl are intending to occupy the site, the permitted use trip attraction will be based on multi-modal surveys undertaken at a number of Lidl stores located across London.

6.4 Lidl foodstores vary slightly in size, PTAL and parking provision from one site to the next, therefore taking a number of stores surveyed recently and identifying an average trip rate is considered the most suitable approach. Surveys have been undertaken at Lidl stores in Barking, Clapham, Brixton and Cricklewood between 2010 and 2013. Multi-modal surveys are available for the Barking, Clapham and Brixton Lidl stores and the results are summarised below.

Mode of Travel	Lidl Store Modal-Split Survey Results (Friday)			
	Barking	Brixton	Clapham	Average
Walk	34%	39%	32%	35%
Bus	13%	21%	18%	17%
Cycle	3%	4%	2%	3%
Car Driver (to the site)	43%	30%	43%	39%
Car Driver Off-site e.g. linked trip)	4%	5%	3%	4%
Train	1%	0%	2%	1%
Tube	1%	0%	0%	0%
Other	1%	1%	1%	1%
TOTAL	**100%**	**100%**	**100%**	**100%**

Table 6.1: Friday Multi-Modal Trip Proportions to Lidl Foodstores

Mode of Travel	Lidl Store Modal-Split Survey Results (Saturday)			
	Barking	Brixton	Clapham	Average
Walk	38%	33%	27%	32%
Bus	13%	20%	14%	16%
Cycle	1%	3%	2%	2%
Car Driver (to the site)	44%	33%	51%	43%
Car Driver (Off-site e.g. linked trip)	3%	7%	3%	4%
Train	2%	1%	2%	2%
Tube	0%	1%	0%	0%
Other	0%	2%	1%	1%
TOTAL	**100%**	**100%**	**100%**	**100%**

Table 6.2: Saturday Multi-Modal Trip Proportions to Lidl Foodstores

6.5 The PTAL of a Lidl foodstore should not be the sole factor in considering its accessibility, since only a small minority of customers are likely to travel by tube or train to access the store. This is demonstrated in both Tables 6.1 and 6.2, since Barking has a PTAL of 6, Brixton a PTAL of 5 and Clapham a PTAL of 6b, however regardless of proximity to train or tube the major modes of travel to the foodstores are by car, bus or on foot.

6.6 Within the DfT Guidance on Transport Assessment, 'Comparable Accessibility' is defined as "*sites with similar levels of public transport, cycling and pedestrian accessibility".* It is on this basis that all of the sampled sites are accessible by bus, on foot and by cycle and are therefore considered to represent suitable sites upon which to base this information.

6.7 Train and tube journeys account for up to 3% of journeys made to a Lidl foodstore. The method for calculating PTAL takes account of all public transport modes with a single PTAL value provided as a summary of all the different modes available. This means that in the calculation process a site could be well located for access to bus stops and regular bus services, but if it is located some distance from rail, tube or tram services it receives a lower PTAL calculation.

6.8 PTAL calculations provide an overview of general public transport accessibility, but specific development proposals such as a discount foodstore should be considered in context. In this instance, clearly access to bus services is paramount above other public transport modes regardless of proximity to rail stations.

6.9 It should also be noted that the Lidl foodstore in Brixton is generally excluded from the overall trip generation calculation since it has a smaller sales floor area and a 29 space car park, which represents parking restraint for a typical Lidl foodstore. However, the modal split survey results indicate that when restraint is in place people who still choose to visit the store (instead of travelling further to a store with more parking) travel by alternative modes. The public transport patronage for bus, train and tube is higher at the Brixton foodstore (PTAL 5) than the Clapham or Barking stores which have greater access to public transport facilities (both PTAL 6 locations).

Vehicular Trip Assessment

6.10 It is important to note that Lidl is identified as the end occupier for the development and the proposed site/store layout is designed to Lidl's specification. It is widely accepted good practice to tailor a Transport Assessment if an end user is identified, since this is likely to provide a more detailed and representative assessment of the potential impacts of such a development, rather than a generic use class assessment.

6.11 Indeed the TfL 'Transport Assessment Best Practice' guidance document supports this approach in stating:

> *"if observed survey data is available either by monitoring the existing site or by surveying similar developments, this should be obtained as this will give the most up to date information".*

6.12 On this basis, surveys of existing Lidl stores within the London area (undertaken in the last 4 years) located at Barking, Clapham and Cricklewood are used to determine the typical vehicular trip rate profile across both peak periods.

6.13 The vehicular trip rates for the Lidl foodstores have been calculated as an average of the trip rates identified at the three surveyed store locations. For reference, each of the store surveys and the average trip rates identified are provided in **Appendix J**. This average has then been applied to the 1,915 square metre sales floor area permitted across the site and is summarised in Table 6.3 for the identified weekday peak hours.

	Trip Rate (per 100sqm)			Trips (vehicles)		
	Arr	Dep	Two-way	Arr	Dep	Two-way
Weekday AM (08:00-09:00)	1.99	1.15	3.15	38	22	60
Weekday PM (17:00-18:00)	4.77	5.17	9.94	91	99	190
Saturday (14:00-15:00)	6.61	6.21	12.82	127	119	246

Table 6.3: Lidl Discount Foodstore Vehicle Trip Rates and Associated Trips

6.14 Using an average of the modal split surveyed travel modes between the Clapham, Barking and Brixton stores and the vehicle trips identified in Table 6.3, a break-down of the peak hour trips to the store by mode is provided in Table 6.4.

Mode of Travel	Weekday Modal Split	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Peak Hour		
		Arr	Dep	Arr	Dep	Modal Split	Arr	Dep
Car Driver	39%	38	22	91	99	43%	127	119
Pedestrian	35%	34	20	82	89	32%	94	89
Bus	17%	16	10	40	43	16%	47	44
Car Driver (off-site)	4%	4	2	9	10	4%	12	11
Cycle	3%	3	2	7	8	2%	6	6
Train	1%	1	1	2	3	2%	6	6
Tube	0%	0	0	0	0	0%	0	0
Other	1%	1	1	2	3	1%	3	3
TOTAL	**100%**	**97**	**56**	**233**	**254**	**100%**	**295**	**277**

Table 6.4: Peak Hour South Ruislip Foodstore Multi-Modal Trips

6.15 Table 6.4 provides an indication of the Lidl foodstore multi-modal trip attraction potential across all three of the peak hour survey periods.

Foodstore Trip Types

6.16 Vehicular trips to a foodstore can be divided into two groups:

- Primary trips – trips made where the only purpose is shopping; or
- Linked trips – where shopping is not the main purpose of trip e.g. a trip to the foodstore forms part of the commute to/from work.

6.17 The two groups of trips can be sub-divided into four categories:

- Primary New Trips – a single purpose trip that is new to highway network during the assessment period. If there is flexibility over when and where a shopping trip is undertaken, it is unlikely a person would chose to make such a trip during peak highway network periods;
- Primary Transferred Trips – a single purpose trip that previously used an alternative retail foodstore and has transferred to the new foodstore;
- Linked Pass-by Trips – a multi-purpose trip that passes the new foodstore without making a network diversion; and
- Linked Diverted Trips – a multi-purpose trip that has made a network diversion to visit the new foodstore.

Primary Transferred Trips

6.18 Research undertaken by Napier University (MacIver & Dickinson, 1992) before and after the opening of four new food supermarkets concluded that the split between primary trips and linked trips is approximately 60:40 during the Friday evening peak period and 70:30 during a Saturday peak.

6.19 It is therefore considered reasonable to use these trip type proportions as a basis for the assessment of the Lidl foodstore proposals. For the purposes of this assessment, it is assumed that there will be 60% primary trips during the Friday evening peak and 70% during the Saturday peak. Given that the Friday morning peak is less critical in terms of the level of trips associated with the Lidl foodstore, it is also assumed that the level of primary trips will be at the lower end of the range i.e. 60%.

New Trips

6.20 The vast majority of vehicular trips to a new retail facility are not 'new' to the road network as a new food retail facility will lead primarily to a change in journey rather than new journeys. It is commonly accepted that there are few, if any, new trips on the local road network to a foodstore during a peak period.

6.21 To ensure a robust assessment is undertaken of the potential of a new retail foodstore, an allowance has been made for potential new trips. For the purposes of analysis, 10% of foodstore trips have been presumed to be new to the network. This is higher than is commonly accepted and is considered to represent a worst case scenario.

Linked Pass-by/Diverted Trips

6.22 The percentage of linked pass-by and diverted trips depends upon many factors and these include the following:

- Location of the development (i.e. town centre, edge of centre, out of centre etc.);
- Competition – the extent to which nearby stores compete;
- Size of store;
- Accessibility; and
- Parking.

6.23 The 95/2 TRICS Research Report 'Pass-by and Diverted Traffic' (JMP Consultants Limited) concluded that pass-by and diverted trips generally make up 30 – 40% of trips associated with a foodstore during the peak periods. These proportions are typically towards the upper end of the range during weekday peaks due to commuting. In the absence of weekday morning specific surveys, the morning proportions make use of the evening peak hour research.

6.24 Based on the location of the site adjacent to a number of retail units, the following proportions have been used for assessment purposes:

- Friday morning peak – 20% pass-by/ 20% diverted;
- Friday evening peak – 20% pass-by/ 20% diverted; and
- Saturday peak – 15% pass-by/ 15% diverted.

Summary of Foodstore Trip Types

6.25 Suitable trip types have been identified for the foodstore in terms of primary new, primary transferred, linked pass-by and linked diverted trips. The trip type proportions and resultant level of trips for each type are summarised in Table 6.5 below.

Trip Type	Friday Morning and Evening Peak Hours	Saturday Peak Hour
Primary New Trips	10%	10%
Primary Transferred Trips	50%	60%
Linked Pass-by Trips	20%	15%
Linked Diverted Trips	20%	15%

Table 6.5: Trip Type Proportions

6.26 The trip type proportions have been applied to the identified peak hour vehicle movements (set out in Table 6.3), with the resultant level of trips for each type summarised in Table 6.6 below.

Trip Type	Weekday AM Peak		Weekday PM Peak		Saturday Peak	
	Arr	Dep	Arr	Dep	Arr	Dep
Primary New Trips	4	2	9	10	13	12
Primary Transferred Trips	19	11	46	50	76	71
Linked Pass-by Trips	8	4	18	20	19	18
Linked Diverted Trips	8	4	18	20	19	18
TOTAL	**38**	**22**	**91**	**100**	**127**	**119**

Table 6.6: Trip Type Proportions and Associated Vehicle Movements for Peak Hour Assessments

Open A1 Trip Distribution and Assignment

6.27 The site is well located to provide access to a number of surrounding residential areas and on this basis, potential customers could access the site from any of the routes available. Primary trips tend to be based upon observed traffic movements as a starting point, which is largely balanced at 50% arriving/departing from the west and 50% arriving/departing from the east along Victoria Road.

6.28 An allowance for pass-by trips has been made assuming that drivers are already on Victoria Road passing the site, distributed in accordance with existing network distribution. The diverted trips have been assigned to/from the east since the nearest strategic route to the site from which traffic would divert is Field End Road. This traffic is effectively treated as new to the highway network under consideration.

6.29 The primary transferred trips from alternative foodstores are also considered new to the highway network. This is considered a robust approach because presently people would make a longer journey to another store and could therefore be passing through the study network as part of their journey in any event.

6.30 The LBH Highway Officer has advised that the ARLA Transport Assessment be reviewed and commented upon where necessary. In respect of the trip distribution and assignment, all primary trips are largely based upon a gravity model prepared for a previous Sainsbury's Ruislip planning application. Whilst the catchment area is not appropriate for the location of the Lidl development, the resulting proportion split onto Victoria Road is 49% west / 51% east. Linked pass-by trips are based upon the existing local network distribution, as is typically the case. Linked diverted trips have been diverted from the nearest major route, which in the case of the ARLA development is Long Drive to the east of the site.

6.31 The trip distribution and assignment methodology for the Lidl development is therefore considered to be largely identical to the analysis undertaken for the recent ARLA Transport Assessments.

Permitted Open A1 Access Arrangements

6.32 The permitted Open A1 scenario would involve the proposed Lidl foodstore occupying the existing retail units and making use of the consented two-way access arrangement on Stonefield Way to the junction with Victoria Road.

6.33 The resulting weekday AM, PM and Saturday peak hour vehicle movements for the permitted Open A1 Use are shown in **Figures 6.1-6.3**.

Proposed Open A1 Access Arrangements

6.34 If the new Lidl foodstore and the transfer of the Open A1 Use is permitted, then the new Lidl foodstore will be served by a dedicated access from the site onto Victoria Road.

6.35 It should be noted that as a consequence of the application site having two vehicular accesses, localised traffic assignment has been undertaken applying the following assumptions:

- Lidl traffic arriving from west uses Victoria Road access;
- Lidl traffic arriving from east is split 50%/50% between the Stonefield Way and Victoria Road accesses; and
- All departing Lidl traffic uses the Victoria Road access.

6.36 Whilst the level of Open A1 vehicle movements attracted to the site will remain the same as the permitted situation, the distributions will alter as a result of the access arrangements. The revised distribution of the Open A1 Use is shown for the identified weekday AM and PM peak hours and the Saturday peak hour in **Figures 6.4-6.6**.

Mainstream Foodstore Operator (Open A1) Use Vehicular Trip Assessment

6.37 It is important to emphasise that Lidl is identified as the end occupier for the development and the proposed site/store layout is designed to Lidl's specification. It is widely accepted good practice to tailor a Transport Assessment if an end user is identified, since this is likely to provide a more detailed and representative assessment of the potential impacts of such a development. Consequently, the analysis contained within this Transport Assessment has been based on trip rates derived from discount foodstores, rather than a generic open A1 use class assessment.

6.38 Notwithstanding this, the Highway Officer has requested that consideration be given to the potential traffic effects of the proposed open A1 unit becoming occupied by a mainstream open A1 retailer like Tesco as a sensitivity test.

6.39 The discount foodstore occupies a niche within the grocery market, with the Competition Commission ('The Supply of Groceries in the UK Market Investigation', 2008) recognising this form of 'Limited Assortment Discounter' as a separate classification to other grocery retailer. It is noted that discount foodstores offer significantly fewer products compared to large grocery retailers of a similar size. This in part indicates the differences between the different foodstore types and shows that generic foodstore trips cannot be used to justify a proposal such as a Lidl.

6.40 Notwithstanding the above, in order to address the open A1 use of the site, a TRICS assessment has been undertaken of the '01 A – Food Superstore' category. Sites within the TRICS database have gross floor areas ranging between 800 – 10,725 square metres (excluding sites with petrol filling stations). South Ruislip could provide 1,970 square metres of Open A1 retail floor space, but in order to try to provide an accurate TRICS assessment an upper limit of 4,000 square metres retail floor space has been applied.

6.41 Table 6.7 provides a summary of the foodstore survey sites available within the TRICS database under this category for both the weekday and weekend periods for all sites located in England (including Greater London).

TRICS Reference and Foodstore Location	Location	Parking Provision	Gross Floor Area	Survey Day
CA-01-A-01 Sainsbury's Cambridge	Town Centre	0	2210	Weekday
CB-01-A-07 Somerfield Carlisle	Suburban	88	1700	Weekday
CN-01-A-03 Sainsbury's Bloomsbury	Town Centre	0	1710	Weekday
CN-01-A-04 Sainsbury's Holborn	Town Centre	0	1890	Weekday
KI-01-A-01 Sainsbury's Kingston	Town Centre	0	2650	Weekday
SF-01-A-02 Sainsbury's Ipswich	Town Centre	0	3280	Weekday
DH-01-A-02 Sainsbury's Durham	Suburban	40	800	Saturday
LC-01-A-18 Somerfield Garstang	Edge Town	132	1800	Sunday
NY-01-A-05 Sainsbury's N. Allerton	Suburban	226	2300	Saturday

Table 6.7: Summary of TRICS Foodstore Surveyed Sites

6.42 Clearly the list of available foodstore sites from this category in TRICS suggests that mainstream food retailers do not operate within the Lidl discount foodstore model. The smaller retail floor areas represent the convenience sector in town centre locations with no associated parking. There are four sites that do provide parking which are located within suburban and edge of town centre locations, however the parking levels are not particularly comparable with the development proposal. Of these four sites, only one has weekday survey data and this is not a mainstream foodstore operator.

6.43 Upon further interrogation of the TRICS database it is evident that only once selection criteria of 6,000sqm – 10,000sqm is applied does a meaningful number of surveyed stores appear (predominantly Asda and Sainsbury's stores). However the resulting average store size is far in excess of 1,970sqm and therefore any derived trip rates could not be deemed appropriate or reliable.

6.44 There is therefore an inadequate sample size to derive meaningful trip rates for the purposes of a sensitivity test. Furthermore, if trip rates were identified from the above sites, the trip rates derived would not accurately represent either the location of the development, the level of parking proposed or the proposed size of the development. The data could not therefore be relied upon to provide a robust assessment of potential impacts on the surrounding highway network. On this basis, assessing generic A1 foodstore on sites brought forward for planning application purposes by Lidl is not considered appropriate.

7 PROPOSED SITE USE TRIP ATTRACTION - NON-FOOD RETAIL

7.1 This section considers the trip attraction potential of the A1 Comparison goods floorspace that is proposed for the site in the existing Comet and Bensons for Beds retail units once the Open A1 permitted use is transferred to the proposed new Lidl foodstore.

7.2 In order to determine the trip attraction of the remaining retail units, which will include 1,286 sqm of A1 comparison goods uses, trip rates have been derived from the proprietary TRICS database using the category 'Other Individual Non-Food Superstores' for all sites within England including Greater London.

7.3 The TRICS output is contained in full within **Appendix K**, with the resulting peak hour vehicular trips summarised in Table 7.1 below.

	Trip Rate (per 100sqm)			Trips (vehicles)		
	Arr	Dep	Two-way	Arr	Dep	Two-way
Weekday AM (08:00-09:00)	0.366	0.193	0.559	5	2	7
Weekday PM (17:00-18:00)	1.402	1.472	2.875	18	19	37
Saturday (14:00-15:00)	3.763	3.523	7.286	48	45	93

Table 7.1: Proposed 1,635sqm Non-Food Retail Use Vehicle Trips

Mode	AM Peak Hour (08:00 – 09:00)	PM Peak Hour (17:00 – 18:00)	Saturday Peak (14:00 – 15:00)
Pedestrians	2	2	3
Cyclists	0	0	0
Public Transport Users	0	0	0
Coach passengers	0	0	0
Vehicle occupants	6	30	191
Taxi	0	0	0
TOTAL	**8**	**32**	**194**

Table 7.2: Non-Food Retail Multi-Modal Two-way Trips (TRICS)

7.4 Tables 7.1 and 7.2 indicate that the non-food retail use will have a peak attraction on a Saturday with 93 vehicle movements with a high proportion of vehicle occupants.

Non-Food Retail Trip Distribution and Assignment

7.5 The proposed non-food retail use would be implemented alongside a new Lidl foodstore on the site of Imperial House with a second access to the site provided from the car park onto Victoria Road. Access to the non-food retail unit will be possible from either of the site accesses and therefore for the purposes of assessment the following has been assumed:

- Non-food retail traffic to/from the west uses the Victoria Road access; and
- Non-food retail traffic to/from the east uses the Stonefield Way access.

7.6 It should be noted that for the non-food retail unit, all traffic has been assumed to be new to the local road network and is distributed based on observed turning proportions and then assigned on the basis of the revised access arrangements as identified above.

7.7 The vehicle movements for each peak hour assessment associated with the proposed A1 Comparison goods additional floorspace are provided in **Figures 7.1 – 7.3**.

Total Site Vehicle Flows

7.8 The future scenario incorporating the proposed Lidl foodstore at Imperial House and the additional A1 Comparison goods floorspace in the existing Comet and Bensons for Beds units is summarised in terms of the total vehicle movements attracted to the site in each of the peak periods assessed in **Figures 7.4-7.6**.

8 DEVELOPMENT TRAFFIC IMPACT

8.1 This section describes the assessment of the net impact of the development proposals on the highway network during the identified weekday AM peak hour (08:00hrs to 09:00hrs), PM peak hour (17:00hrs to 18:00hrs) and Saturday peak hour (14:00hrs to 15:00hrs).

Base Traffic Flows

8.2 In accordance with the Department for Transport's (DfT) 'Guidance on Transport Assessment', the impact of the proposed development is to be tested in the opening year (assumed to be 2016).

8.3 Traffic growth rates for the future assessment year of 2016 have been derived by reference to the National Road Traffic Forecasts (NRTF) and the Trip End Model Presentation Program (TEMPRO/6.2). The associated growth factors are provided in Table 8.1 below.

Time Period	Weekday AM Growth Factor	Weekday PM Growth Factor	Saturday Growth Factor
2012 – 2016	N/A	1.0323	N/A
2013 – 2016	1.0263	N/A	1.0306

Table 8.1: TEMPRO/6.2 Growth Factors for 2016 Assessment Year

8.4 The part of the application site that was formerly the Imperial House car dealership is now vacant and consequently no vehicle movements associated with its use would have been recorded in the baseline traffic surveys. However, at the time of its operation, the car showroom was accessible only from the service road parallel to Victoria Road. Consequently any peak hour movements on the network under consideration would only have occurred along Victoria Road and not in or out of Stonefield Way.

8.5 The number of movements in association with the Imperial House car dealership, once distributed on Victoria Road during the peak hours would not be statistically significant. Consequently, for the purposes of the baseline assessments, no adjustment to traffic flows has been made to allow for the extant use.

8.6 **Figures 8.1 – 8.3** contain the future year network flows for 2016 for the weekday morning, evening and Saturday peak hours respectively. It should be noted that the growth factors are applied to network traffic movements only, and not to development movements.

8.7 The 2016 baseline with the permitted Open A1 use (assuming the Lidl foodstore occupied the existing retail units and making use of the two-way access arrangement at Stonefield Way) for the weekday morning, evening and Saturday peak hours respectively and are shown in **Figures 8.4 – 8.6**.

8.8 The proposed development scenario includes an additional 1,286 square metres of A1 Comparison goods retail floorspace alongside the permitted Open A1 (assumed to be Lidl foodstore) vehicle movements. The permitted and proposed vehicle movements (identified in Figures 7.4-7.6) are added to the 2016 baseline highway network flows for the peak hours assessed in **Figures 8.7 – 8.9**.

Junction Capacity

8.9 In order to determine the effects of the development traffic on the proposed access arrangements, the permitted Victoria Road/Stonefield Way two-way priority junction arrangement and proposed site access onto Victoria Road have both been modelled using PICADY/5 for the anticipated opening year (2016). The Victoria Road/Stonefield Way junction has been modelled with the addition of either the proposed development traffic flows or permitted development traffic flows for comparison purposes as requested by the LBH Highways Officer.

Victoria Road/Stonefield Way Two-Way Priority Junction

8.10 The 2016 weekday morning, evening and Saturday peak period junction assessments are summarised in Tables 8.2 - 8.4 respectively, both with the proposed and permitted developments. The full PICADY/5 output files for the junction are included at **Appendix L,** along with a plan illustrating the geometric parameters of the junction.

Arm	2016 AM Base plus Permitted Lidl Foodstore (08:00-09:00)		2016 AM Base plus Lidl Foodstore and Proposed Non-Food Retail Development (08:00-09:00)	
	Maximum RFC	Maximum Queue (veh)	Maximum RFC	Maximum Queue (veh)
Stonefield Way	0.067	0.07	0.006	0.01
Victoria Road (W)	0.224	0.29	0.185	0.23

Table 8.2: Summary of PICADY/5 Output – 2016 AM Peak Summary

Arm	2016 PM Base plus Permitted Lidl Foodstore (17:00-18:00)		2016 PM Base plus Lidl Foodstore and Proposed Non-Food Retail Development (17:00-18:00)	
	Maximum RFC	Maximum Queue (veh)	Maximum RFC	Maximum Queue (veh)
Stonefield Way	0.417	0.69	0.073	0.08
Victoria Road (W)	0.217	0.28	0.127	0.14

Table 8.3: Summary of PICADY/5 Output – 2016 PM Peak Summary

Arm	2016 Sat Base plus Permitted Lidl Foodstore (14:00-15:00)		2016 Sat Base plus Lidl Foodstore and Proposed Non-Food Retail Development (14:00-15:00)	
	Maximum RFC	Maximum Queue (veh)	Maximum RFC	Maximum Queue (veh)
Stonefield Way	0.742	2.04	0.224	0.28
Victoria Road (W)	0.196	0.24	0.048	0.05

Table 8.4: Summary of PICADY/5 Output – 2016 Saturday Peak Summary

8.11 The weekday and Saturday peak hour PICADY/5 capacity assessments indicate that the priority junction would work well within its theoretical parameters across all of the periods assessed. The permitted development assessments generally show higher RFC values and end of period vehicle queues as a consequence of all development traffic flows utilising this sole access.

8.12 As the proposed development site is located within an area of existing commercial uses fronting Victoria Road, the Saturday peak hour assessment represents the period whereby passing flows along Victoria Road are the highest surveyed flows of the three peak periods assessed.

Lidl Access onto Victoria Road

8.13 The 2016 weekday morning, evening and Saturday peak period junction assessments for the proposed new access are summarised in Tables 8.5 – 8.6 respectively. The full PICADY/5 output files for the junction are included at **Appendix M**.

Arm	2016 AM Base plus Proposed Development (08:00-09:00)	
	Maximum RFC	Maximum Queue (veh)
Lidl Access	0.066	0
Victoria Road (W)	0.037	0

Table 8.5: Summary of PICADY/5 Output – 2016 AM Peak Summary

Arm	2016 PM Base plus Proposed Development (17:00-18:00)	
	Maximum RFC	Maximum Queue (veh)
Lidl Access	0.412	0.67
Victoria Road (W)	0.101	0.11

Table 8.6: Summary of PICADY/5 Output – 2016 PM Peak Summary

Arm	2016 Sat Base plus Proposed Development (14:00-15:00)	
	Maximum RFC	Maximum Queue (veh)
Lidl Access	0.736	2.45
Victoria Road (W)	0.189	0.23

Table 8.7: Summary of PICADY/5 Output – 2016 Saturday Peak Summary

The weekday and Saturday peak hour PICADY/5 capacity assessments indicate that the proposed priority junction has been designed to work well within its theoretical parameters across all of the periods assessed, with minimal maximum queue lengths occurring on the proposed Victoria Road right turn lane.

9 SUMMARY AND CONCLUSIONS

9.1 Gateway TSP has been instructed by Lidl UK GmbH to prepare this Transport Assessment (TA) in respect of a planning application to demolish the former Imperial House car dealership and construct a new Lidl foodstore at the site on Victoria Road, South Ruislip, within the London Borough of Hillingdon.

9.2 This report considers the highways and transport related matters in respect of the proposed development and should be read in conjunction with the Draft Travel Plan (DTP), also prepared by Gateway TSP.

9.3 Section 2 of this Transport Assessment provides an overview of the relevant national, regional and local transport policies against which the development proposals will be assessed and concludes that the proposed development is consistent with relevant national, regional and local planning policy.

9.4 Section 3 describes the site location and the surrounding highway network conditions and concludes that there are no inherent road safety problems on the network surrounding the site.

9.5 Section 4 describes the accessibility of the development site by non-car modes of travel and concludes that although the site has a PTAL rating of 2, the site is served by regular public transport services and is located within an area with established pedestrian facilities.

9.6 Details of the development proposals are contained within Section 5, which demonstrates that the levels of car and cycle parking proposed across the site are in accordance with local policy guidance. Two vehicle accesses would serve the development, enabling delivery vehicles to access the site without travelling past the adjacent store entrances.

9.7 Section 6 sets out the derivation of the development traffic attraction and assignment onto the local highway network under consideration. The trip distribution and assignment of traffic are largely identical to the traffic analysis undertaken for the recent ARLA planning applications.

9.8 The effect of the development on the operation of the local highway network is assessed at Section 7 and it is concluded that both the permitted Victoria Road/Stonefield Way two-way junction arrangement and the proposed Victoria Road access would operate well with their theoretical capacities, with negligible impact on the operation of the local highway network in any of the peak hours assessed.

9.9 Section 8 considered the potential traffic attraction implications of the proposed Lidl foodstore becoming occupied by a mainstream open A1 use retailer. It is considered that due to insufficient comparable data being available, using generic A1 foodstore data for proposed Lidl foodstores is not appropriate.

9.10 The development would therefore not give rise to any adverse transport impacts and is supported by transport planning policies at national, regional and local level.

Gateway TSP

FIGURES

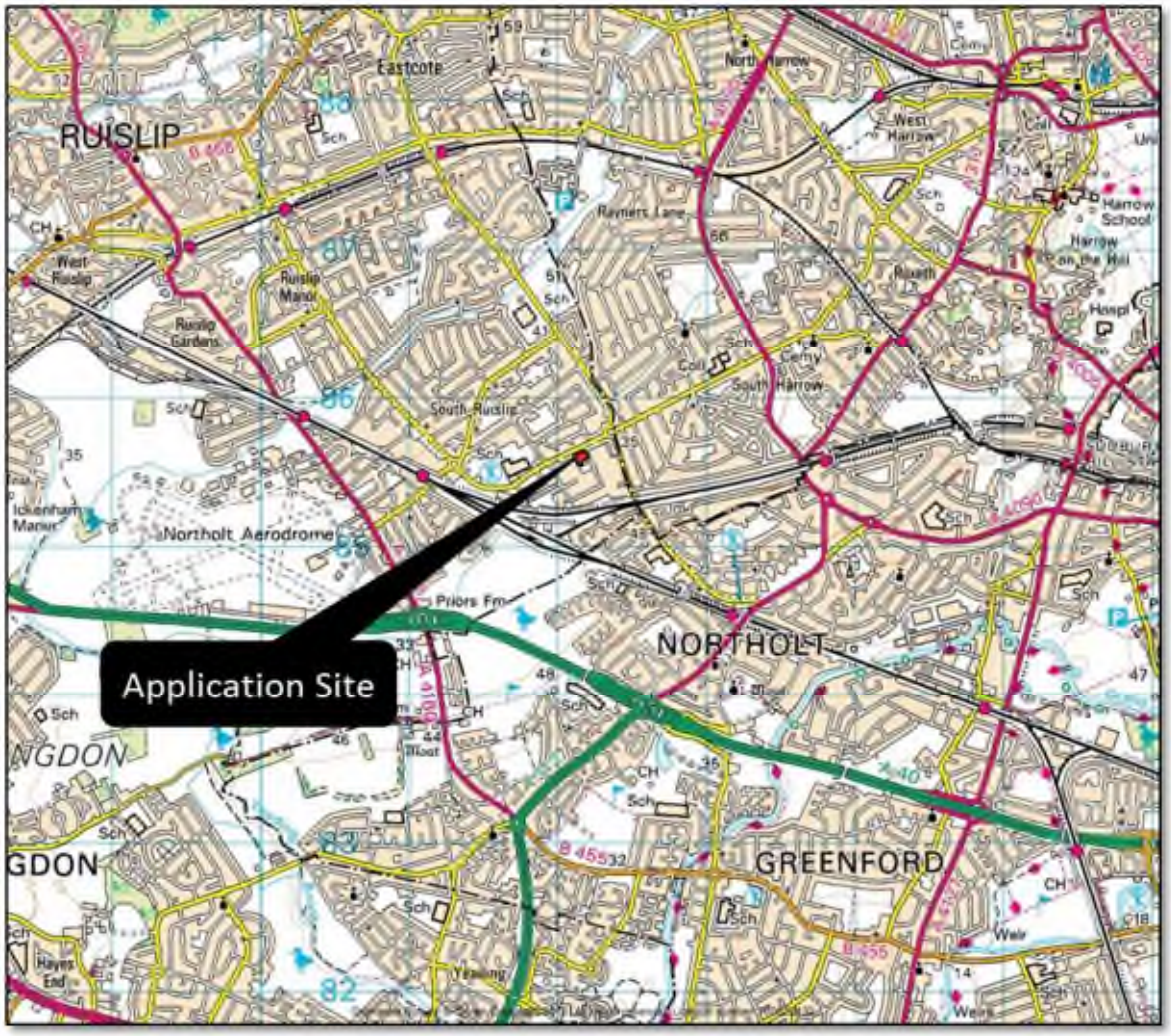


Figure 1: Strategic Site Location Plan

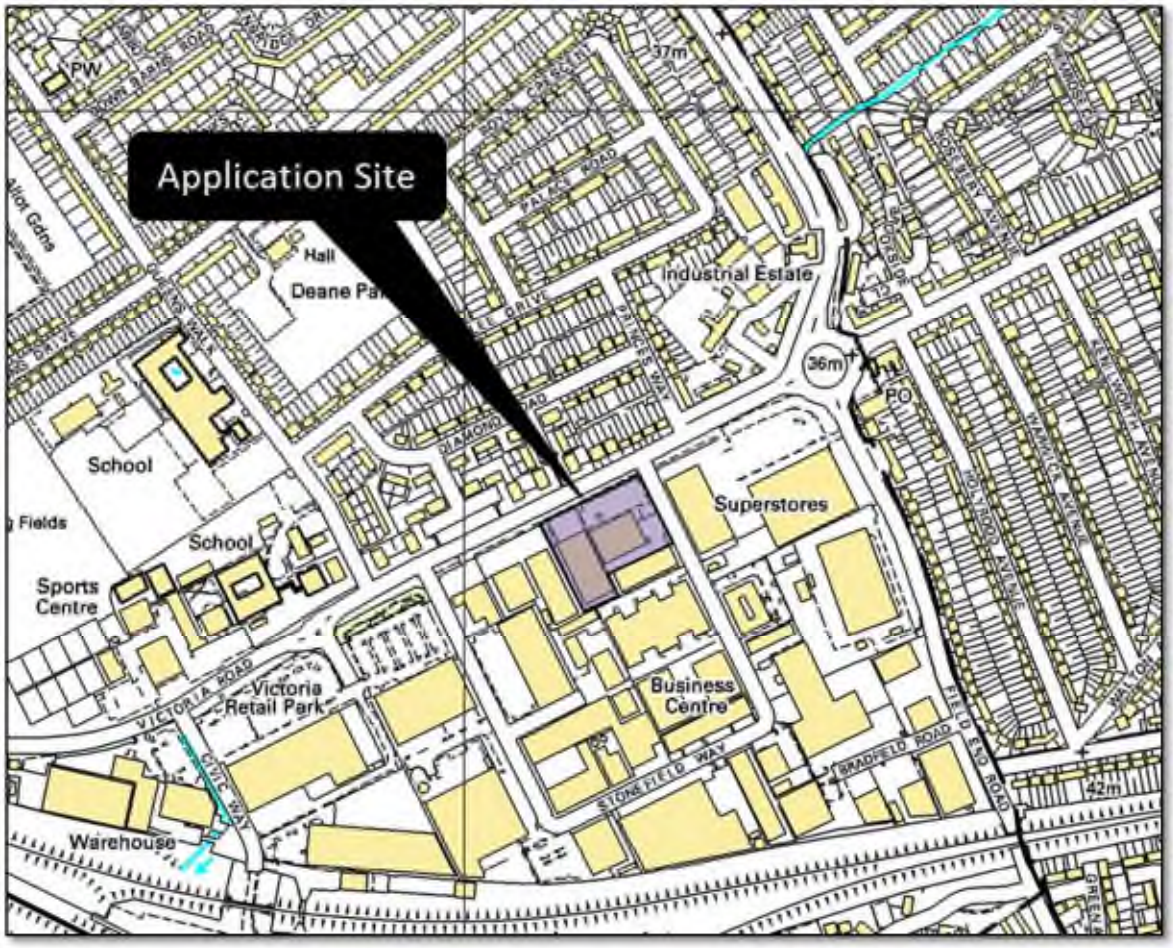
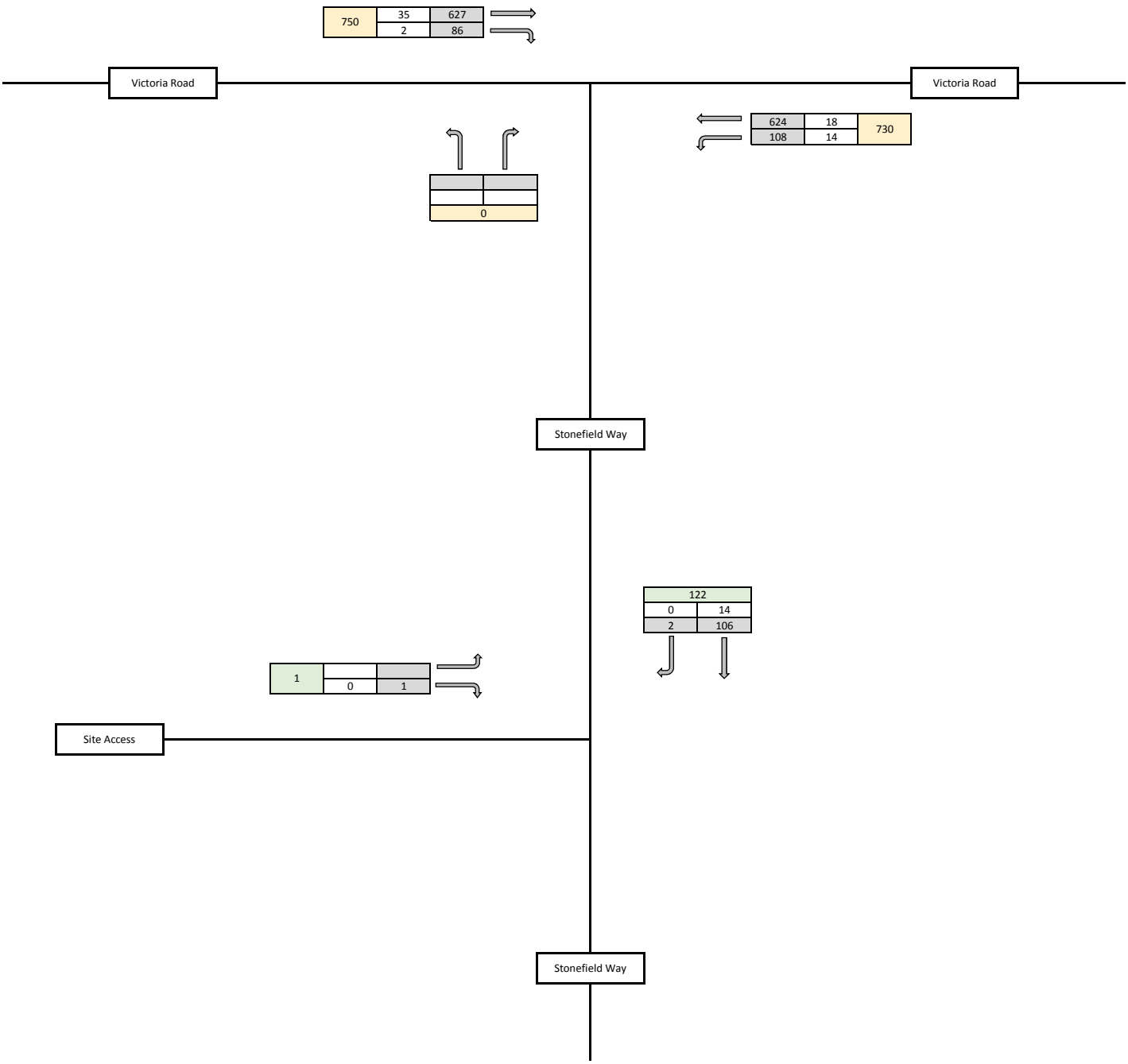


Figure 2: Local Site Location Plan

Stonefield Way, South Ruislip
Weekday Morning Peak Hour (08:00 - 09:00) - 2013 Observed Traffic Flows

Figure 3.1

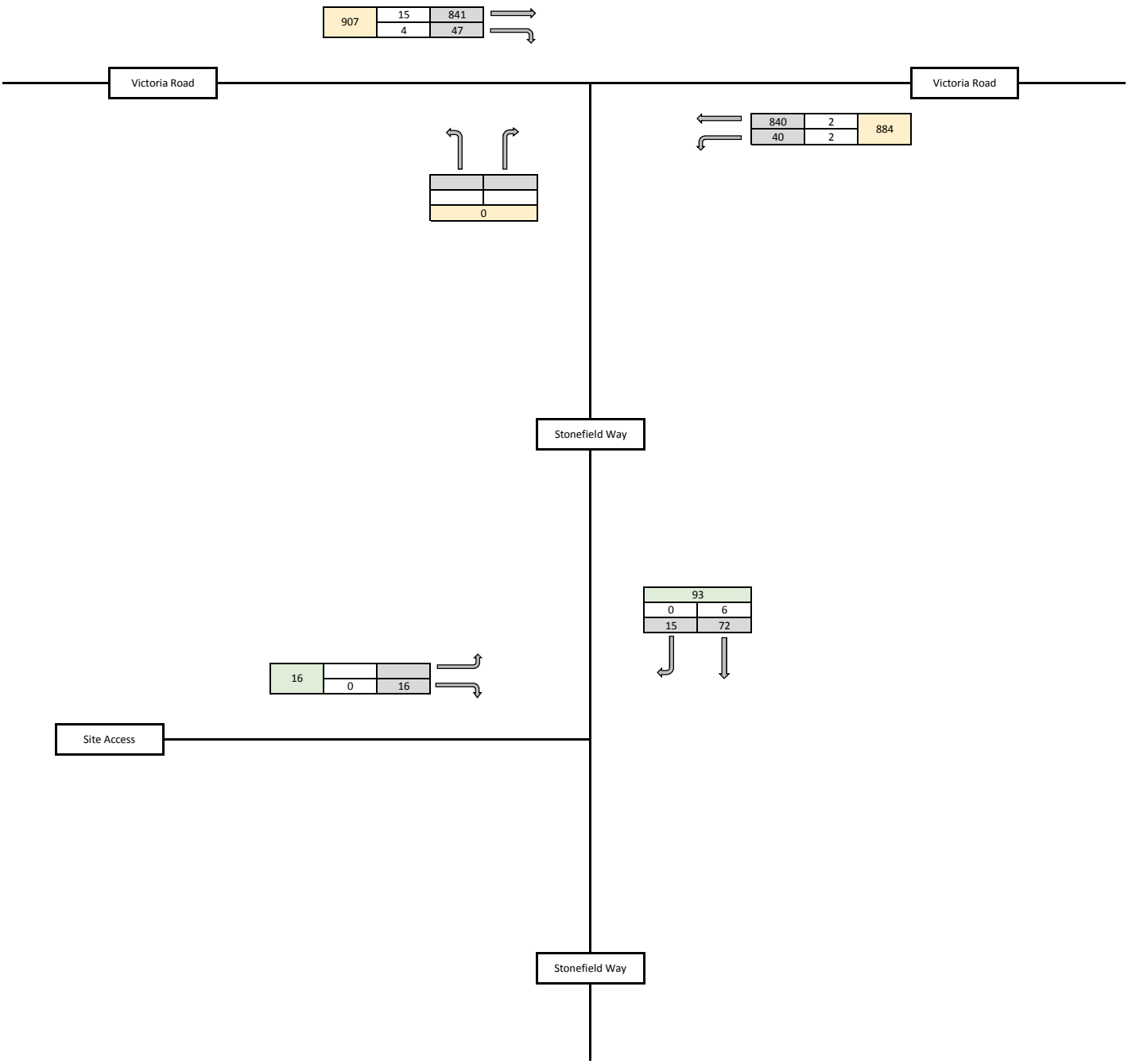


Key

0	Light Vehicles
0	HGV's
0	Total Vehicles (Junction 1)

Stonefield Way, South Ruislip
Weekday Evening Peak Hour (17:00 - 18:00) - 2012 Observed Traffic Flows

Figure 3.2

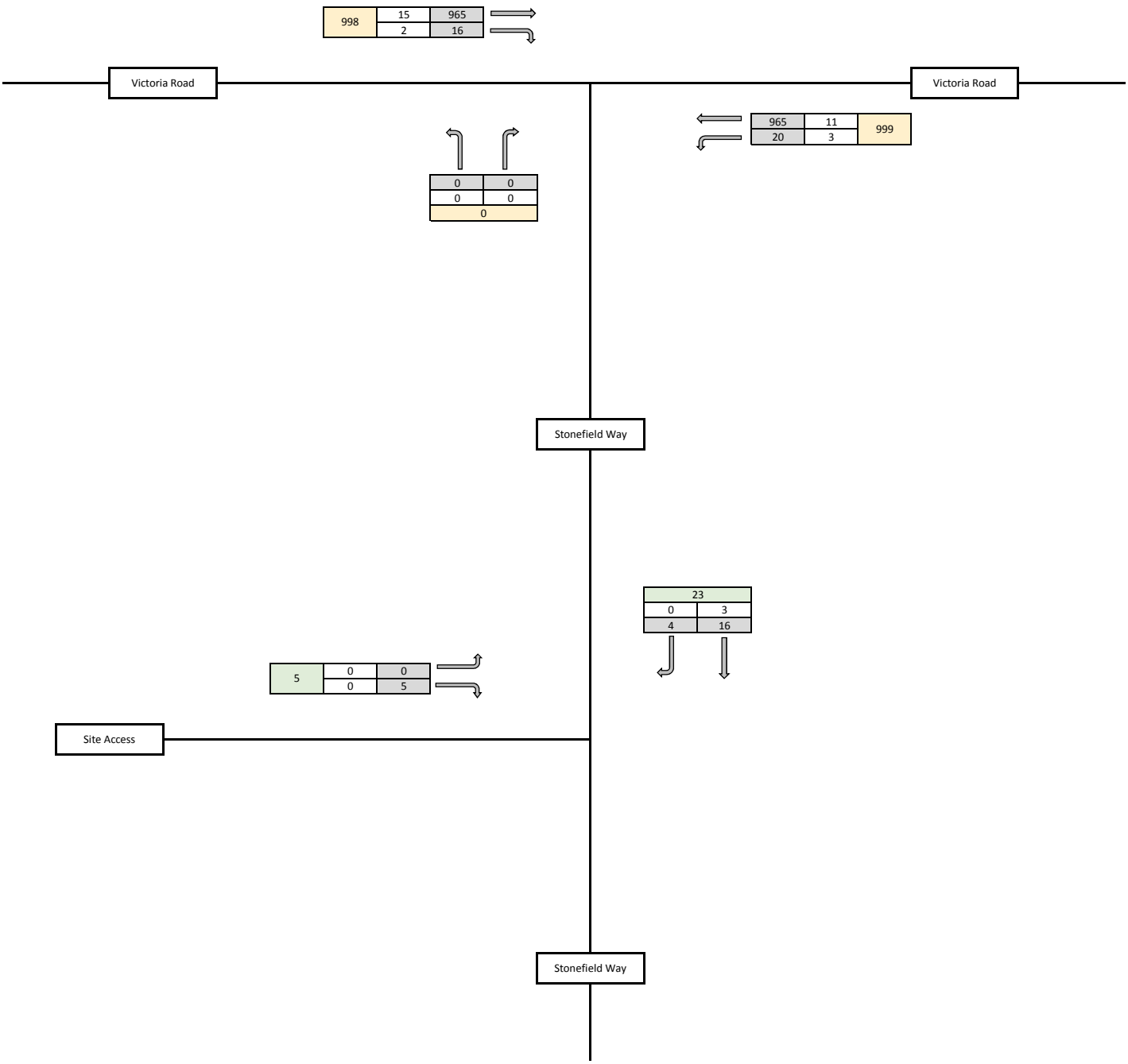


Key

0	Light Vehicles
0	HGV's
0	Total Vehicles (Junction 1)

Stonefield Way, South Ruislip
Saturday Peak Hour (14:00 - 15:00) - 2013 Observed Traffic Flows

Figure 3.3

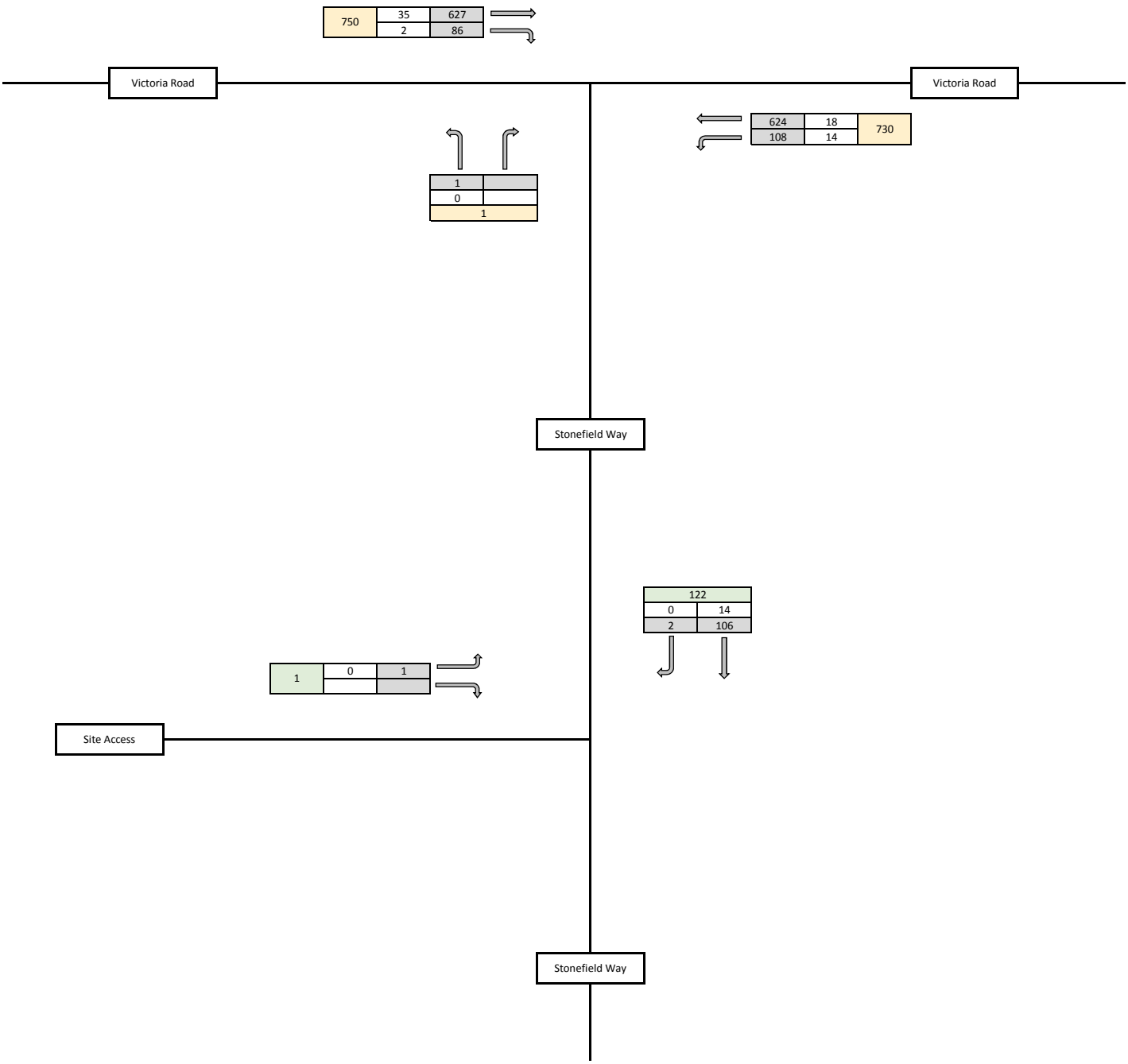


Key

0	Light Vehicles
0	HGV's
0	Total Vehicles (Junction 1)

Stonefield Way, South Ruislip
Weekday Morning Peak Hour (08:00 - 09:00) - 2013 Observed with Two-way Access

Figure 3.4

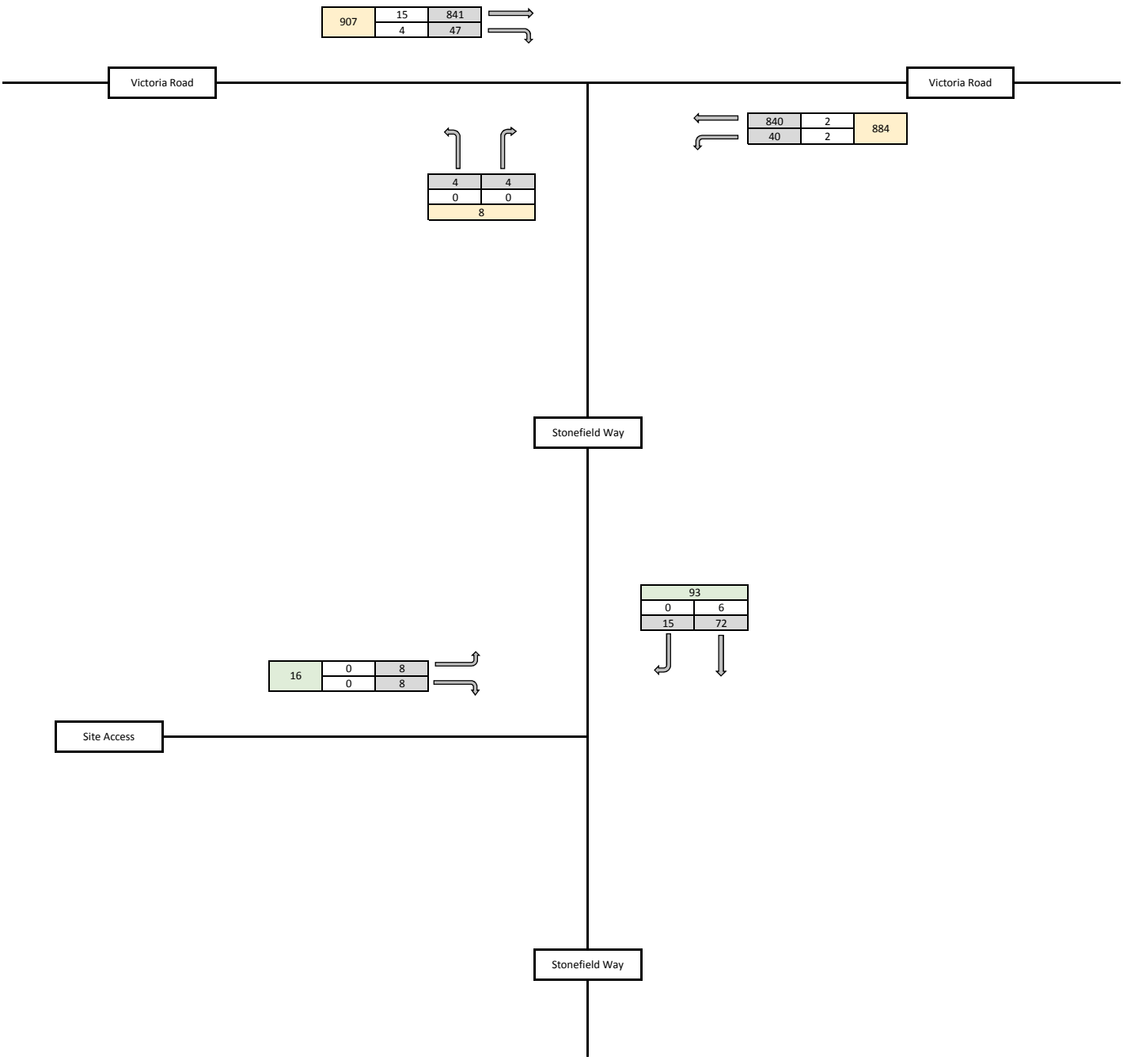


Key

0	Light Vehicles
0	HGV's
0	Total Vehicles (Junction 1)

Stonefield Way, South Ruislip
Weekday Evening Peak Hour (17:00 - 18:00) - 2012 Observed with Two-way Access

Figure 3.5

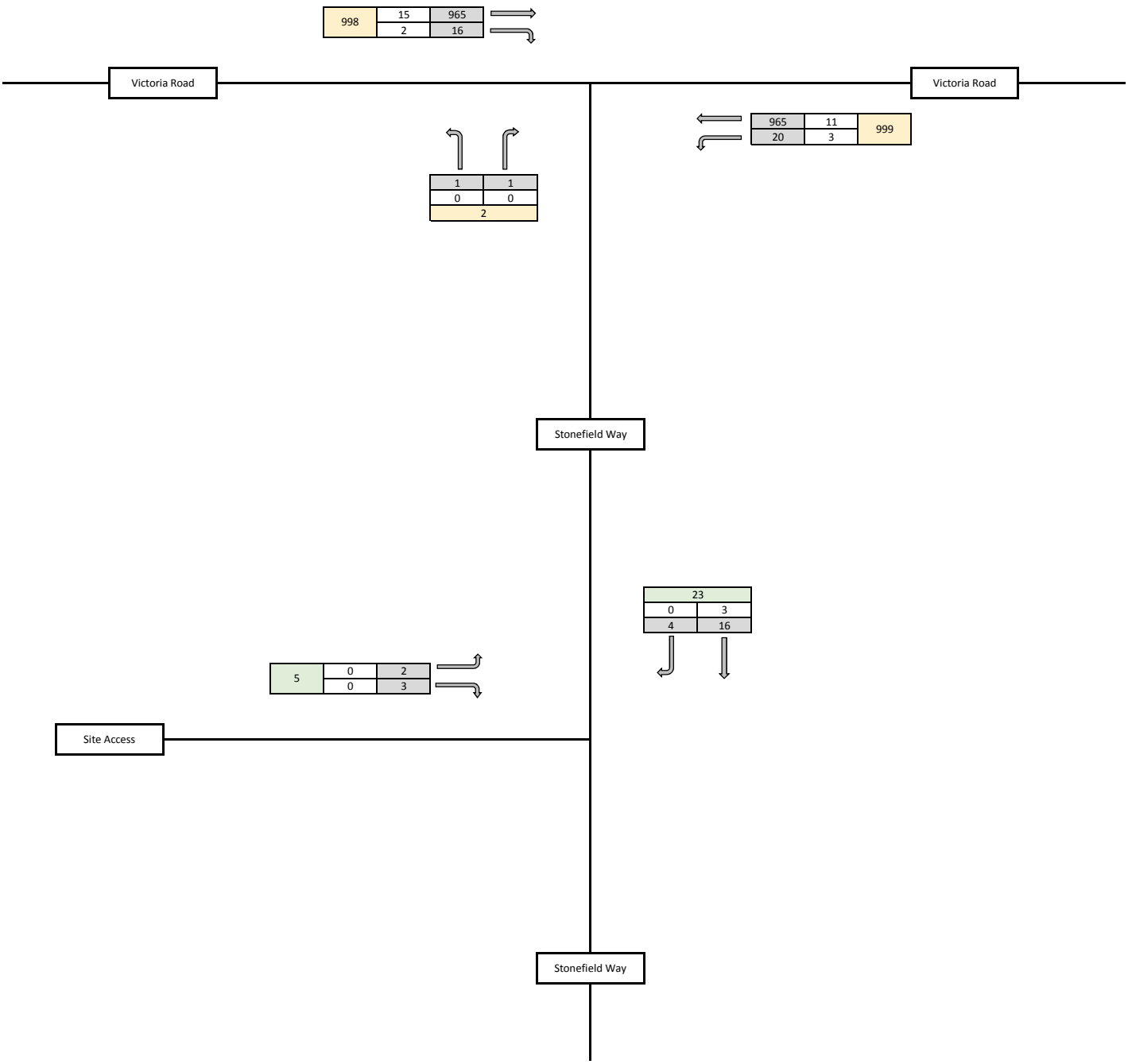


Key

0	Light Vehicles
0	HGV's
0	Total Vehicles (Junction 1)

Stonefield Way, South Ruislip
Saturday Peak Hour (14:00 - 15:00) - 2013 Observed with Two-way Access

Figure 3.6

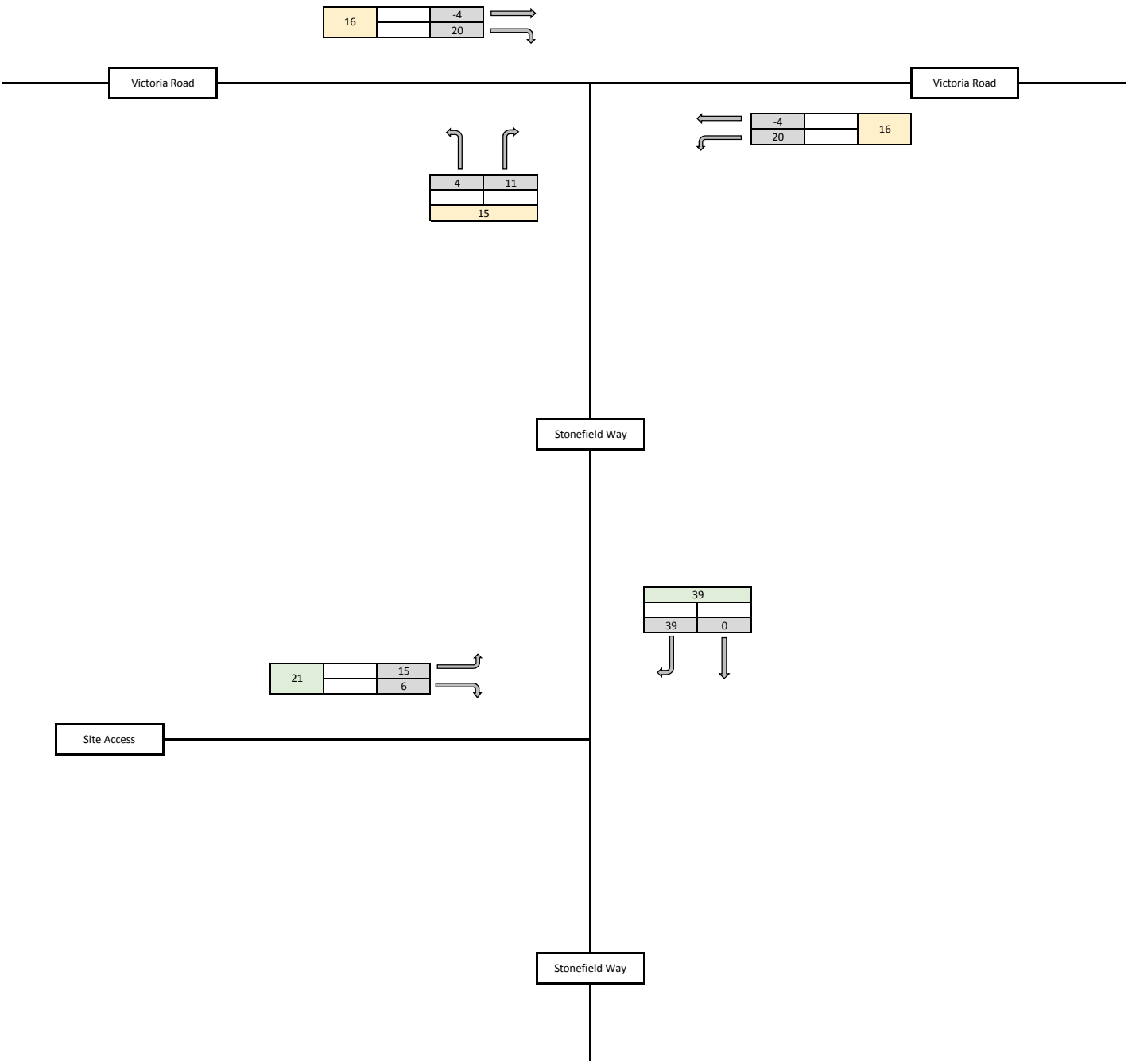


Key

0	Light Vehicles
0	HGV's
0	Total Vehicles (Junction 1)

Stonefield Way, South Ruislip
Weekday Morning Peak Hour (08:00 - 09:00) - Permitted Open A1 Traffic Flows

Figure 6.1

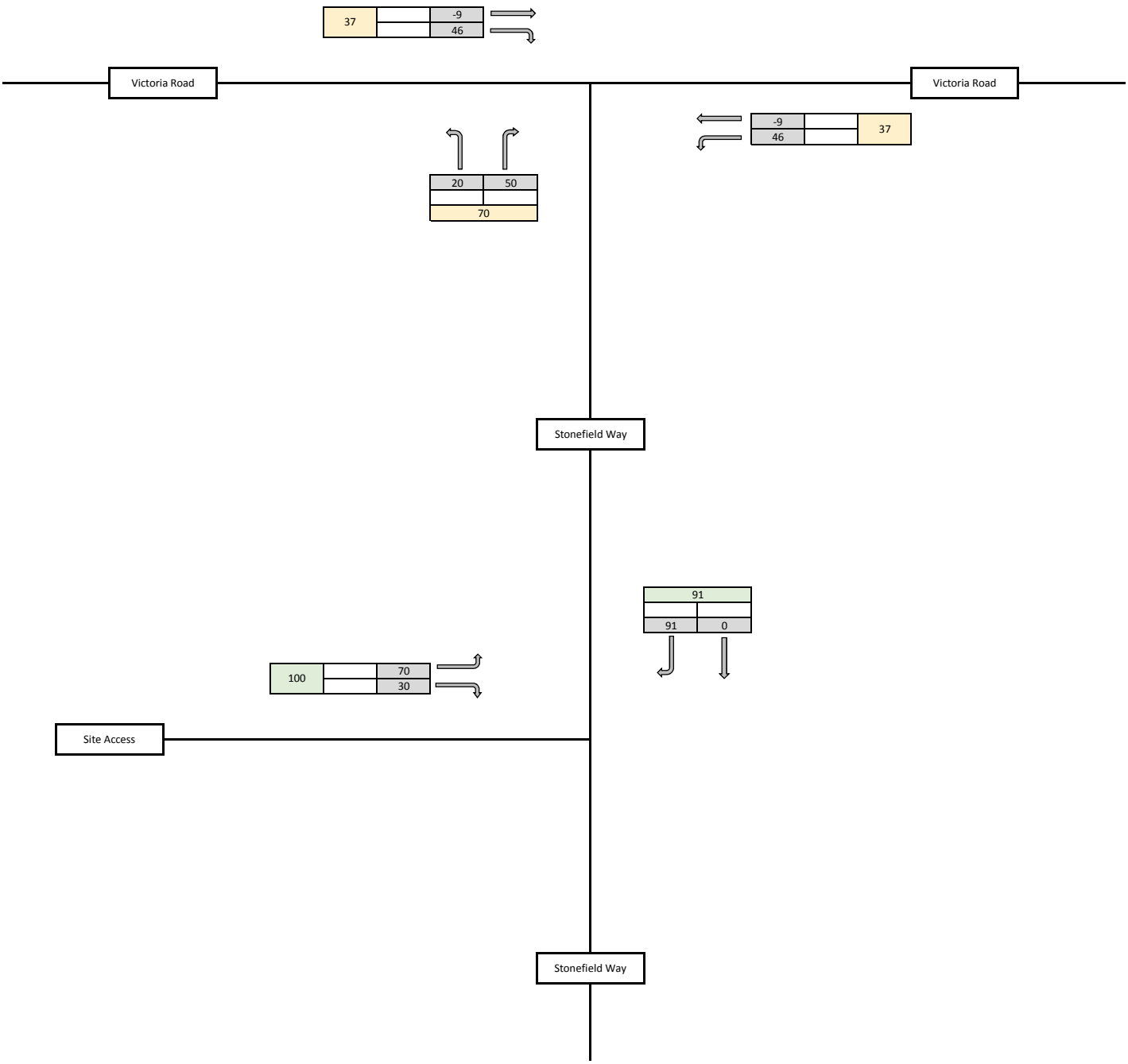


Key

0	Light Vehicles
0	HGV's
0	Total Vehicles (Junction 1)

Stonefield Way, South Ruislip
Weekday Evening Peak Hour (17:00 - 18:00) - Permitted Open A1 Scenario Traffic Flows

Figure 6.2

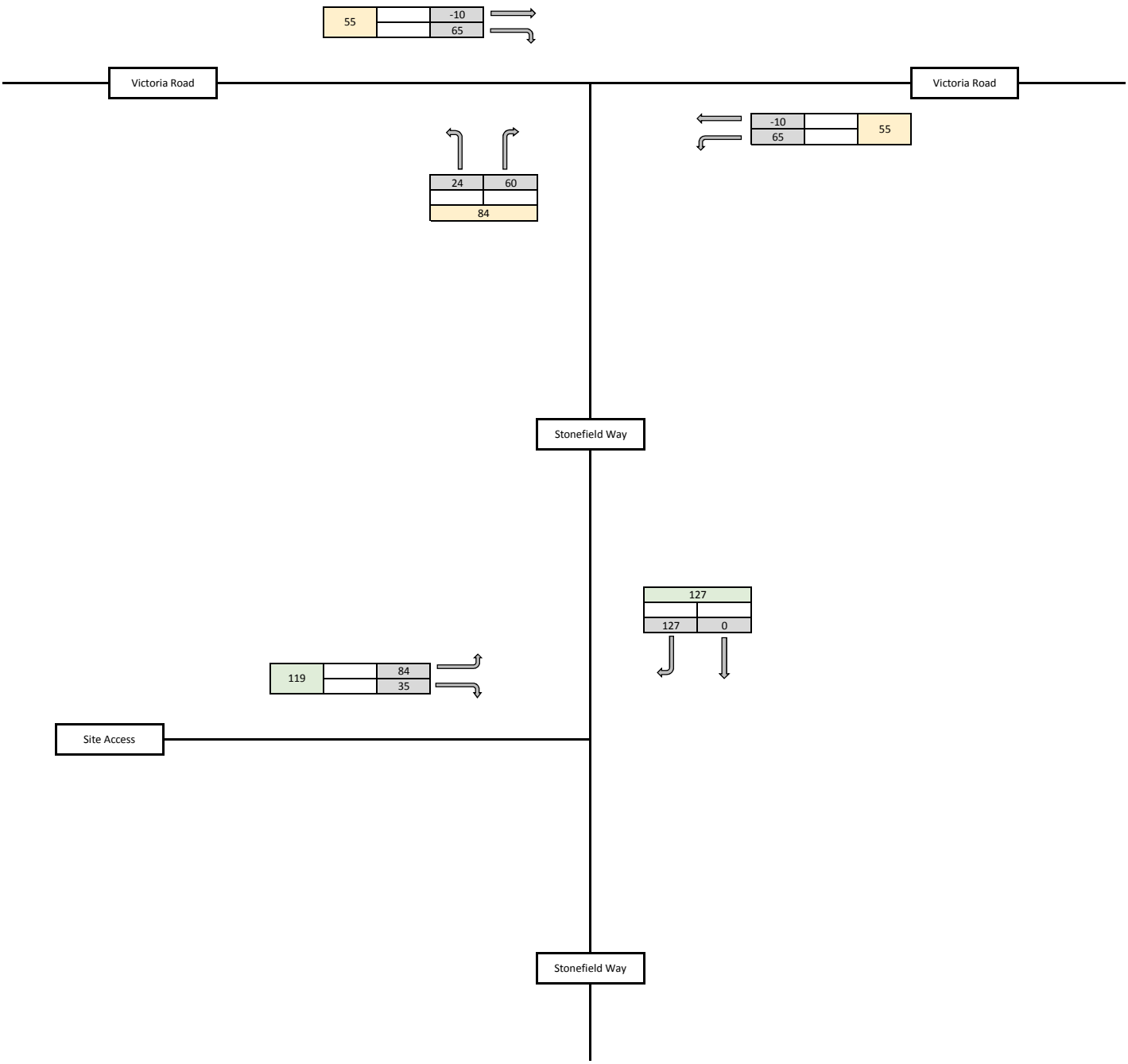


Key

0	Light Vehicles
0	HGV's
0	Total Vehicles (Junction 1)

Stonefield Way, South Ruislip
Saturday Peak Hour (14:00 - 15:00) - Permitted Open A1 Scenario Traffic Flows

Figure 6.3

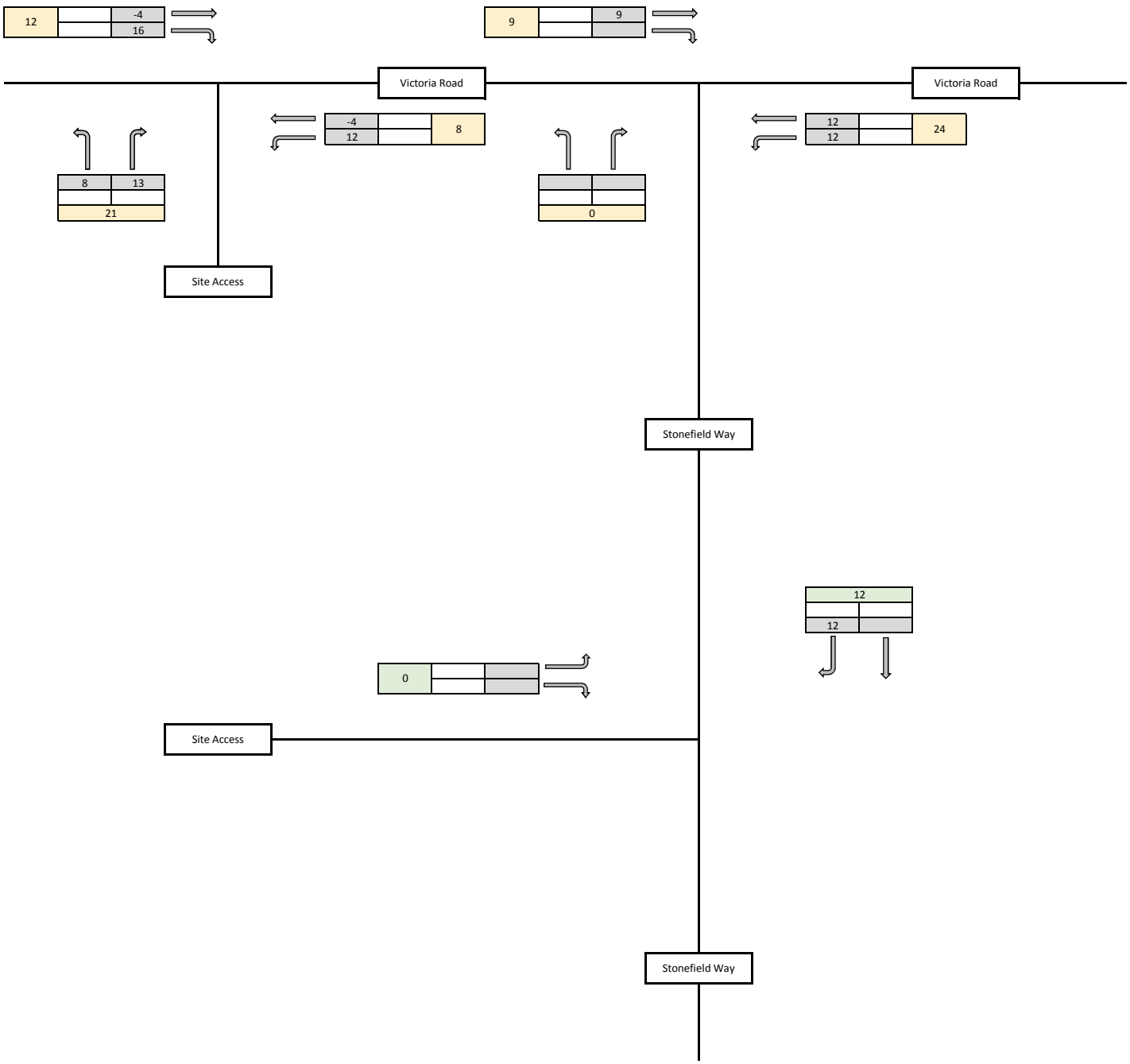


Key

0	Light Vehicles
0	HGV's
0	Total Vehicles (Junction 1)

Stonefield Way, South Ruislip
Weekday Morning Peak Hour (08:00 - 09:00) - Permitted Open A1 Proposed
Redistribution of Traffic Flows

Figure 6.4

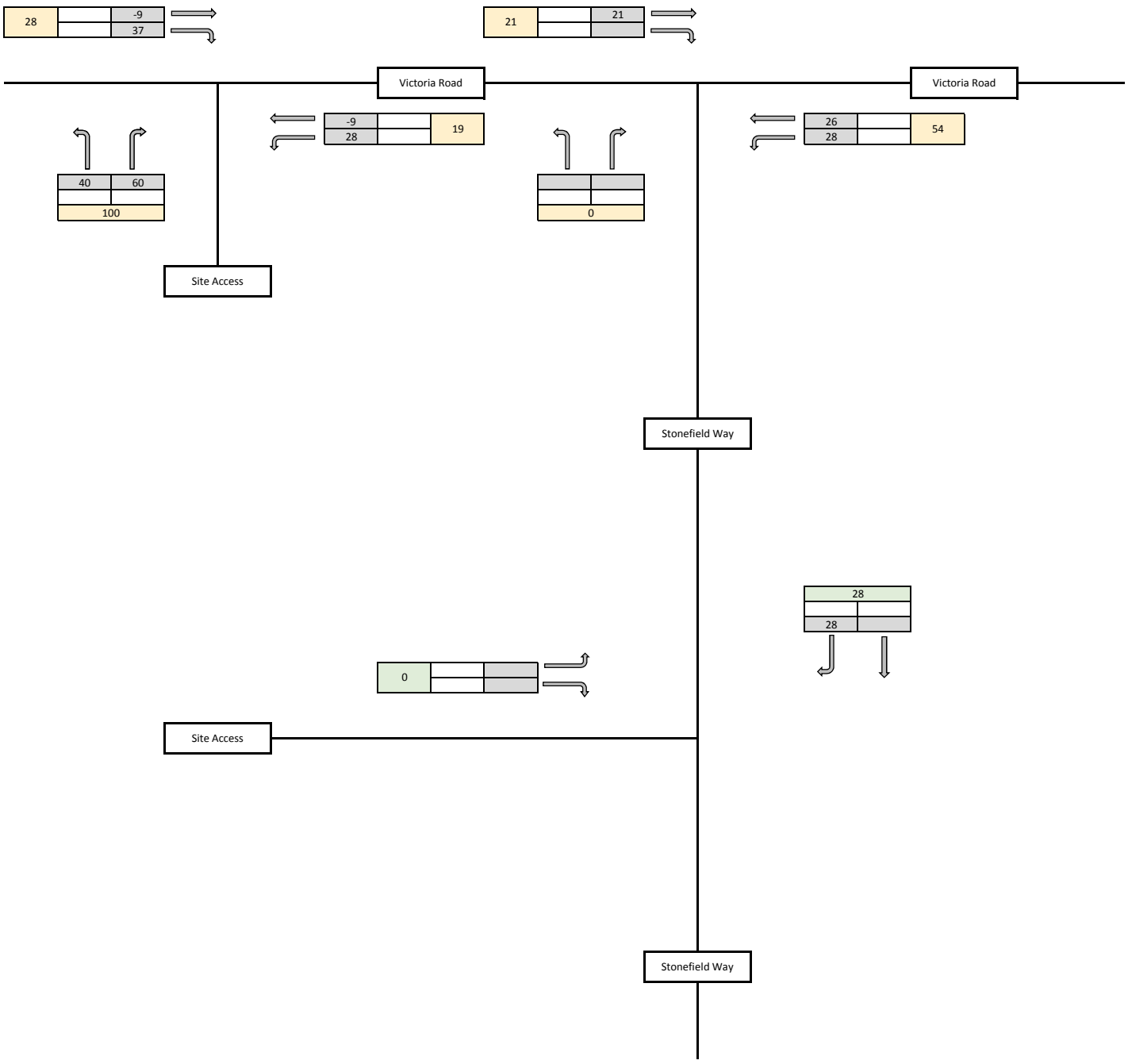


Key

0	Light Vehicles
0	HGV's
0	Total Vehicles (Junction 1)

Stonefield Way, South Ruislip
Weekday Evening Peak Hour (17:00 - 18:00) - Permitted Open A1 Proposed
Redistribution of Traffic Flows

Figure 6.5

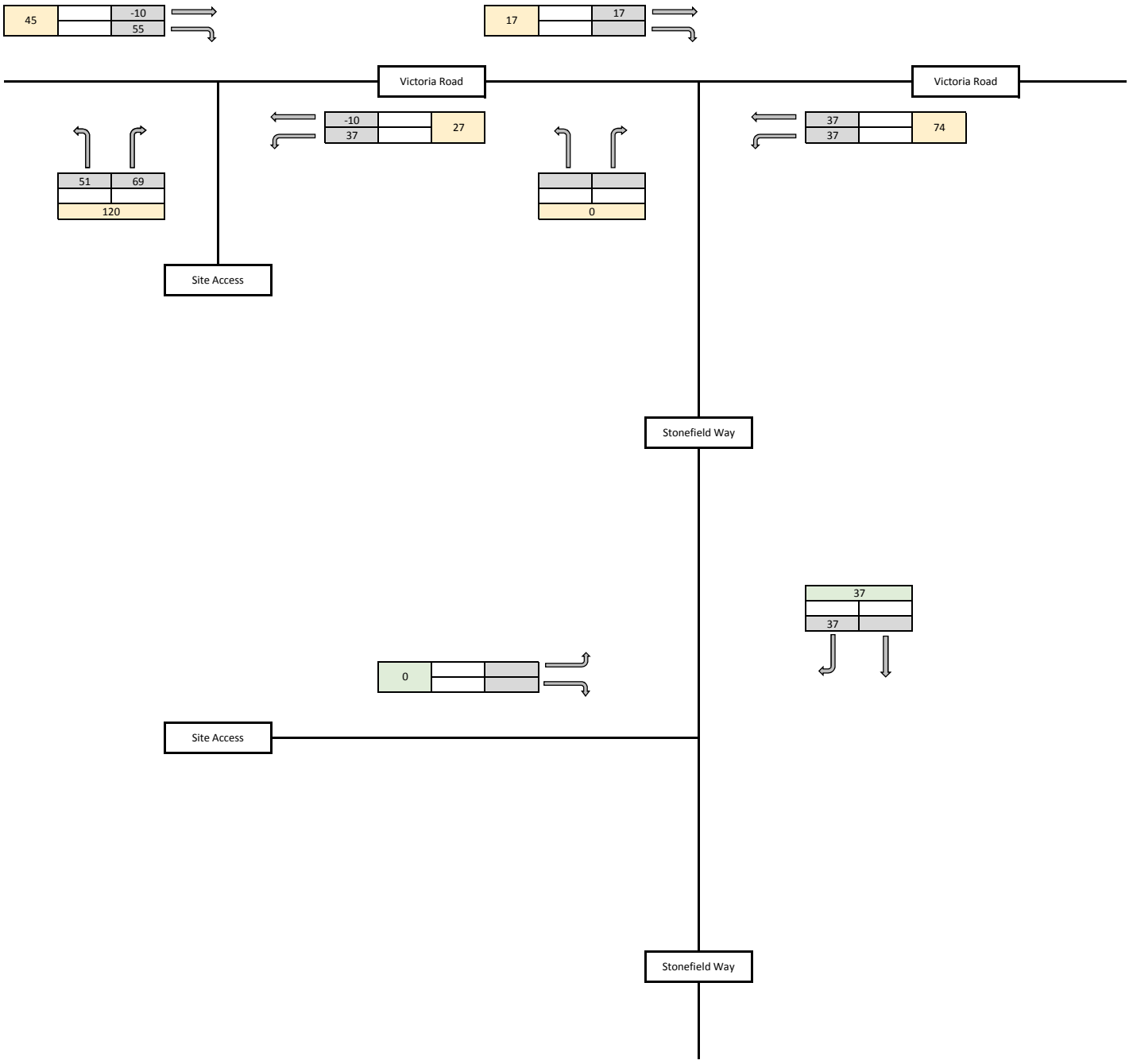


Key

0	Light Vehicles
0	HGV's
0	Total Vehicles (Junction 1)

Stonefield Way, South Ruislip
Saturday Peak Hour (14:00 - 15:00) - Permitted Open A1 Proposed Redistribution of Traffic Flows

Figure 6.6

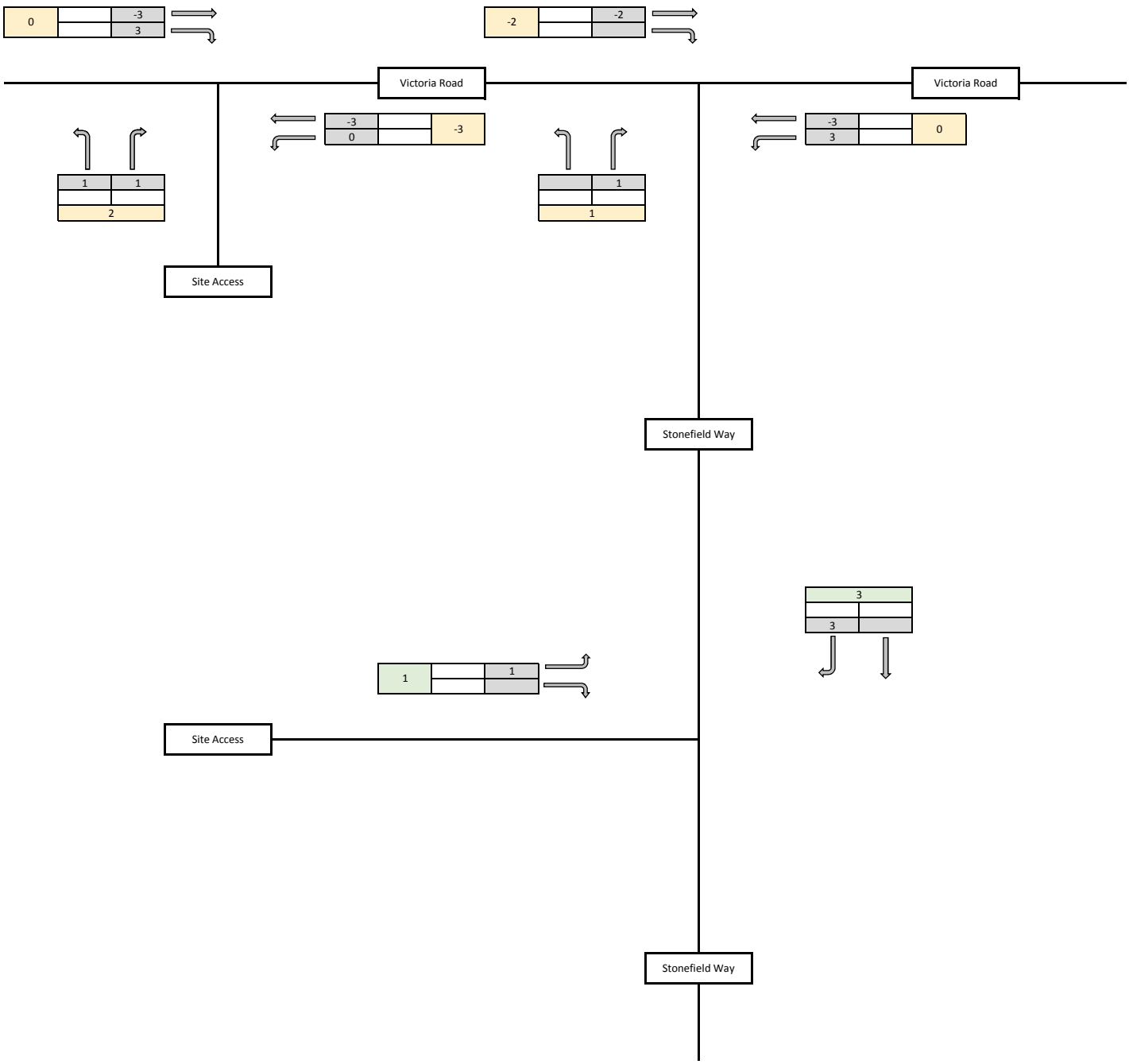


Key

0	Light Vehicles
0	HGV's
0	Total Vehicles (Junction 1)

Stonefield Way, South Ruislip
Weekday Morning Peak Hour (08:00 - 09:00) - Proposed Non-food Retail A1 Comparison Goods Traffic Flows

Figure 7.1

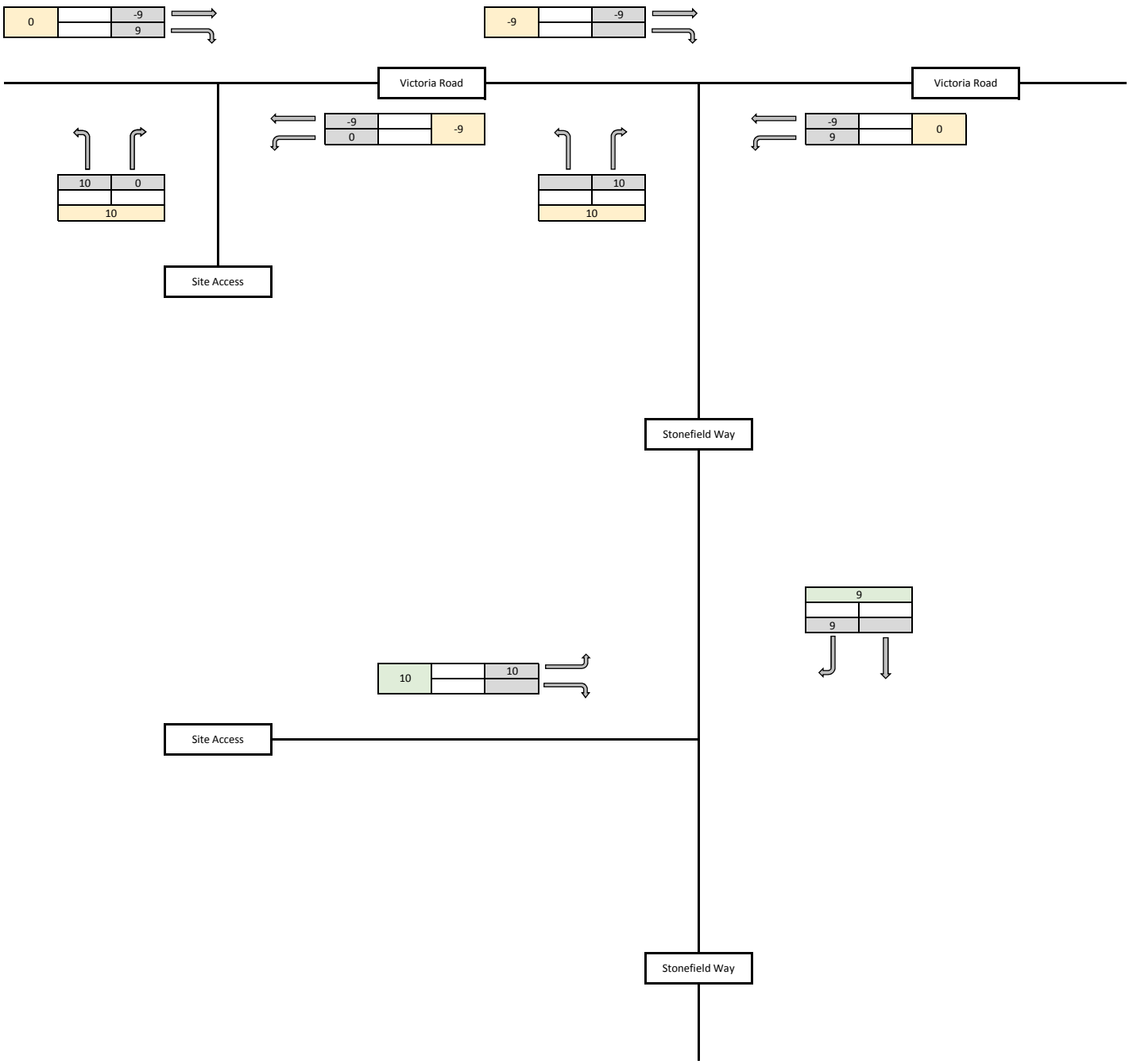


Key

0	Light Vehicles
0	HGV's
0	Total Vehicles (Junction 1)

Stonefield Way, South Ruislip
Weekday Evening Peak Hour (17:00 - 18:00) - Proposed Non-food Retail A1
Comparison Goods Traffic Flows

Figure 7.2

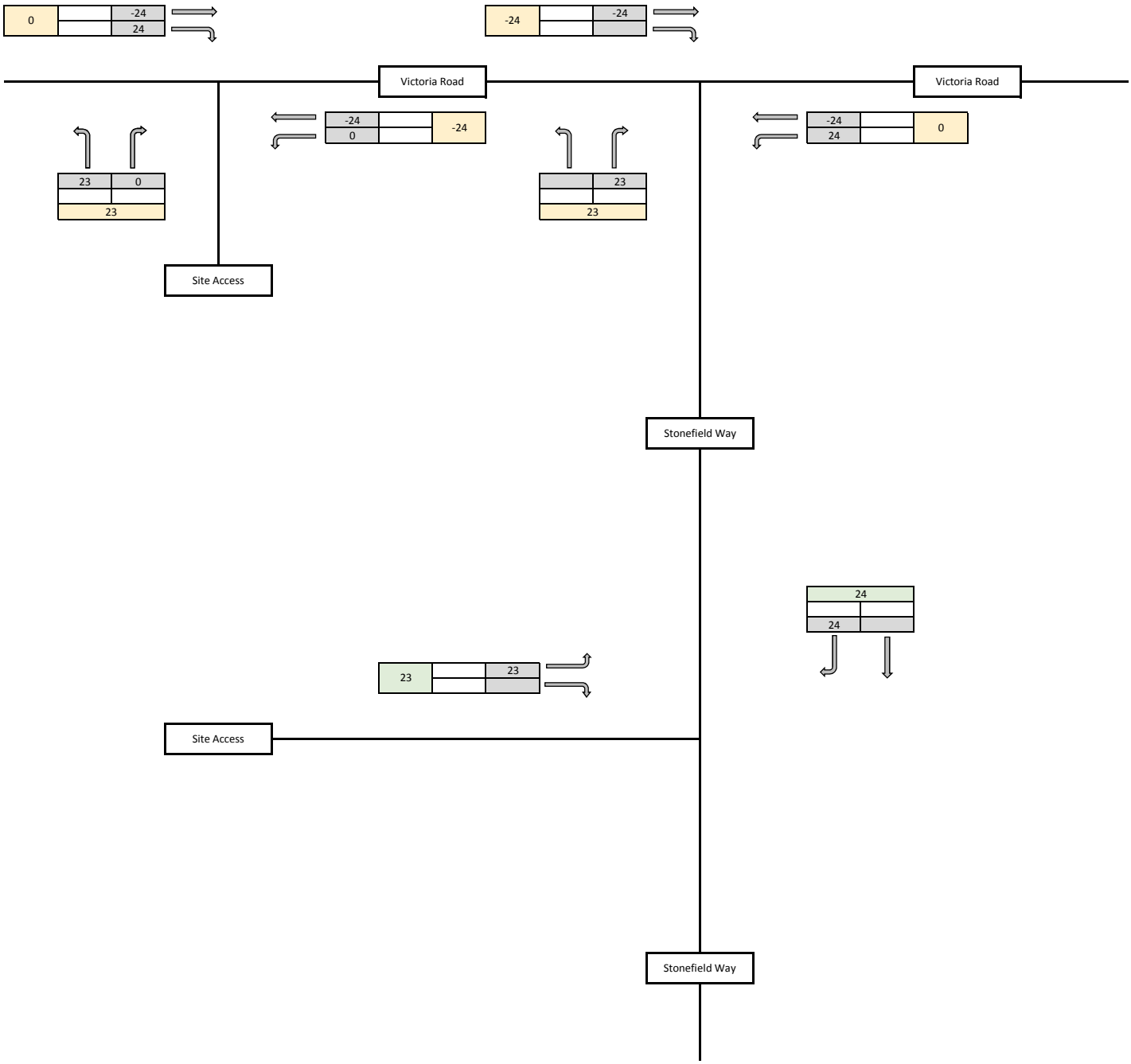


Key

0	Light Vehicles
0	HGV's
0	Total Vehicles (Junction 1)

Stonefield Way, South Ruislip
Saturday Peak Hour (14:00 - 15:00) - Proposed Non-food Retail A1 Comparison Goods Traffic Flows

Figure 7.3

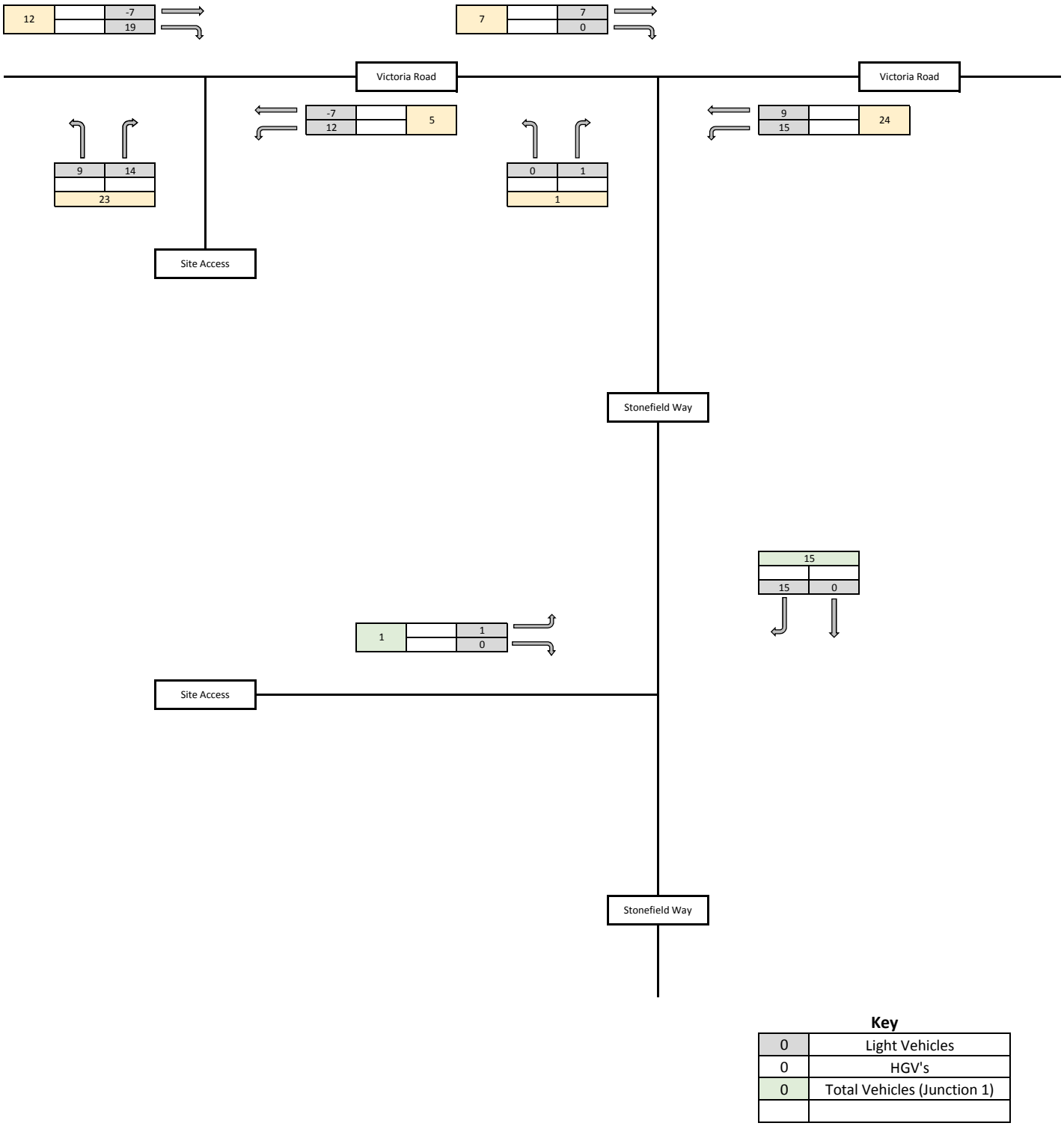


Key

0	Light Vehicles
0	HGV's
0	Total Vehicles (Junction 1)

Stonefield Way, South Ruislip
Weekday Morning Peak Hour (08:00 - 09:00) - Combined Permitted Open A1 and Proposed Non-Food Retail Traffic Flows

Figure 7.4

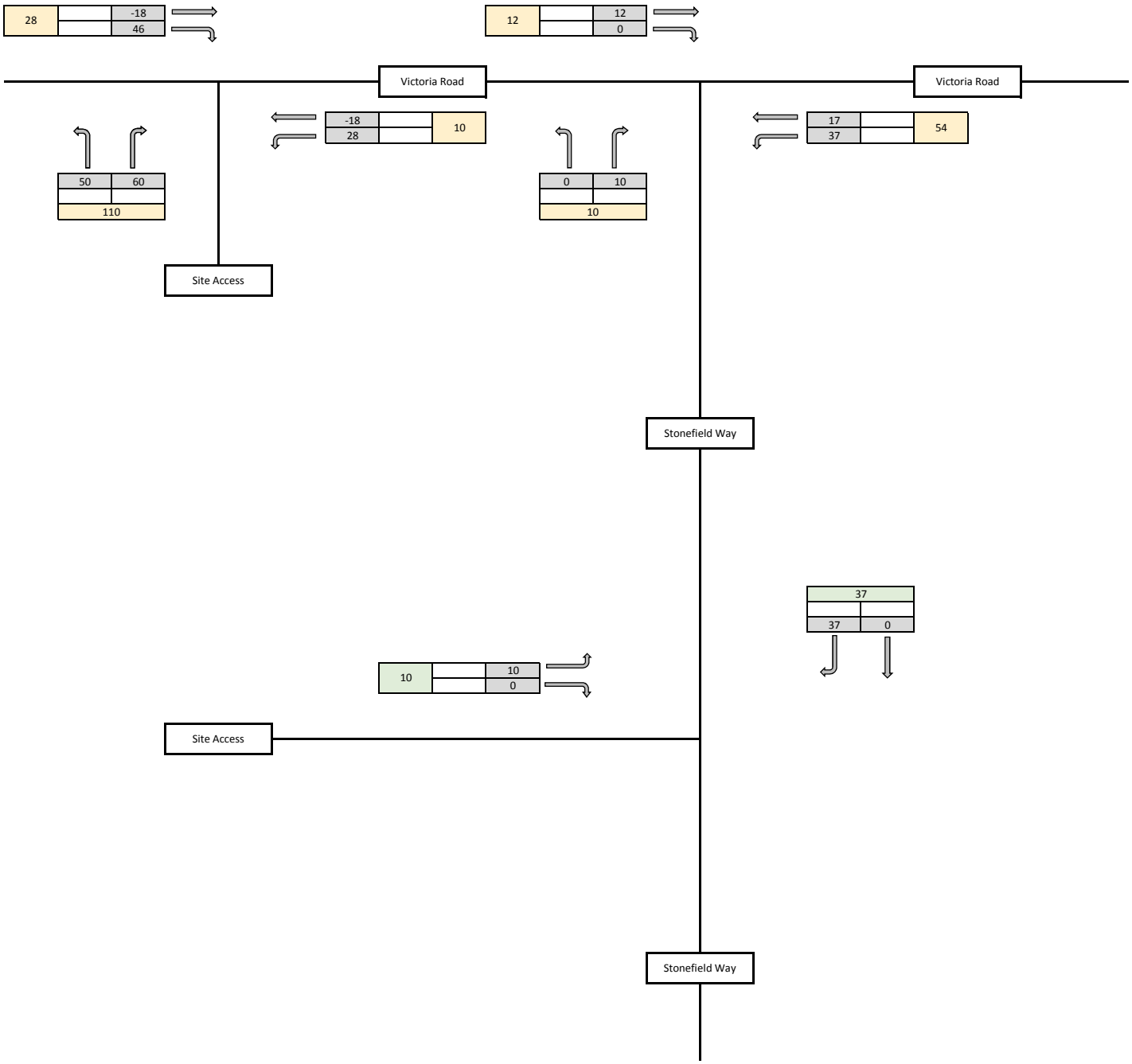


Key

0	Light Vehicles
0	HGV's
0	Total Vehicles (Junction 1)

Stonefield Way, South Ruislip
Weekday Evening Peak Hour (18:00 - 19:00) - Combined Permitted Open A1 and Proposed Non-Food Retail Traffic Flows

Figure 7.5

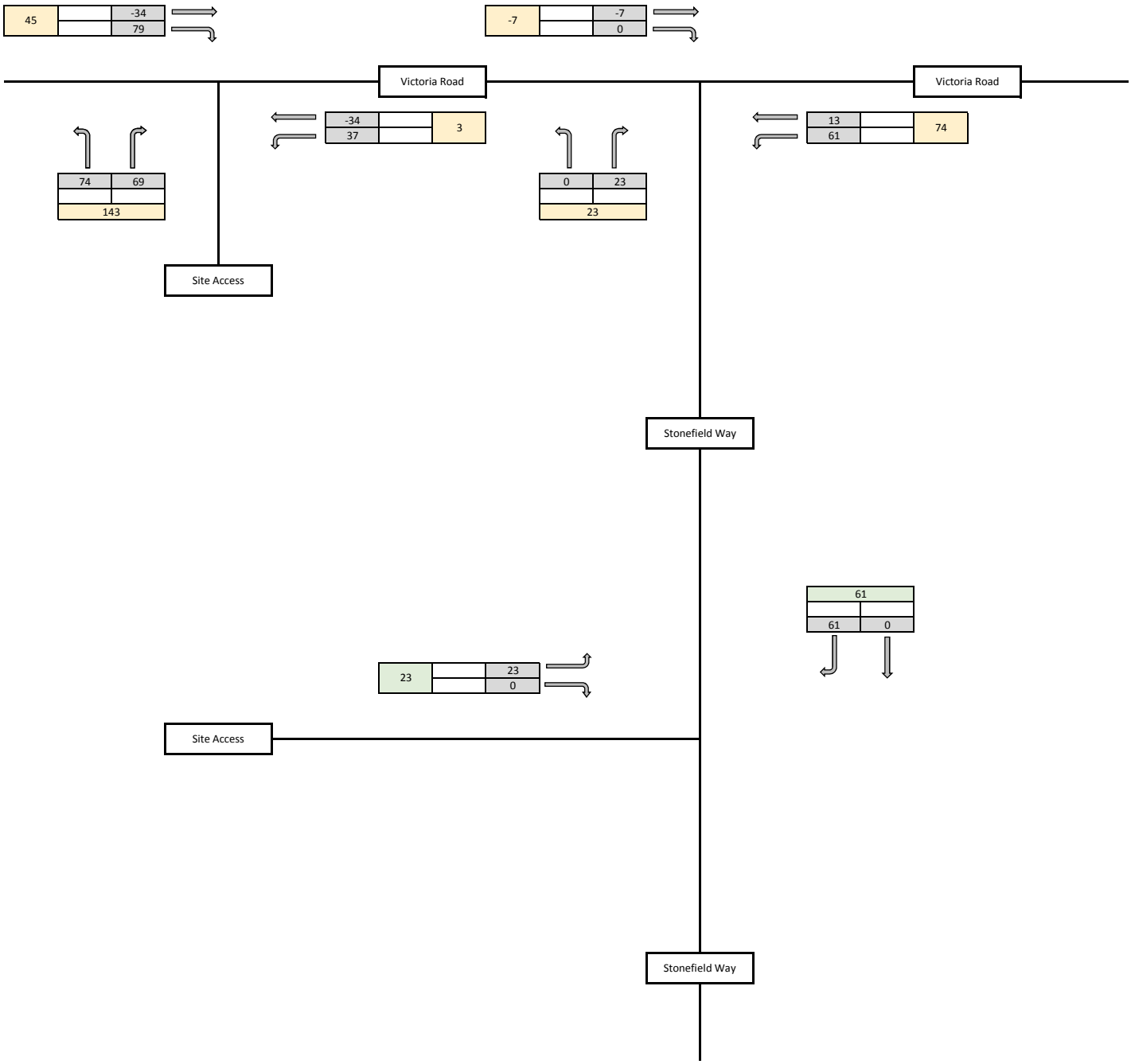


Key

0	Light Vehicles
0	HGV's
0	Total Vehicles (Junction 1)

Stonefield Way, South Ruislip
Saturday Peak Hour (14:00 - 15:00) - Combined Permitted Open A1 and Proposed Non-Food Retail Traffic Flows

Figure 7.6

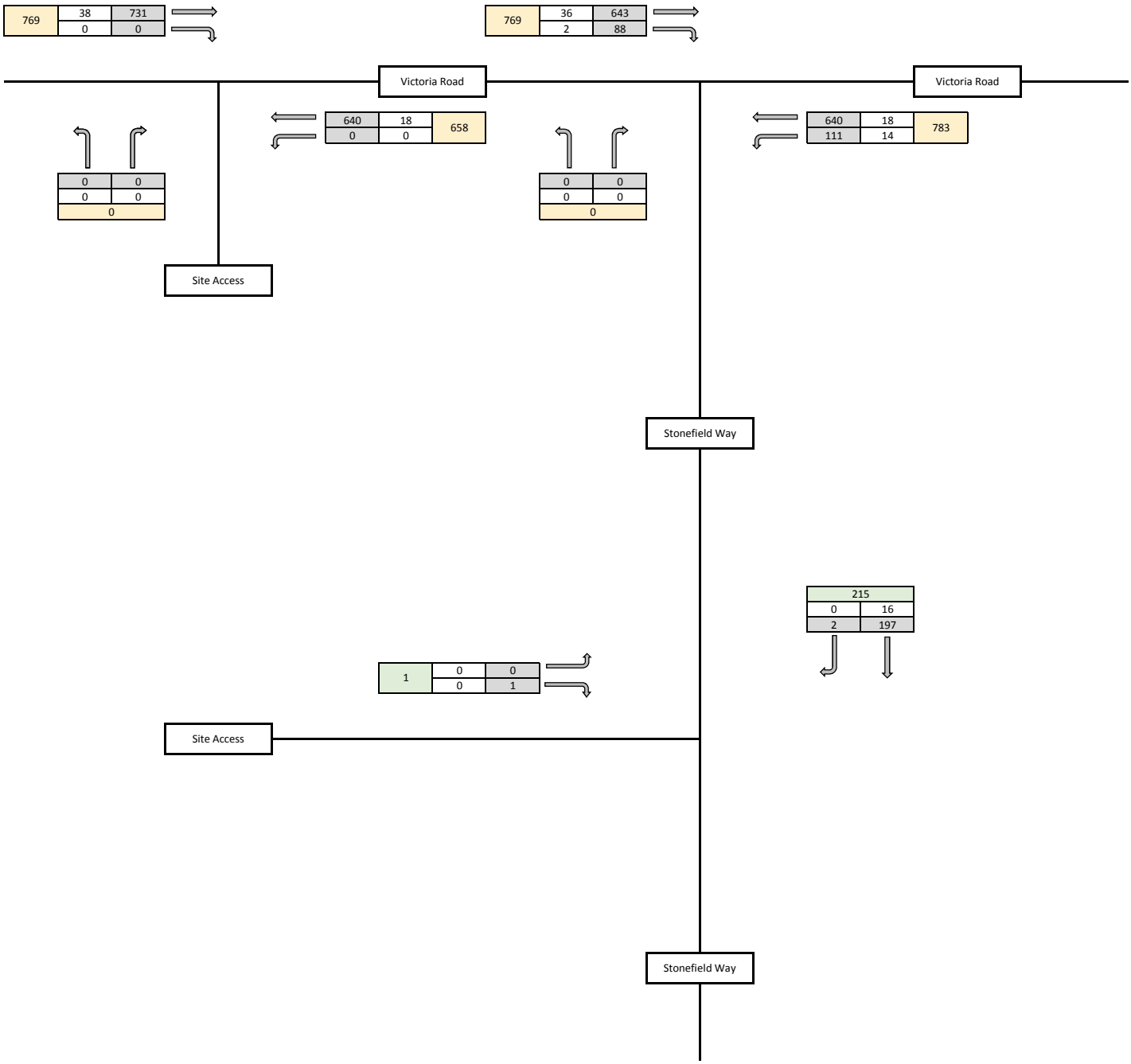


Key

0	Light Vehicles
0	HGV's
0	Total Vehicles (Junction 1)

Stonefield Way, South Ruislip
Weekday Morning Peak Hour (08:00 - 09:00) - 2016 Baseline Traffic Flows

Figure 8.1

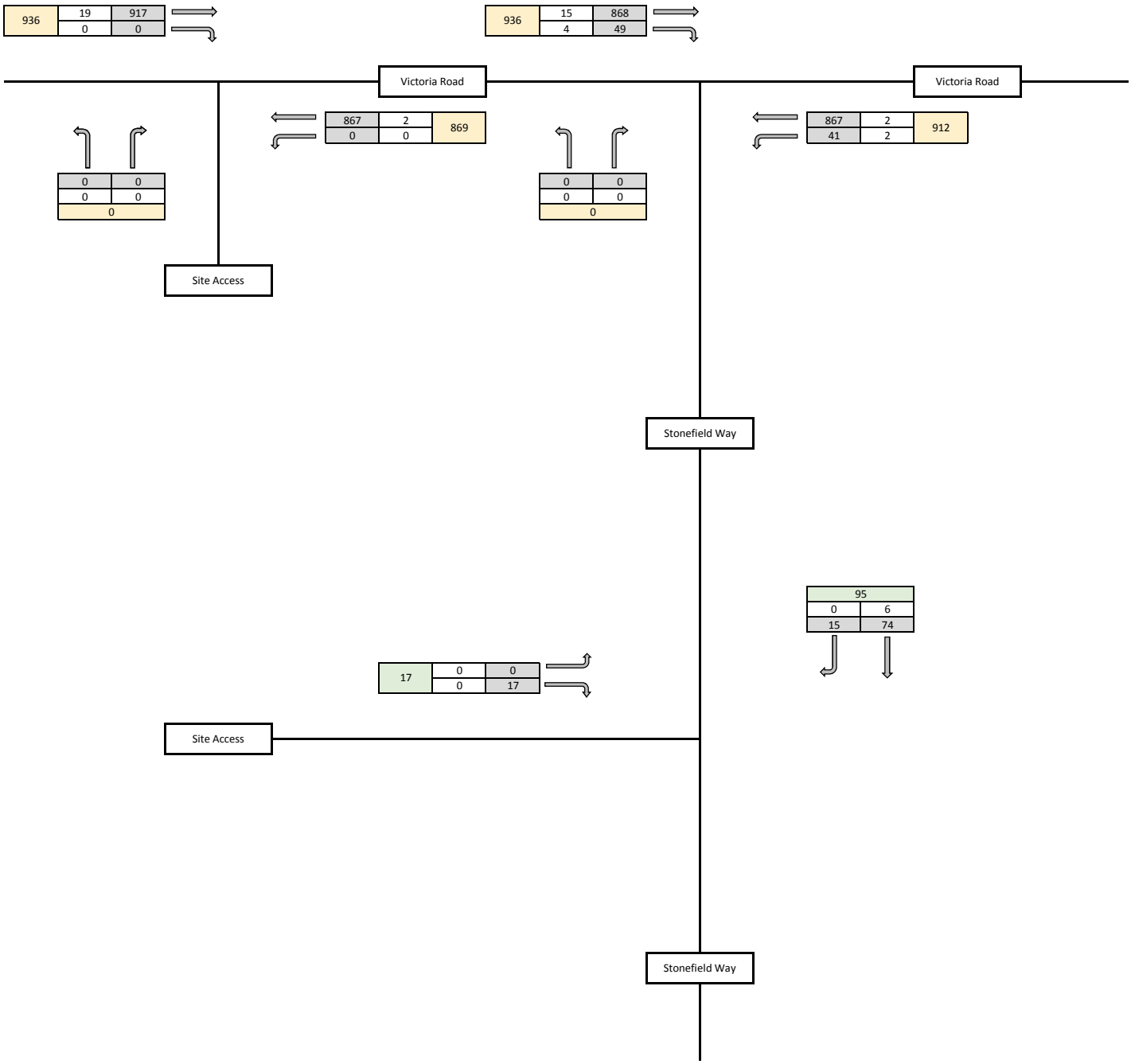


Key

0	Light Vehicles
0	HGV's
0	Total Vehicles (Junction 1)
1.026	2016 TEMPRO Growth

Stonefield Way, South Ruislip
Weekday Evening Peak Hour (17:00 - 18:00) - 2016 Baseline Traffic Flows

Figure 8.2

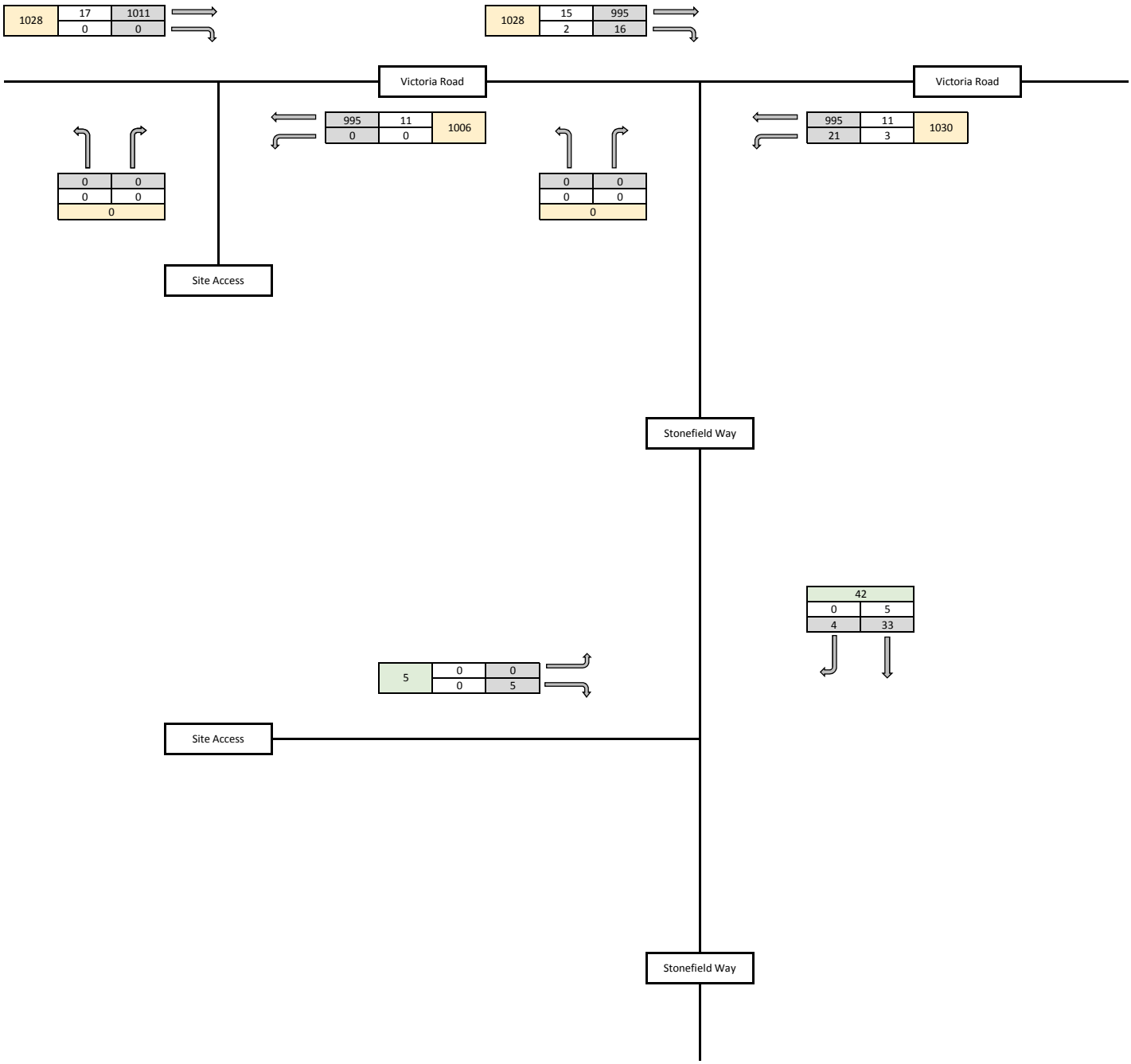


Key

0	Light Vehicles
0	HGV's
0	Total Vehicles (Junction 1)
1.032	2015 TEMPRO Growth

Stonefield Way, South Ruislip
Saturday Peak Hour (14:00 - 15:00) - 2016 Baseline Traffic Flows

Figure 8.3

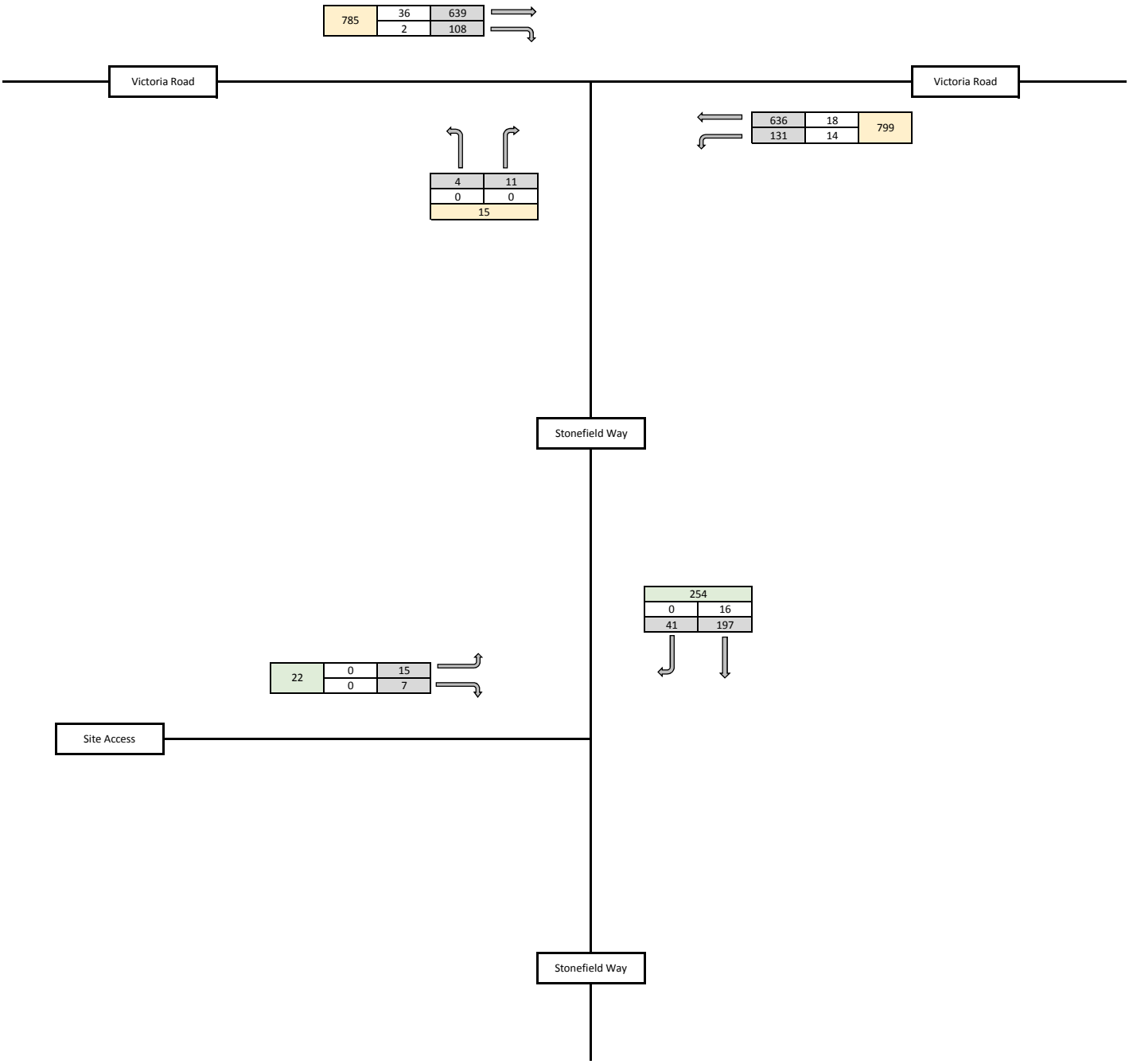


Key

0	Light Vehicles
0	HGV's
0	Total Vehicles (Junction 1)
1.031	2016 TEMPRO Growth

Stonefield Way, South Ruislip
Weekday Morning Peak Hour (08:00 - 09:00) - 2016 Baseline + Permitted Open A1 Scenario
Traffic Flows

Figure 8.4

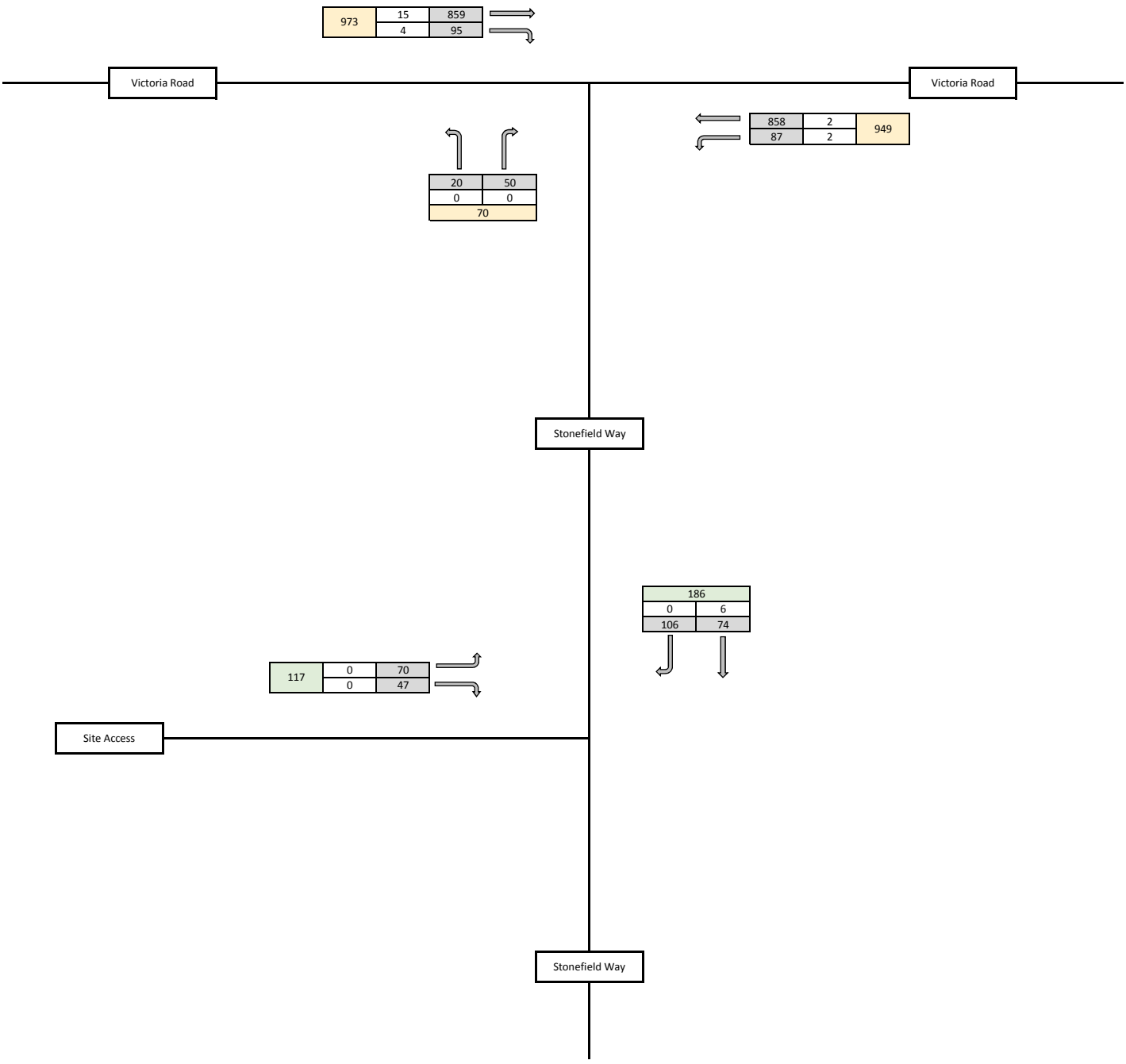


Key

0	Light Vehicles
0	HGV's
0	Total Vehicles (Junction 1)

Stonefield Way, South Ruislip
Weekday Eveing Peak Hour (17:00 - 18:00) - 2016 Baseline + Permitted Open A1 Scenario
Traffic Flows

Figure 8.5

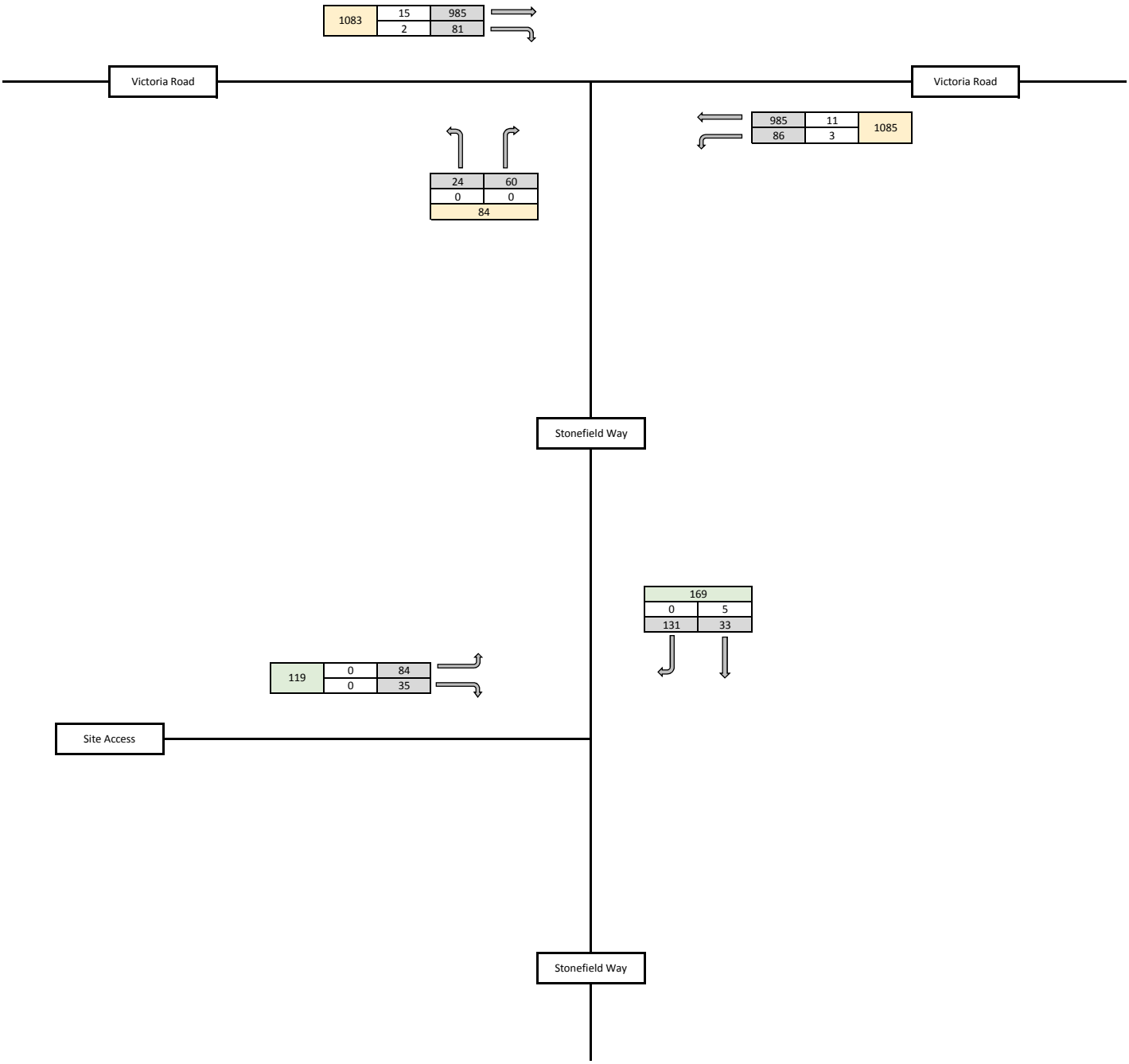


Key

0	Light Vehicles
0	HGV's
0	Total Vehicles (Junction 1)

Stonefield Way, South Ruislip
Saturday Peak Hour (14:00 - 15:00) - 2016 Baseline + Permitted Open A1 Scenario
Traffic Flows

Figure 8.6

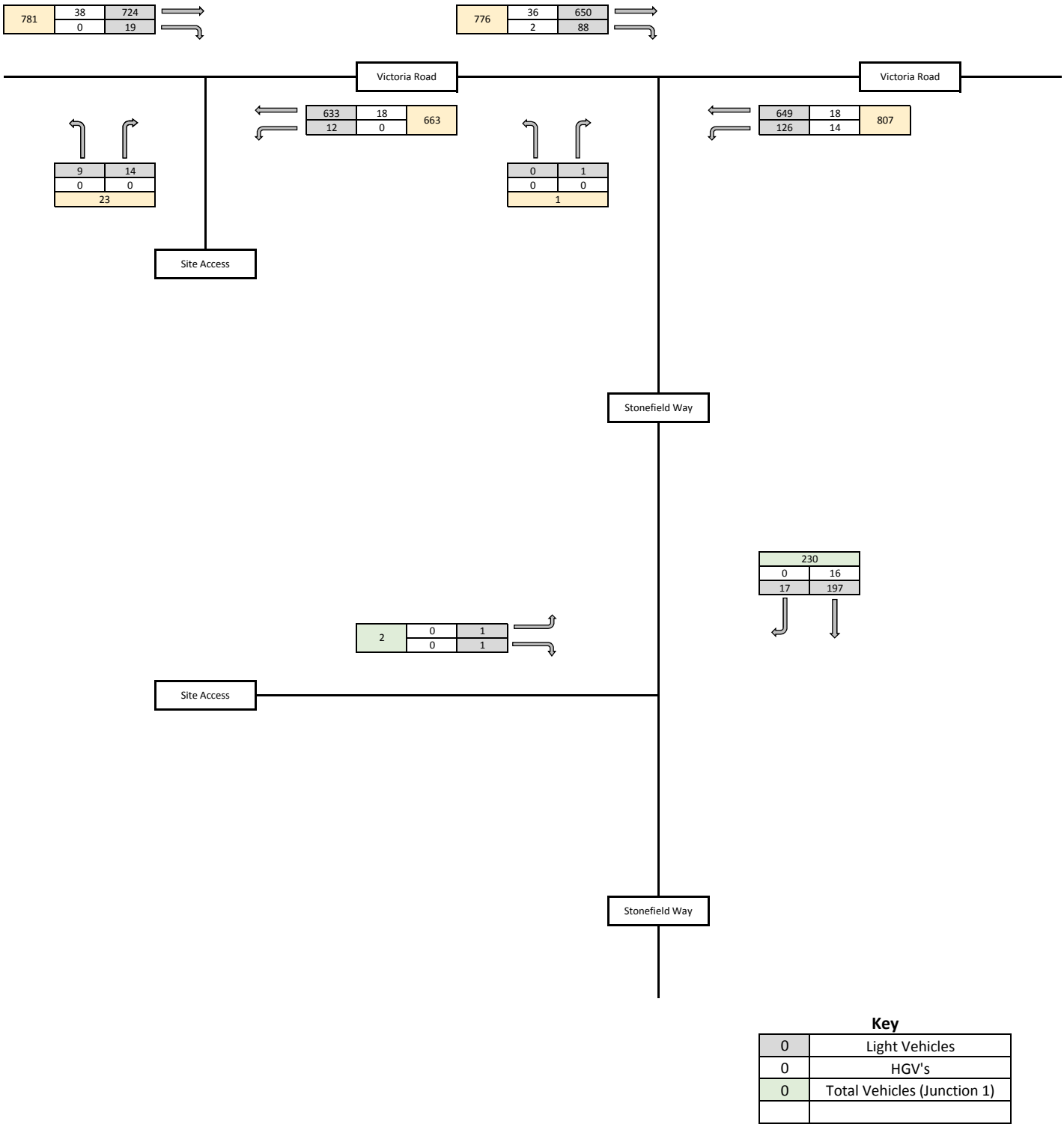


Key

0	Light Vehicles
0	HGV's
0	Total Vehicles (Junction 1)

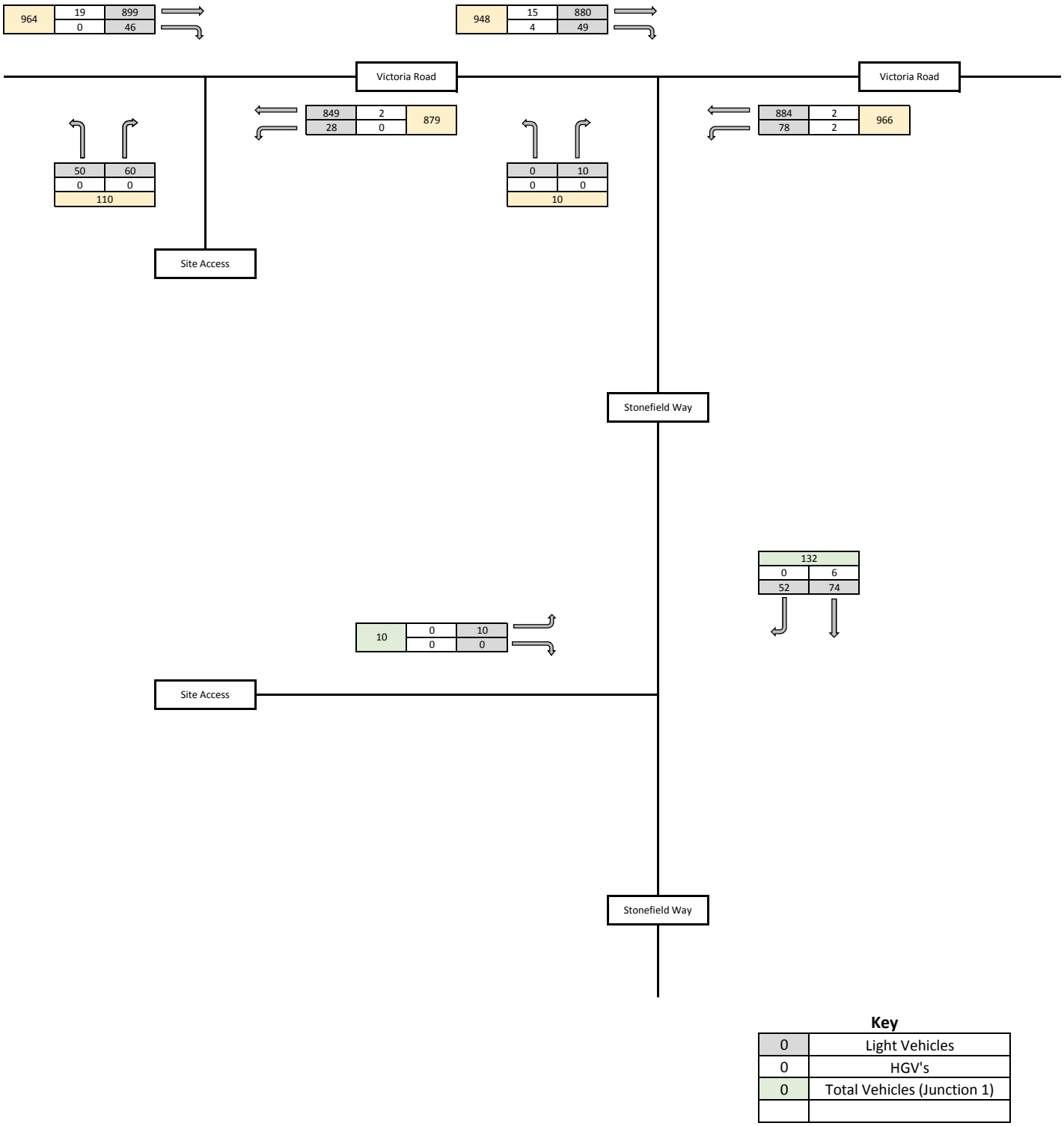
Stonefield Way, South Ruislip
Weekday Morning Peak Hour (08:00 - 09:00) - 2016 Baseline + Permitted Open A1 Use + Proposed NFR Traffic Flows

Figure 8.7



Stonefield Way, South Ruislip
Weekday Evening Peak Hour (17:00 - 18:00) - 2016 Baseline + Permitted Open A1 Use + Proposed NFR Traffic Flows

Figure 8.8



Stonefield Way, South Ruislip
Saturday Peak Hour (14:00 - 15:00) - 2016 Baseline + Permitted Open A1 Use + Proposed NFR Traffic Flows

Figure 8.9