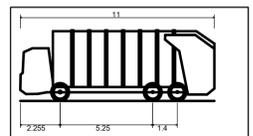




DO NOT SCALE OFF THIS DRAWING



11m Refuse Vehicle  
 Overall Length 11.000m  
 Overall Width 2.500m  
 Overall Body Height 4.000m  
 Min Body Ground Clearance 0.366m  
 Track Width 2.450m  
 Lock to lock time 4.00s  
 Kerb to Kerb Turning Radius 8.750m

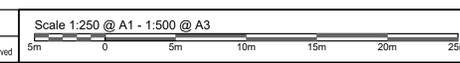
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By	Chkd	Appr	By	Chkd	Appr	Date
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Rev	Comment		By	Chkd	Appr	Date
Current Revision						
P01	FOR INFORMATION		CDT	EJ	EJ	28.10.20
Rev	Comment		By	Chkd	Appr	Date

**S2 - FOR INFORMATION**  
**CAMBRIDGE ROAD (RBK) LLP**

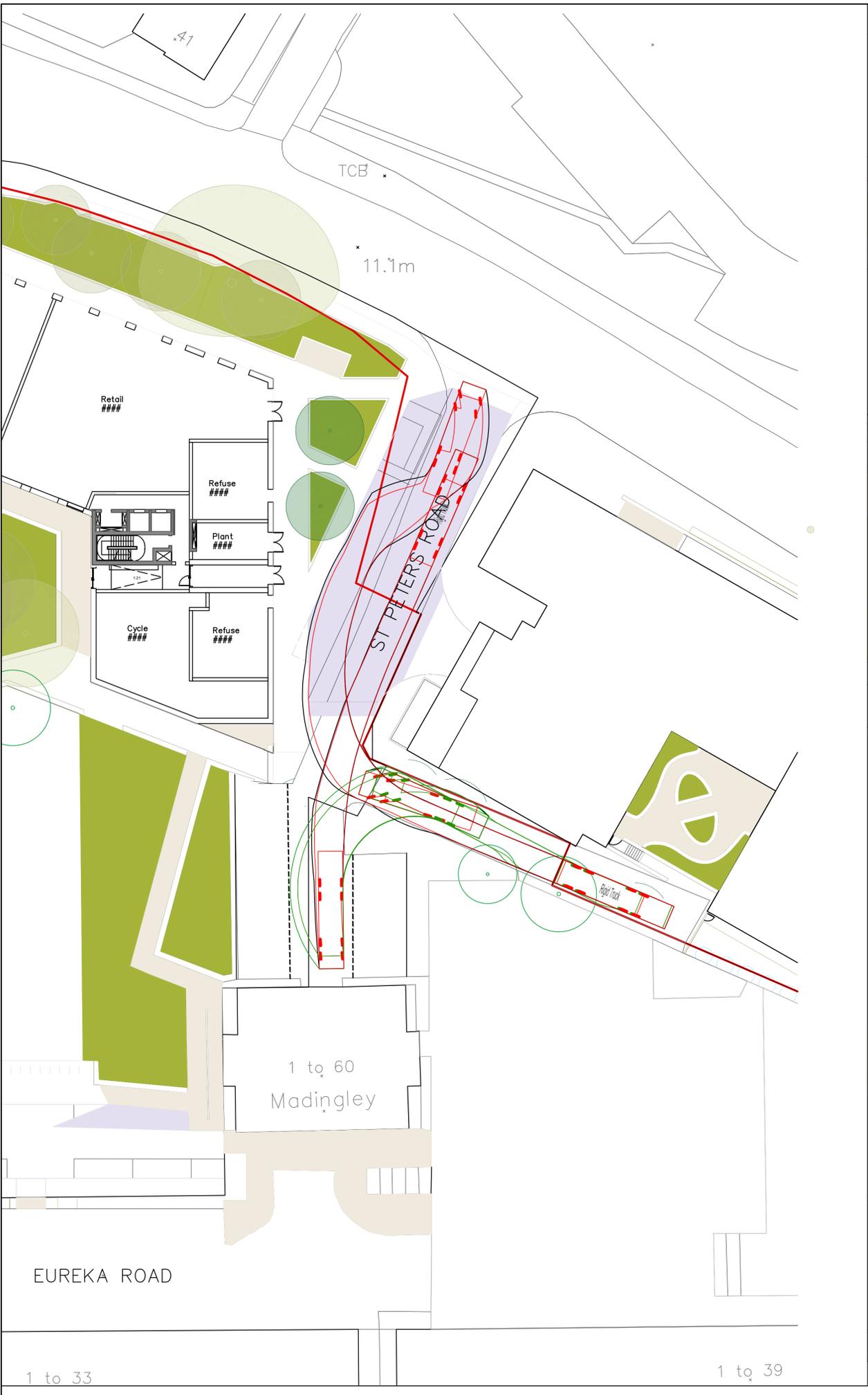


Project: **CAMBRIDGE ROAD ESTATE, KINGSTON**  
 Drawing Title: **BLOCK C 11m REFUSE**

Markides Associates reference: 191577-MA-XX-XX AS SHOWN  
 19157-MA-XX-DR-C-0108 - P01



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FTA Design HG Rigid Vehicle (1998)

- Overall Length 10.000m
- Overall Width 2.500m
- Overall Body Height 3.645m
- Min Body Ground Clearance 0.440m
- Track Width 2.470m
- Lock to lock time 3.00s
- Kerb to Kerb Turning Radius 11.000m

Rigid Truck

- Overall Length 12.000m
- Overall Width 2.500m
- Overall Body Height 3.928m
- Min Body Ground Clearance 0.412m
- Track Width 2.471m
- Lock to lock time 6.00s
- Kerb to Kerb Turning Radius 11.900m

Revision History						
Rev	Comment	By	Chkd	Appr	Date	
P01	FOR INFORMATION	CDT	EJ	EJ	28.10.20	
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Rev	Comment	By	Chkd	Appr	Date	

**S2 - FOR INFORMATION**

**CAMBRIDGE ROAD (RBK) LLP**

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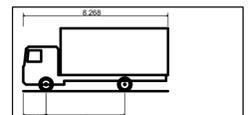
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Project: CAMBRIDGE ROAD ESTATE, KINGSTON

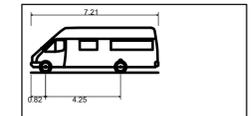
Drawing Title: BLOCK C 10m AND 12m RIGID



DO NOT SCALE OFF THIS DRAWING



7.5t Box Van (2016)  
 Overall Length 8.268m  
 Overall Width 2.300m  
 Overall Body Height 3.575m  
 Min Body Ground Clearance 0.371m  
 Track Width 2.175m  
 Lock to lock time 4.00s  
 Kerb to Kerb Turning Radius 7.500m



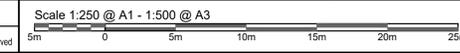
7.5t Panel Van  
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 Overall Width 2.192m  
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 Kerb to Kerb Turning Radius 7.400m

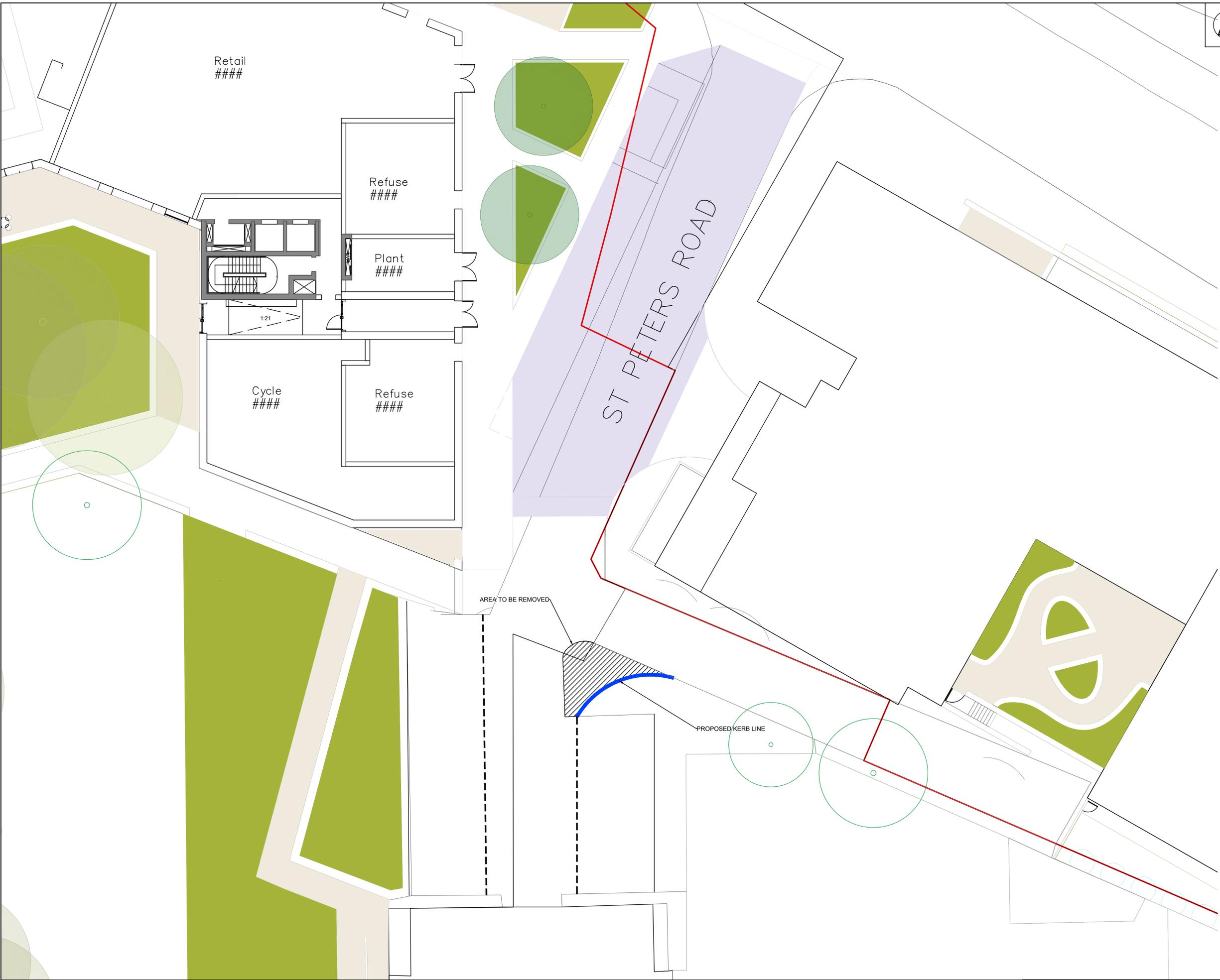
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P02	REALIGNED KERB	CDT	EJ	EJ	12.11.20
P01	FOR INFORMATION	CDT	EJ	EJ	06.10.20
Current Revision					
P02	REALIGNED KERB	CDT	EJ	EJ	12.11.20
Rev	Comment	By	Chkd	Appr	Date

**S2 - FOR INFORMATION**  
**CAMBRIDGE ROAD (RBK) LLP**



Project  
**CAMBRIDGE ROAD ESTATE,  
 KINGSTON**  
 Drawing Title  
**BLOCK C BOX AND PANEL VAN**





Revision History						
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P01	FOR INFORMATION					30.10.20
Rev	Comment	By	Chkd	Appr		Date

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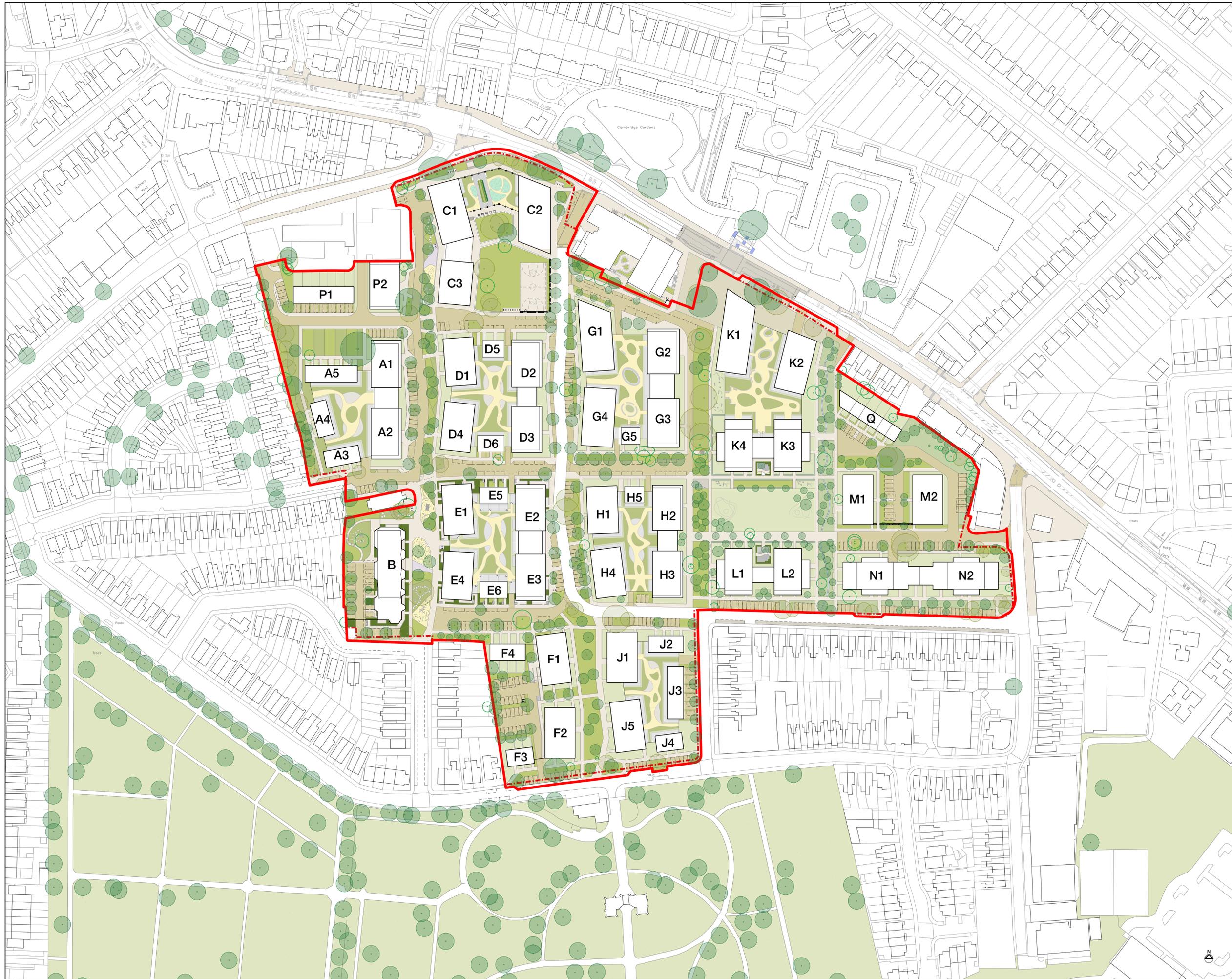


Project  
**CAMBRIDGE ROAD ESTATE,  
 KINGSTON**

Drawing Title  
**ST PETER ROAD REALIGNMENT**

# APPENDICES

# APPENDIX A – ILLUSTRATIVE MASTERPLAN



**General Notes**  
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 Contractors must ensure that cross referenced drawings and specifications noted on these drawings are checked on a regular basis to ensure that the latest revisions are used.



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 London W5 5SL

**Architect**  
 Patel Taylor  
 48 Rawstorne Street  
 London  
 EC1V 7ND

**Site Boundary**  
 - - - - Title boundary  
 - - - - Planning boundary



**Issue Record**

	By	Chk	Date
P24 For information	TS	RM	23.10.2020
P23 Tracking and access	TS	RM	15.10.2020
P22 Parking and additional trees retained	TS	TS	12.10.2020
P21 Tracking amendments	TS	TS	01.10.2020
P20 Title boundary added	NE	NE	07.09.2020
P19 For information	TS	TS	02.09.2020
P18 Planning boundary removed	NE	RM	12.08.2020
P17 Vehicle access amendments	TS	RM	04.08.2020
P16 For information	TS	RM	20.07.2020
P15 For information	EP	NE	14.05.2020

**Title**  
 Proposed masterplan

**Project**  
 Cambridge Road

**Scale**  
 1:1000 @ A1      1:2000 @ A3

**Status**  
 For information

**Drawing Number**      **Revision**  
 503-PTA-MP-RF-DR-A-1201      P24

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## APPENDIX B – PLANNING POLICY

### A1 Overview

This section identifies planning policy that is relevant to the application and describes how they are relevant to the proposed development.

### A2 National Policy

#### A2.1 National Planning Policy Framework

The National Planning Policy Framework (NPPF) as of July 2019 sets out Government planning policy, provides a framework within which local planning policies should be produced, and is a material consideration in planning decisions.

With regards to transport, the NPPF states that: *“Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.”*

Paragraph 110 continues that applications for development should:

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

Paragraph 111 states that: *“All developments that will generate significant amounts of movement should be required to provide a travel plan and should be supported by a transport statement or transport assessment.”*

### A3 Regional & Local Policy

#### A3.1 The London Plan (2016)

The London Plan sets out the integrated economic, environment, transport, and social framework for the development of London over the next 20-25 years. The London Plan was adopted in January 2011, and has subsequently been revised a number of times, with the most recent being the Minor Alterations to the London Plan 2015, which were published in March 2016.

Specific transport policies are described within Chapter 6 of the London Plan. Without reproducing the detailed content of each policy, integrating transport and development is the central theme, with an aspiration to encourage development that reduces the need to travel, especially by car, and locating developments that generate high levels of trips at locations with either current or committed high levels of accessibility to public transport, cycling and pedestrian networks.

The London Plan identifies that development proposals should support sustainable travel through the inclusion of appropriate cycle parking and facilities, high quality pedestrian environments and details car parking standards for various forms of land use.

Relevant Policies are summarised below:

#### **Policy 6.3 – Assessing effects on development on transport capacity.**

- Requires TA's to support development in accordance with TfL's Transport Assessment Best Practice Guidance for major planning applications; and
- Development proposals should ensure that impacts on transport capacity and the transport network, at both a corridor and local level, are fully assessed. Developments should not adversely impact safety on the transport network.

#### **Policy 6.9 – Cycling.**

- Developments should provide secure, integrated and convenient cycle parking in accordance with the London Cycle Design Standards.

#### **Policy 6.10 – Walking.**

- Pedestrian environment should be high quality with an emphasis on the quality of the pedestrian and street space by referring to Transport for London's Pedestrian Design Guidance.

#### **Policy 6.13 - Parking.**

- Parking should be in accordance with the maximum standards.
- In addition, all developments in London must ensure that 1 in 5 spaces provide electrical charging points to encourage the uptake of electric vehicles.
- Provide parking for disabled people in line with the parking standards.
- Meet minimum cycle parking standards.
- Provide the need for businesses for delivery and servicing.

#### **Policy 6.14 - Freight.**

- Opportunities to minimise congestion, impacts and road safety should be sought. DSP's, CLP, and integration with TP's is required.
- Developments that generate high numbers of freight movements should be located close to major transport routes.
- Increase the use of the Blue Ribbon Network for freight transport will be encouraged.

## A3.2 The New Draft London Plan (2019)

The Draft New London Plan has been developed and public consultation on this document closed on 2<sup>nd</sup> March 2018. The document is expected to be adopted towards the end of 2020.

Chapter 10 of this document deals with transport and Policy T1 sets the overarching approach to transport strategy for the city. Policy T1 states that development Plans and development proposals should support the delivery of the Mayor's strategic target of 80 per cent of all trips in London to be made by foot, cycle, or public transport by 2041, and the proposed transport schemes set out in Table 10.1.

Policy T1 continues, *"All development should make the most effective use of land, reflecting its connectivity and accessibility by existing and future public transport, walking and cycling routes, and ensure that any impacts on London's transport networks and supporting infrastructure are mitigated."*

The Draft London Plan additionally includes a new concept; 'Healthy Streets'. These are defined by 10 indicators as follows:

- Pedestrians from all walks of life.
- Easy to cross.
- Shade and shelter.
- Places to stop and rest.
- Not too noisy.
- People choose to walk, cycle, and use public transport.
- People feel safe.
- Things to see and do.
- People feel relaxed.
- Clean air.

Policy T2 states that development proposals should demonstrate how they will deliver improvements that support the ten Healthy Streets Indicators in line with Transport for London guidance; reduce the dominance of vehicles on London's streets whether stationary or moving; and be permeable by foot and cycle and connect to local walking and cycling networks as well as public transport.

'Policy T4 – Assessing and mitigating transport impacts' states that development plans and development proposals should reflect and be integrated with current and planned transport

access, capacity and connectivity. This requires TA's to focus on the healthy streets approach, also requires TA & other supporting documents to be submitted with development proposals.

'Policy T5 – Cycling' and 'Policy T6 – Car Parking' states that parking should be provided in accordance with parking standards set out in table 6.3 of the new London plan.

Finally, Policy T7 - Deliveries, servicing and construction states that developers are required to facilitate deliveries on-site (off-street) and allow for deliveries outside of peak hours and in the evening or overnight.

## **A4 Local Policy**

### **A4.1 Kingston Local Plan 2015-2030**

Kingston Core Strategy includes both strategic and development management policy guidance. The document is a guide for developments over the next 15 years to ensure that all new developments are sustainable and reduce the reliance on the private car.

Relevant local plan policies include:

#### **Policy DM8 – Sustainable Transport for New Development**

- Require robust & effective travel plans.
- Prioritise needs of pedestrians and cyclists first and provide facilities for cyclists including showers, lockers and secure, convenient cycle parking, in accordance with minimum standards.
- Require development to make contributions towards sustainable transport improvements and initiatives in line with SPD/CIL.

#### **Policy DM9 – Managing Vehicle Use for New Development.**

- Require TA's to be submitted in line with TfL guidance.
- Developments should comply with parking standards and restrict parking permits for new residents.
- Provide car club and electric vehicle infrastructure where appropriate in accordance with minimum standards.

### **A4.2 Sustainable Transport SPD (May 2013)**

This SPD has been published to ensure that development in the Borough does not adversely impact on, and where possible, enhances the safety, efficiency and sustainability of the transport network. The SPD does not create policy, rather it helps to guide the implementation of the Core Strategy policies and will be used to consider the sustainable transport aspects of planning applications.

In terms of car parking, the SPD directs the provision of car parking standards back to the London Plan, under table 6.13.

However, the document does set out the cycle parking standards for new developments, these are summarised as follows:

- **A1 Food Retail:** -minimum of 2 spaces + 1 space per 350m<sup>2</sup>
- **A1 Non-Food Retail:** - minimum of 2 spaces + 1 space per 500m<sup>2</sup>
- **A3 Restaurants + Cafes:** - 1 space per 20 seats with a minimum of 2 spaces
- **C3 Dwellings:** - 1 space per 1-2 bed unit; 2 spaces per 3 or more bed unit

The car parking standards that are to be followed at the development site have been set out in **Table 9.2:**

**Table 9.2 Car Parking Standards**

C3	Maximum Parking Standards
1-2 Bedrooms	Less than 1 per unit
3 Bedrooms	Up to 1.5 per unit
4 or more Bedrooms	Up to 2 per unit

### A4.3 Cambridge Road Estate – Strategic Development Brief

The council’s vision for the redevelopment of Cambridge Road Estate is drawn from the residents needs and aspirations, the project team’s analysis of the estate – people and place and the council’s vision for Kingston as a whole. This document has several visions and objectives which are to be incorporated with the development. One of these visions is to *“Promote sustainable forms of travel and healthy living.”*

The accompanying objectives are as follows:

- A car-lite scheme with low car parking ratio.
- Provision of supporting infrastructure for cycle use across the estate, including potential local cycle route through the estate.
- Provision of supporting infrastructure for car share and car hire across and where appropriate in the vicinity of the estate.
- Comprehensive package of measures to discourage car ownership and usage. Encourage use of walking, cycling and public transport.
- Provision of supporting infrastructure for Go Cycle route along Cambridge Road.
- Implement principles of Mayor’s ‘Healthy Streets’ and ‘Liveable Neighbourhood’ initiative.
- Make representations to the local transport authority and TfL to invest in the public transport accessibility of the local area.

# APPENDIX C – SCOPING NOTES

# Transport Assessment Scoping Note

Cambridge Road Estate

18 June 2020

Prepared for  
Countryside Properties



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Doc Number: SN01

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1	Draft	JC/ EJ	MH	EJ	MH	

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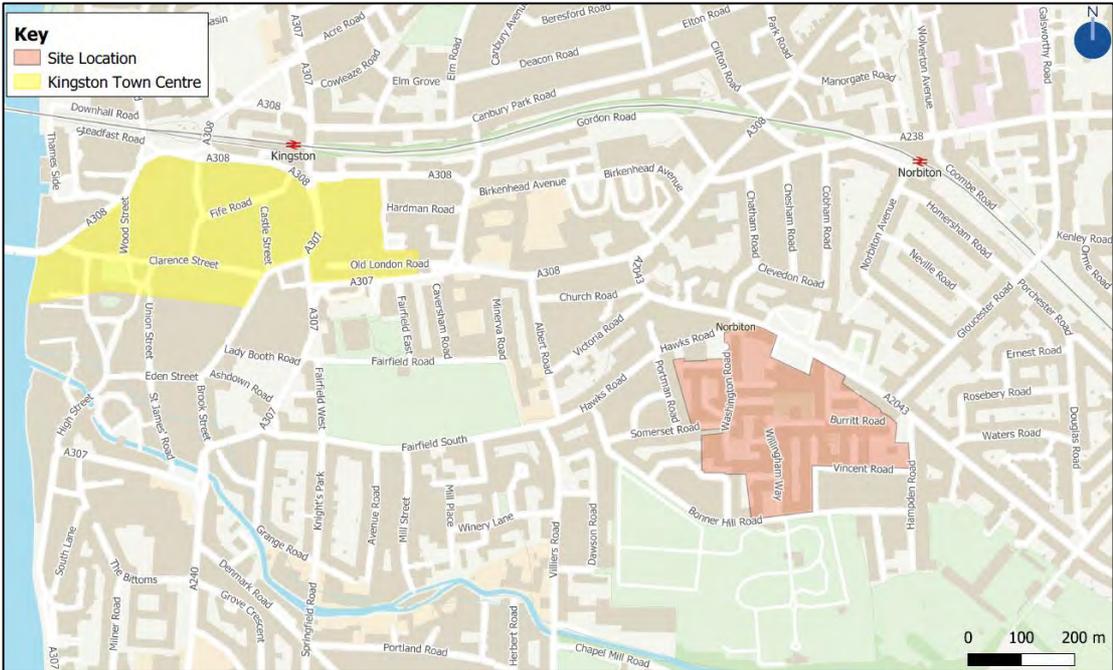
Appendix A – Current masterplan
Appendix B – TRICS Data

# 1. Introduction

## 1.1 Preamble

- 1.1.1 Markides Associates (MA) has prepared this Scoping Note on behalf of Countryside Properties PLC (CPPLC), hereafter referred to as the applicant, in support of a forthcoming planning application for the redevelopment of the Cambridge Road Estate in Kingston. The existing site was originally developed over 50 years ago and provides approximately 832 dwellings over 8.66 hectares, CPPLC are seeking planning permission to redevelop the whole estate for circa 2100 new homes and associated uses.
- 1.1.2 The development is a joint venture between RBK and CPPLC. The GLA is also providing funding for the redevelopment.
- 1.1.3 The site falls within the administrative authority area of the Royal Borough of Kingston Upon Thames (RBK), who act as both local planning authority and highways authority. Given its size and scale the scheme will be referable to the Mayor of London, the Greater London Authority (GLA) and TfL who are a statutory consultee.
- 1.1.4 A location plan is included as **Figure 1.1** as an extract and is reproduced to scale at the end of this report.

**Figure 1.1 Site Context Plan**



- 1.1.5 As shown above, the site is located to the south of the A2043 (Cambridge Road), the site also lies to the north of Kingston Cemetery and Crematorium. The site is within walking distance of both Kingston Railway Station and Norbiton Railway Station. Kingston Railway Station is

approximately 1km north west of the site, whilst Norbiton Railway Station is approximately 650m to the north east of the site.

- 1.1.6 This scoping note has been produced as part of the pre-application process for consultation with RBK Highways Department, This note sets out the envisaged content and assessment methodologies of the Transport Assessment (TA) which will be submitted in support of the outline planning application for the development.

## **1.2 Pre-Application Discussions with TfL**

- 1.2.1 An Initial Screening Meeting with TfL / MA / CPPLC / RBK was held on the 3<sup>rd</sup> October 2019 to discuss the proposals. A summary of that meeting is provided below.

- TfL are satisfied with existing bus stop locations, but infrastructure should be reviewed.
- TfL suggested diverting the K4 into the site (Post meeting note – TfL have now confirmed that diverting the K4 is not viable, and they have withdrawn the request).
- TfL may request some S106 funding for an extension of the Go Cycle route to New Malden.
- TfL agreed the masterplan improved the permeability of the site.
- TfL are satisfied with a maximum parking ratio of 0.4.
- TfL are happy for a PTAL manual calculation to include the link through Cambridge Gardens.
- TfL requested Active Travel Zones to Kingston Town Centre, Norbiton Station and Kingston Hospital.
- Collision Analysis should look to identify improvements to achieve Vision Zero.
- TfL do not require any highway modelling.
- RBK requested that no dedicated parking be provided for the commercial uses.

## **1.3 Pre-Application Discussions with RBK**

- 1.3.1 An initial meeting between RBK / MA / CPPLC was held on the 6<sup>th</sup> September 2019. A summary of that meeting is provided below:

- RBK advised that a parking ratio of 0.4 should be viewed as a minimum (new residents would not be able to apply for a permit).
- Car Park Management Plan would be required to support application.
- CPZ – dependent upon extent of adoption. If additional CPZ bays are required, then S106 for CPZ monitoring and implementation would be required.
- RBK will not object to principle of adoption – commuted sums will be required via S106 agreement.
- RBK support cycle parking in accordance with draft London Plan standards.
- RBK support overall strategy for site accesses.
- RBK support strong north / south routes through the site.
- RBK support strategy to restrict rat running.

- Hawks Rd junction not supported unless a temporary arrangement for construction traffic.
- Bus Diversion – TfL have since confirmed that they no longer wish to divert any existing services into the site.
- RBK support principle of including Cambridge Gardens in manual PTAL calculation.
- RBK agreed TA to focus on the outline ‘end state’ masterplan, with detailed points to be assessed in each reserved matters application.
- Junction modelling to be discussed at next pre-app meeting.

## **2. Policy Guidance and Context**

### **2.1 Transport Policy**

2.1.1 National and Local Policy will be discussed to show that the development accords with appropriate guidance. The following is a list of guidance documents the TA will refer to:

- National Planning Policy Framework (NPPF)
- London Plan
- Draft London Plan
- TFL Healthy Streets for London
- Kingston Local Plan 2015-2030

2.1.2 The TA will review all the appropriate national and local policy relevant to the site and ensure the development accords with these guiding principles.

2.1.3 The TA will be prepared in line with TfLs latest Healthy Streets guidance (June 2019).

### 3. The Site and Surroundings

#### 3.1 Preamble

3.1.1 The TA will provide an overview of the baseline situation, including the following:

- An overview of the local highway network, key linkages, junctions, and known issues including congestion, collisions, and any committed road works for improvements.
- A detailed description of the accessibility by foot and by cycle and a high-level analysis of the quality of the baseline infrastructure.
- A detailed description of the accessibility of local facilities and amenities by sustainable modes, primarily walking and cycling.
- A detailed description of the accessibility of the site by local public transport (bus and rail).
- A review of collision data in the vicinity of the site.

#### 3.2 Site Location

3.2.1 The site is located off Cambridge Road, Kingston Upon Thames, KT1 3JB ('the site'), which is positioned to the west of the A2043, within walking distance of Kingston Town Centre and Norbiton. A site location plan is included as **Figure 3.1** as an extract below and included to scale at the end of this report.

Figure 3.1 Site Location Plan



3.2.2 The area is currently a housing estate, made up of approximately 832 residential units in the form of both flats and terrace housing. The development site is enclosed by the A2034 Cambridge Road to the east, Hawks Road to the north, Portman Road/Piper Road to the west

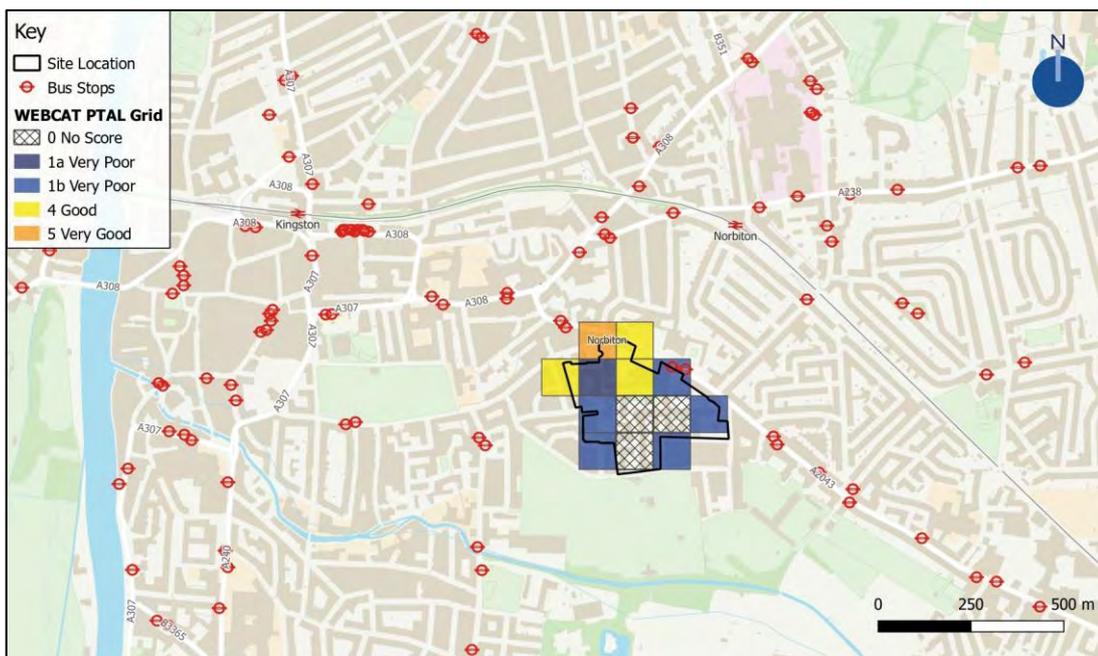
and finally Bonner Hill Road to the south of the site, as well as Kingston Cemetery and Crematorium.

### 3.3 Public Transport

#### Existing Public Transport Accessibility Level (PTAL)

- 3.3.1 Public Transport Accessibility Levels (PTALs) are a theoretical measure of accessibility of a given point to the public transport network, considering walk access time and service accessibility. All bus routes within 640m and underground/rail stations within 960m are considered and aggregated with their frequency to deliver a rating for a specific point. Any transport services beyond these distances are disregarded.
- 3.3.2 A PTAL score ranges between 1a and 6b, where 1a represents a poor level of accessibility and 6b an excellent level. The PTAL rating of the site has been assessed using the TfL land use planning PTAL assessment tool WebCAT which shows the sites PTAL ranges from 0 to 5 as shown in **Figure 3.2**.

**Figure 3.2 TfL WebCAT PTAL Calculation**



Source: TfL WebCAT tool.

#### Bus Accessibility

- 3.3.3 The bus stops closest to the development site are situated on the A2043 Cambridge Road. These are 550m from the centre of the site, or a 7-minute walk and are served by bus routes 131 and N87. Additional bus stops are located to the north of the site along the A308 London Road, which are 700m from the centre of the site, or an 8-minute walk. The London Road bus stop is served by 57, 85, 213, 371, K2, K3, K4, and K5 bus routes.

## Rail Facilities

- 3.3.4 The nearest railway station is Norbiton Railway Station which is approximately 1km north east of the railway station, or a 13-minute walk from the site. The site is also within walking distance of Kingston Railway Station which is located 1.4km to the north west of the development site which is around an 18-minute walk. Both Railway Stations provide access to all stops to London Waterloo.

## 3.4 Local Highway and Parking

- 3.4.1 The TA will detail the existing highway conditions in full. A parking beat survey is also being undertaken, the results of which will be provided within the TA.

## 3.5 Traffic Surveys

- 3.5.1 Automatic Traffic Counts (ATCs) undertaken between the 16/07/19 and the 22/07/19. Some site had to be re-surveyed due to issues and these occurred between the 09/09/19 and the 15/09/19. They were used to gain an understanding of existing vehicle movement into and out of the site at various points which are summarised in **Table 3.1**.

**Table 3.1 Weekday Average Trip Generation - ATC Data at Site Entrances**

ATC Location	AM Peak			PM Peak			24Hr		
	In	Out	Total	In	Out	Total	In	Out	Total
Somerset Road	42	45	87	36	41	77	567	581	1148
St Peters Road	11	13	24	12	9	21	163	188	351
Burritt Road	24	36	60	33	30	62	460	449	910
Vincent Road	10	27	37	18	15	33	215	256	471
Cambridge Grove Road	4	1	4	5	2	7	78	41	119
Willingham Way	9	25	34	22	15	37	249	249	498
<b>Total</b>	<b>99</b>	<b>147</b>	<b>245</b>	<b>125</b>	<b>112</b>	<b>237</b>	<b>1732</b>	<b>1764</b>	<b>3497</b>

- 3.5.2 The above table shows that the level of vehicular activity in the AM and PM peak is approximately 245 trips in the AM peak and 237 in the PM peak with 3497 across the day.

## Site Trip Distribution

- 3.5.3 **Table 3.2** summarises the sites vehicular trip distribution from the ATC's across the existing site.

**Table 3.2 Existing Site Trip Distribution**

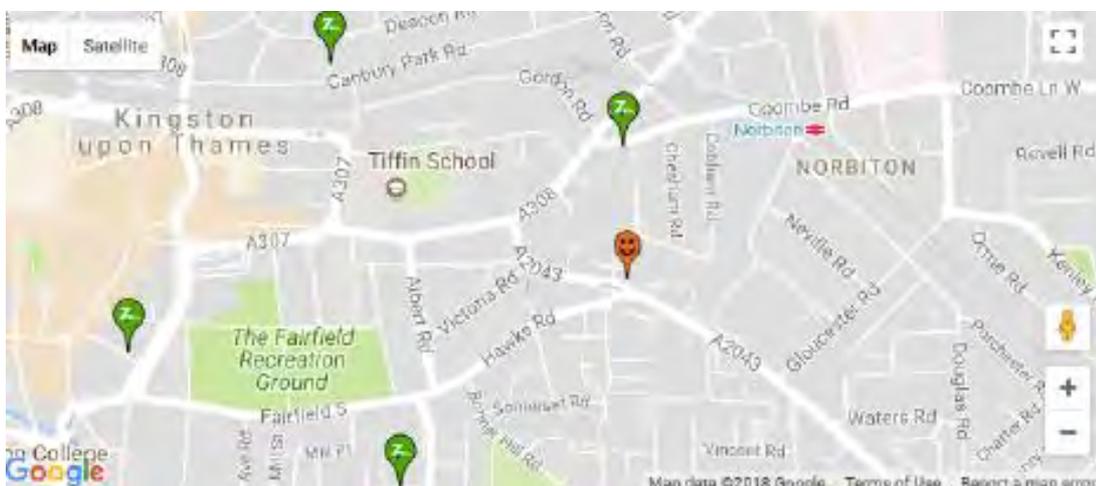
ATC Location	Trip Distribution		
	AM Peak	PM Peak	Daily
Somerset Road	35%	32%	34%
St Peters Road	10%	9%	10%
Burritt Road	24%	26%	26%
Vincent Road	15%	14%	14%
Cambridge Grove Road	2%	3%	3%
Willingham Way	14%	16%	15%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

3.5.4 The table above shows that Somerset road has 34% of the daily estate traffic with Burritt Road accommodating 26%.

### 3.6 Car Clubs

3.6.1 There are car clubs located within close proximity as indicated in Image 3.1

**Image 3.1 Zipcar Locations**



Source: Zipcar

3.6.2 The car club space is operated by ZipCar and the car club allows for cars and vans to be reserved at short notice via the internet in order to hire the vehicle for the time and distance that is required. This car club scheme is available at all times, making it convenient and a sustainable travel choice at any time of the day.

### 3.7 Local Characteristics

3.7.1 In order to establish local travel characteristics, the 2011 Census has been queried for method of travel to work data for the Middle Super Output Area (MSOA) Kingston Upon Thames 005, which includes this site. The results of this search are included in **Table 3.3** below.

**Table 3.3 Method of Travel to work Census Information - Residents**

Method of Travel to Work	Percent
Underground, metro, light rail or tram	4%
Train	23%
Bus, minibus or coach	14%
Taxi	0%
Motorcycle, scooter or moped	1%
Driving a car or van	27%
Passenger in a car or van	1%
Bicycle	6%
On foot	23%
Other method of travel to work	0%
<b>Total</b>	<b>100%</b>

3.7.2 The table above demonstrates that in the locality of the site, some 27% of people travelling to work via the use of the private car, with 42% of people travelling to work via public transport. There is a total of 28% of people travelling to work walking and cycling.

## 4. Developments Proposals

### 4.1 Preamble

4.1.1 The masterplan is currently under development; however, the application will be a hybrid application for outline consent for the whole site and detailed planning permission for the first Phase.

### 4.2 Development Proposals

4.2.1 The proposed level of development is summarised in **Table 4.1**.

**Table 4.1 Proposed Development**

Land Use	Development Quantum
C3 – Residential	Circa 2100 Dwellings
A1-A3 – Retail	1115sqm
B1 – Workspace	680sqm
D1 – Community Uses	1177sqm

4.2.2 The TA will outline the full development proposals, including (where relevant):

- Land use mix and schedule of accommodation.
- Phasing of the development.
- Vehicular accesses.
- Parking arrangements.
- Pedestrian and cycle access.
- Cycle parking arrangements.
- Connectivity to the wider area.
- Servicing and delivery arrangements.

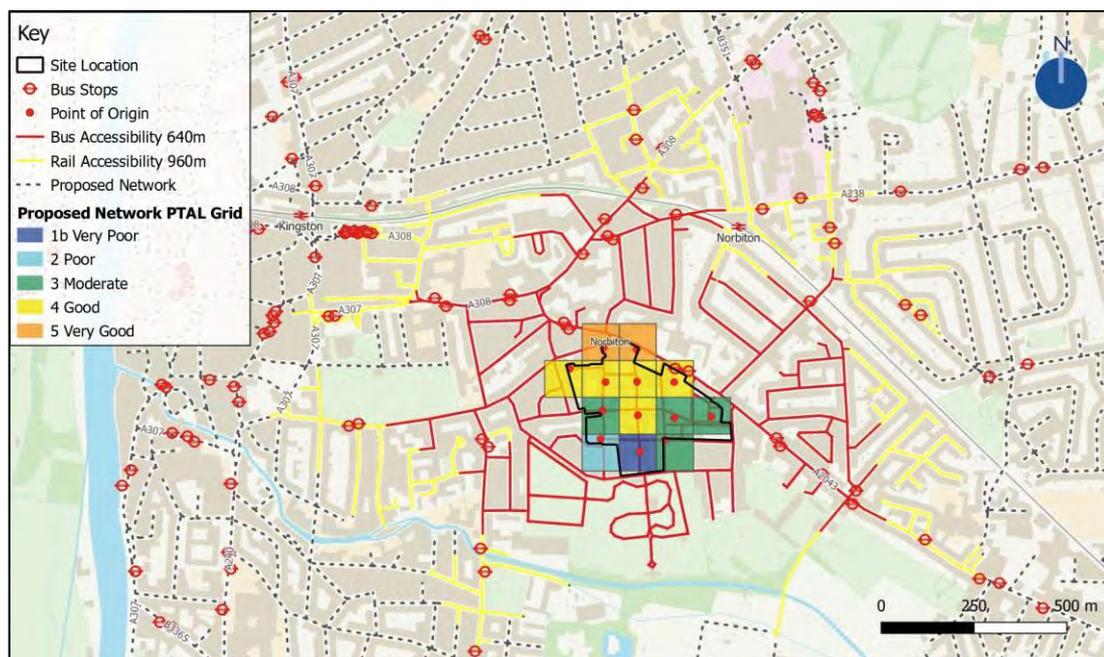
### 4.3 Pedestrian and Cycle Access

4.3.1 Pedestrian access to the site will be taken from several points onto the local highway network thereby creating a high level of permeability from the site to the surrounding area. The site has been designed in a grid pattern to allow maximum penetration within the site and to the surrounding areas. A copy of the current masterplan is provided in **Appendix A**.

### 4.4 Proposed Public Transport Accessibility Level (PTAL)

4.4.1 MA have undertaken a manual exercise and calculated the future PTAL rating of the site as shown in **Figure 4.2**, which excludes Crossrail 2.

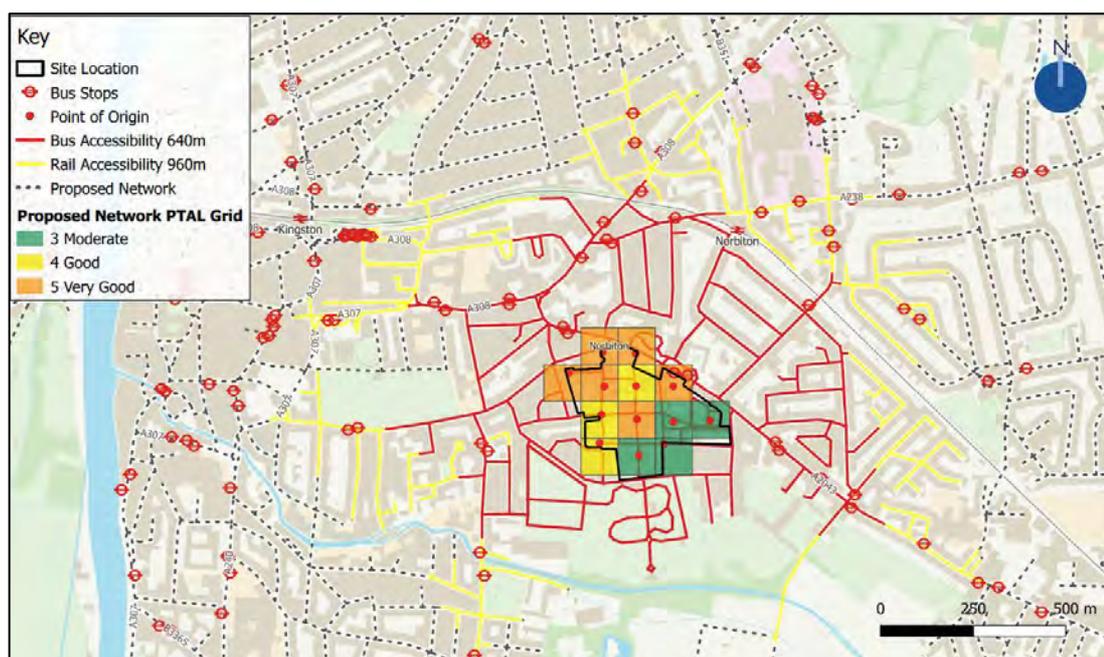
**Figure 4.1 PTAL of Proposed Cambridge Road Estate**



4.4.2 The above analysis shows that the masterplan significantly improves the PTAL of the site to between 1b and 5.

4.4.3 Following early screening discussions with TfL, they agreed that an assessment of the PTAL rating should include the existing route through Cambridge Park Gardens, the result of which is shown in **Figure 4.2**, which again excludes Crossrail 2.

**Figure 4.2 Proposed PTAL Rating Inc. existing link through Cambridge Gardens**



- 4.4.4 The future PTAL of proposed development including the existing link through Cambridge Gardens will significantly increase the accessibility of the site with the PTAL rating increasing to between 3 and 5. This confirms that the proposed development significantly increases the accessibility of the central and southern parts of the site as the site layout allows quicker access to existing bus stops as well as providing level walking routes for all people.

## **4.5 Car and Cycle Parking**

- 4.5.1 Car parking is proposed at a ratio of 0.4 spaces per dwelling, which is in accordance with the Draft London Plan. The level of disabled parking will be 10% of all spaces. This provision has been agreed in principle previously with RBK in earlier discussions.
- 4.5.2 The intention is that the development will be supported by the introduction of car share bays provided throughout the site, with the number to be confirmed in due course.
- 4.5.3 Cycle parking will be in accordance with the Draft London Plan.
- 4.5.4 Parking for the commercial uses will not be provided as these uses are considered to provide for local needs which can be accessed via active modes.

## **4.6 Vehicular Access**

- 4.6.1 The visibility requirements for the proposed access will meet with the Manual for Streets sight stopping distance requirements. Drawings of the proposed accesses to the site including the appropriate visibility splays and swept path analysis for vehicles will be provided within the TA.

## **4.7 Servicing, Delivery and Emergency Access**

- 4.7.1 Servicing, delivery and emergency access will be accommodated within the site. The proposed site layout has been designed to accommodate delivery vehicle and fire tender movements, such that they will be able to enter in a forward gear, turn around and exit in a forward gear.
- 4.7.2 In terms of refuse vehicle movement, a large refuse vehicle will also be able to enter and exit the site in a forward movement. Further details on this and vehicle swept path analysis will be provided within the TA and the accompanying Delivery and Servicing Plan.

## **4.8 Bus Diversion**

- 4.8.1 Following the initial screening meeting with TfL indicated that they wanted to divert the K4 bus route through the site.
- 4.8.2 Since that meeting TfL have confirmed in an email dated the 4<sup>th</sup> Dec 2019 that diverting a route would:

*“add time and thus dis-benefit to through passengers, to serve a community that would already have reasonable access to a route. They have also looked at running a route that runs through the western end of the site to the Cambridge Road end but this is unlikely to be feasible.”*

4.8.3 TfL stated it may be useful to provide two bus stand spaces within the site with a driver toilet facility to enable TfL to potentially run a different route in the future. At this stage it is not proposed to offer this for the following reasons:

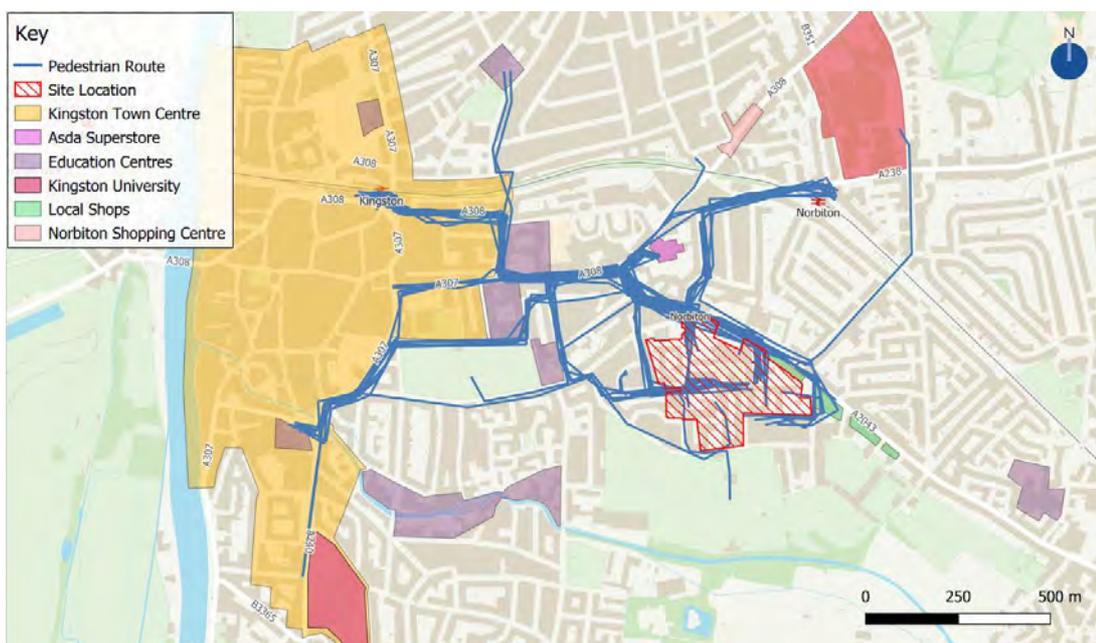
- Provision of two stands reduces the quality of the public realm
- Given the constraints of the site, providing this takes up a considerable amount of space.
- The masterplan significantly increases the accessibility of the site as demonstrated by the increase in the PTAL rating.

## 5. Active Travel Zone Assessment

### 5.1 ATZ Routes

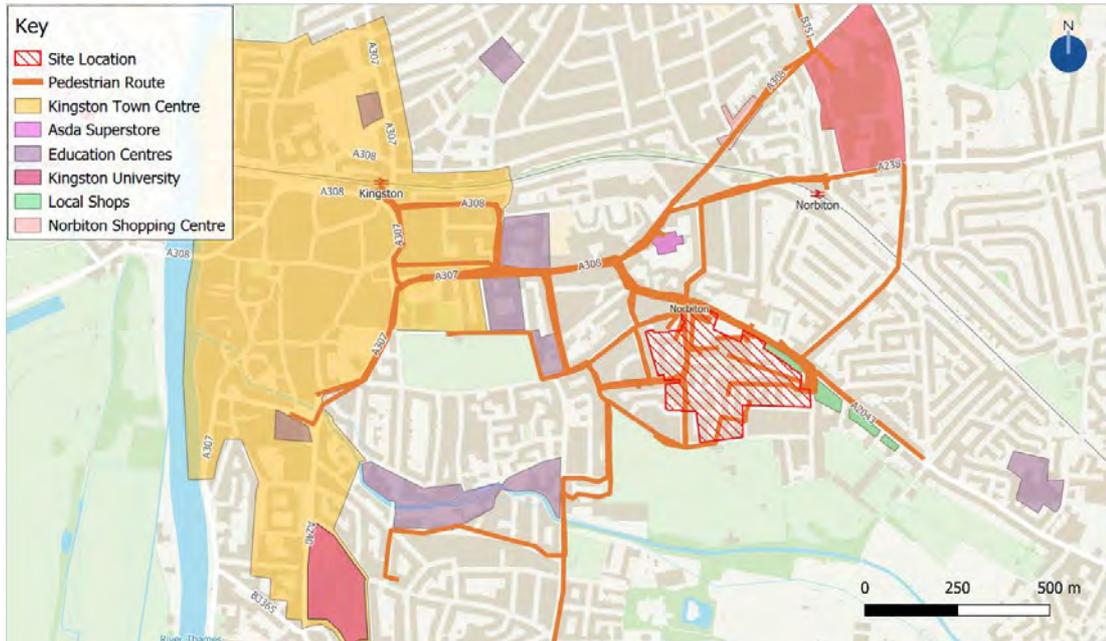
5.1.1 A pedestrian interview survey undertaken on the 28<sup>th</sup> and 30<sup>th</sup> November 2019. The survey entailed 5 interviewers questioning people in and around the estate to understand the routes people were taking on those days. **Figure 5.1** shows the routes members of the public took to various destinations on a weekday.

**Figure 5.1 Pedestrian Routeing (weekday)**



5.1.2 **Figure 5.2** shows the routes members of the public took to various destinations on a Saturday.

**Figure 5.2 Pedestrian Routeing (Saturday)**



5.1.3 In accordance with the TfL latest guidance for assessing new development and following the TfL screening meeting the TA will undertake a full Active Travel Zone assessment as part of the TA. This will include links to Kingston Town Centre, Norbiton Station and Kingston Hospital.

5.1.4 The proposed routes with the photo locations are shown in **Figure 5.3**.

**Figure 5.3 Proposed ATZ Routes**



## 6. Trip Generation

### 6.1 Existing Residential Trip Generation

6.1.1 In order to determine the existing and potential trip generation for residential development, survey data and existing levels of parking have been used. The ATC data outlined in **Table 3.1** includes Vincent Road and Cambridge Grove Road on which properties outside the site boundary exist. Therefore, to provide an accurate trip estimate for the site itself the from Vincent Road and Cambridge Grove Road have been excluded. The corresponding trip rates for the remaining ATC counts (which serve approx. 774 dwellings), and the likely trip generation for 832 dwellings is shown in **Table 6.1**.

**Table 6.1 Existing Vehicle Trip Rates and Generation (832 Units)**

ATC Location	AM Peak			PM Peak			24Hr		
	In	Out	Total	In	Out	Total	In	Out	Total
Vehicle Trip Rate	0.110	0.153	0.264	0.132	0.123	0.255	1.860	1.896	3.755
Site Trip Generation	92	128	220	109	103	212	1547	1577	3124

6.1.2 The above shows that for the existing site the trip generation is 220 vehicles in the AM peak, 212 vehicles in the PM peak and 3124 across the day.

6.1.3 However, the ATC's do not show a typical proportion of trips into or out of the site, which you would not normally expect for a residential development. Given the current lack of parking controls within the site, the high inbound trips in the morning is more than likely due to commuters and / or shoppers using the estate to park their cars to either access Kingston town centre or Norbiton Railway Station for an onward journey.

#### Existing Multi-Modal Trip Generation

6.1.4 In order to determine the multi-modal trip generation for the existing site, the TRICS database will be interrogated to provide a Total Person trip, which can then be used with the vehicular trips outlined above and the 2011 Census data. This will be provided to RBK in due course for agreement.

### 6.2 Proposed Residential Vehicular Trip Generation

6.2.1 The industry standard TRICS database has been interrogated to obtain a vehicular trip rate for the proposed development. Sites in Greater London made up of Private Flats, with a PTAL between 3 & 5, within the suburban area has been selected, with the corresponding trip rates and vehicular trip generation shown in **Table 6.2**, with the TRICS outputs available in **Appendix B**.

**Table 6.2 Proposed Vehicle Trip Rates and Generation (2101 Units)**

ATC Location	AM Peak			PM Peak			Daily (0700-2100)		
	In	Out	Total	In	Out	Total	In	Out	Total
Vehicle Trip Rate	0.016	0.061	0.077	0.059	0.038	0.097	0.523	0.546	1.069
Site Vehicular Trip Generation	34	128	162	124	80	204	1099	1147	2246

6.2.2 **Table 6.2** shows that the likely trip generation for the proposed site is approximately 162 vehicles in the AM peak, which is 80 vehicle trips less than the site currently generates. The PM Peak figure of 204 vehicular trips similar to the surveys.

6.2.3 It is acknowledged that the site will result in an increase of approximately 1250 dwellings. However, the proposed vehicle trip generation is considered appropriate for the following reasons:

- Appropriate sites have been selected from the TRICS database.
- As outlined above the level of car parking within the site is likely to reduce.
- New residents will not be allowed to purchase parking permits for the existing CPZ areas.
- The PTAL of the southern part of the site in particularly benefits from a significant increase in the PTAL rating as a result of the masterplan design.
- The site is well located for day to day needs and is a short walk to Kingston town centre.
- RBK are currently investing in new cycle infrastructure along Cambridge Road.

### Site Trip Distribution

6.2.4 The masterplan makes the site more accessible for active modes, but also changes the number vehicular access across the site. Based on the location of the proposed parking spaces across the site the distribution of traffic has updated to reflect the nearest access to the surrounding highway network. The sites distribution for the proposed masterplan has therefore been updated and is provided in **Table 6.3**.

**Table 6.3 Proposed Site Trip Distribution**

Site Access	Trip Distribution		
	AM Peak	PM Peak	Daily
Somerset Road	0%	0%	0%
St Peters Rd	45%	45%	45%
K2 Access	21%	21%	21%
Burritt Road	13%	13%	13%
Vincent Road	8%	8%	8%
Willingham Way	0%	0%	0%
Cambridge Grove Road	6%	6%	6%
Rowlls Rd	2%	2%	2%
Bonner Hill Road	5%	5%	5%
<b>Total</b>	100%	100%	100%

6.2.5 The masterplan results in a change in the distribution of traffic entering and exiting the site, with St Peters Road access accommodating 45% of the site vehicular traffic and the new access adjacent to K2 accommodating 21% of the traffic. Using the modal split above the level of traffic for each proposed site access has been provided in

**Table 6.4 Proposed Trip Generation at each Site Access**

Access Location	AM Peak			PM Peak			24Hr		
	In	Out	Total	In	Out	Total	In	Out	Total
Somerset Road	0	0	0	0	0	0	0	0	0
St Peters Rd	15	57	72	55	36	91	492	513	1005
K2 Access	7	26	33	26	16	42	226	236	463
Burritt Road	4	16	21	16	10	26	140	146	286
Vincent Road	3	11	13	10	7	17	90	94	184
Willingham Way	N/A								
Cambridge Grove Road	2	8	10	7	5	12	65	68	134
Rowlls Rd	1	3	4	3	2	5	25	26	51
Bonner Hill Road	2	7	9	7	4	11	60	63	123
<b>Total</b>	34	128	162	124	80	204	1099	1147	2246

6.2.6 The proposed development will result in the majority of vehicles using either the St Peters Road or K2 junctions with Cambridge Road.

## Net Vehicular Impact

6.2.7 As a result of the reduction in vehicular trips due to the sites, increased accessibility and reduction in parking levels, alongside measures to limit car ownership for new residents, the net impact at each the sites vehicular accesses has been provided in **Table 6.5**.

**Table 6.5 Net Impact at Sites Vehicular Accesses**

Access Location	AM Peak			PM Peak			24Hr		
	In	Out	Total	In	Out	Total	In	Out	Total
Somerset Road	-42	-45	-87	-36	-41	-77	-567	-581	-1148
St Peters Rd	4	44	49	44	27	70	329	325	654
K2 Access	7	26	33	26	16	42	226	236	463
Burritt Road	-20	-20	-39	-17	-20	-36	-320	-303	-624
Vincent Road	-7	-16	-23	-8	-8	-16	-125	-162	-287
Willingham Way	-9	-1	-4	-5	-2	-7	-78	-41	-119
Cambridge Grove Road	-2	-17	-24	-14	-11	-25	-183	-181	-364
Rowlls Rd	1	3	4	3	2	5	25	26	51
Bonner Hill Road	2	7	9	7	4	11	60	63	123
<b>Total</b>	-65	-18	-83	-1	-32	-33	-634	-617	-1251

6.2.8 The table above shows that there will be a small increase at the St Peter Road and K2 site accesses onto Cambridge Road, with minor increases onto Rowlls Road and Bonner Hill. The remainder of the existing accesses experience a reduction in vehicular traffic.

6.2.9 Based upon this it is not intended to undertake any junction modelling.

## 6.3 Multi-Modal Assessment

6.3.1 The Total People trip rate has been obtained from the same TRICS assessment as outlined in Section 6.2 above, with the corresponding trip rate and generation provided in **Table 6.6**.

**Table 6.6 Total People Trip Rate and Generation (2101 Units)**

	AM Peak			PM Peak			Daily (0700-2100)		
	In	Out	Total	In	Out	Total	In	Out	Total
<b>Total People Trip Rate</b>	0.053	0.437	0.49	0.264	0.15	0.414	2.193	2.444	4.637
<b>Total People Generation</b>	111	918	1029	555	315	870	4607	5135	9742

6.3.2 **Table 6.6** indicates that the proposed site will generate 1029 people trips in the AM peak hour, 870 people trips in the PM peak hour and 9742 across the day. The above data will then be used with the 2011 census data to understand the likely trip generation for the other

modes of transport. The car driver will be reduced to align with the vehicular trip generation figures outlined in **Table 6.2**.

**Table 6.7 Proposed Modal Split**

Mode	2011 Census Mode Share	AM Peak Adjusted Modal Split	PM Peak Adjusted Modal Split	Daily Adjusted Modal Split
Underground, metro, light rail, tram	4%	4%	4%	4%
Train	23%	27%	25%	25%
Bus, minibus, or coach	14%	17%	15%	15%
Taxi	0%	0%	0%	0%
Motorcycle, scooter or moped	1%	2%	2%	2%
Driving a Car or Van	27%	16%	23%	23%
Passenger in a car or van	1%	1%	1%	1%
Bicycle	6%	7%	6%	6%
On foot	23%	26%	24%	24%
<b>Total People</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

6.3.3 Using the above the modal split for the AM, PM and daily flows have been calculated and are provided in **Table 6.8**.

**Table 6.8 Proposed Residential Modal Split (2101 Units)**

Mode	AM Peak			PM Peak			Daily Flows		
	In	Out	Total	In	Out	Total	In	Out	Total
Underground, metro, light rail, tram	5	41	46	23	13	36	190	211	401
Train	30	247	277	136	77	213	1134	1263	2397
Bus, minibus, or coach	19	153	171	84	48	131	699	779	1479
Taxi	0	2	2	1	1	2	9	10	19
Motorcycle, scooter or moped	2	15	17	8	5	13	70	78	149
Driving a Car or Van	34	128	162	124	80	204	1099	1147	2246
Passenger in a car or van	1	12	13	6	4	10	54	60	114
Bicycle	8	62	70	34	19	54	286	319	605
On foot	29	240	269	131	75	206	1097	1223	2320
<b>Total People</b>	<b>127</b>	<b>901</b>	<b>1028</b>	<b>548</b>	<b>321</b>	<b>869</b>	<b>4638</b>	<b>5091</b>	<b>9729</b>

\*Errors due to rounding

- 6.3.4 The above shows that the train is likely to be the most popular mode of travel with 277 trips in the AM peak, 213 in the PM peak and 2397 over the course of the day.

## **6.4 Commercial Land Uses**

- 6.4.1 Outside of servicing trips it is anticipated that trips associated with the commercial elements will be made by sustainable modes.
- 6.4.2 The TA will provide an assessment of servicing trips for the retail, commercial and community uses using the TRICS database and these can be provided to RBK in due course.
- 6.4.3 Based on the above assessment and the proposed provision of car parking on site, it is not intended to undertake any junction capacity modelling.

## **7. Other supporting Documents**

### **7.1 Summary**

7.1.1 This Healthy Streets TA will be supported by a suite of other transport related documents including:

- Framework Residential Travel Plan.
- Outline Car Park Management Plan
- Outline Construction Logistic Plan; and
- Outline Delivery and Servicing Plan.

7.1.2 These documents will seek to provide as much information as can be provided at the application stage, meeting policy requirements.

## **8. Summary**

- 8.1.1 Markides Associates have been appointed by CPPLC to prepare this Transport Assessment Scoping Report in connection with a hybrid planning application for the redevelopment of Cambridge Road Estate, Kingston.
  
- 8.1.2 This Scoping Note has been prepared in relation to the Cambridge Road Estate, Kingston within the Royal Borough of Kingston Upon Thames. The planning application will be accompanied by a Transport Assessment (TA) and other associated documents which will outline the existing transport facilities within the vicinity of the site, provide a forecast of the 'net' increase in trips associated with the redevelopment proposals followed by an assessment of the impact of each of these trips upon the local transport network.
  
- 8.1.3 The applicant would welcome further discussion with RBK regarding the content of this Scoping Note and the assessment methodologies proposed.

# Technical Note

## Scoping Note 2

### Cambridge Road Estate Regeneration

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Project Number: 19157  
Doc Number: TN05  
Prepared for: Countryside Properties

3 August 2020

Rev	Issue Purpose	Author	Checked	Reviewed	Approved	Date
A	For Issue	EJ	MH	EJ	MH	03/08/20

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## 1. Introduction

### Preamble

- 1.1 This Scoping Note 2 has been prepared by Markides Associates (MA) on behalf of Countryside Properties PLC (CPPLC), hereafter referred to as the applicant, in support of a forthcoming planning application for the regeneration of the Cambridge Road Estate in Kingston. The existing site was originally developed over 50 years ago and provides approximately 832 dwellings over 8.66 hectares, CPPLC are seeking planning permission to redevelop the whole estate for circa 2100 new homes and associated uses.
- 1.2 The development is a joint venture between RBK and CPPLC. The GLA is also providing funding for the redevelopment.
- 1.3 This scoping note responds to the comments from the RBK Highways Officers entitled Highways Observations (Jul 20).

## 2. Trip Generation

### Proposed Vehicular Trip Generation

- 2.1 RBK requested that the TRICS sites include the following:
  - Affordable / local authority properties.
  - Parking provision similar to that proposed.
  - Weekend trip rates.

## Revised Weekday Trip Rates

- 2.2 The trip rates for vehicular trip generation have been revised to include parking two vehicular trip rates, one for private flats and one for affordable flats. One site has been removed from the original selection due to the parking ratio being very high, otherwise they remain unchanged. The revised trip rates and trip generation are provided in **Table 2.1** below and are based on 60% private housing and 40% affordable housing. The private housing TRICS outputs in **Appendix A**, with the Affordable housing TRICS outputs in **Appendix B**.

**Table 2.1 Revised Trip Rates and Trip Generation**

Mode	AM Peak			PM Peak			Daily Flows		
	In	Out	Total	In	Out	Total	In	Out	Total
<b>Vehicular Trip Rates</b>									
Private	0.01	0.02	0.03	0.034	0.016	0.05	0.166	0.175	0.341
Affordable	0.026	0.091	0.117	0.041	0.032	0.073	0.378	0.42	0.798
<b>Vehicular Trip Generation</b>									
<b>Trip Generation (60% Private &amp; 40% Affordable)</b>	34	102	136	77	47	124	527	574	1101
<b>Total People Trip Rates</b>									
Private	0.054	0.335	0.389	0.259	0.165	0.424	1.933	2.233	4.166
Affordable	0.135	0.568	0.703	0.388	0.241	0.629	2.783	2.882	5.665
<b>Total People Trip Generation</b>									
<b>Trip Generation (60% Private &amp; 40% Affordable)</b>	182	900	1081	653	411	1063	4776	5237	10013

- 2.3 The shows that the likely trip generation for the proposed site is approximately 136 vehicles in the AM peak, 124 in the PM peak and 1101 across the day. With regard to the Total People trips, the site would generate approximately 1081 trips in the AM peak, 1063 in the PM peak and 10013 across the day.

## Weekend Trip Rates

- 2.4 RBK requested that trip rates for the weekend be provided. Reviewing the TRICS database there are no weekend surveys for either private or affordable flats with which to make a comparison. The ATC data has been reviewed in order to understand whether there is a greater level of movement at the weekend with the results summarised in **Table 2.2**.

**Table 2.2 Comparison of Weekday and Saturday Vehicular Trips**

Day	Site 10	Site 11	Site 12	Site 13	Site 14	Site15	Total
Saturday	791	324	835	408	100	373	2831
Weekday (Avg)	1148	351	910	471	119	498	3497

2.5 The table above shows that the level of vehicular movement is less on a Saturday when compared with the average of the weekday data.

2.6 Given the above, it is not considered necessary to undertake any analysis of weekend trip generation as part of the planning submission.

### 3. Servicing Trips

3.1 RBK requested additional information regarding the number of delivery and servicing trips related to the residential and commercial elements.

#### Residential Delivery and Servicing Trips

3.2 Residential delivery and servicing trips have been calculated from the TRICS database. Only the Private Flats has a 'Servicing Vehicle' category within the TRICS database, therefore this has been used to determine the number of vehicles for all the properties (private and affordable), with the results provided in **Table 3.1** and **Appendix C**.

**Table 3.1 Residential Delivery and Servicing Trips**

Mode	AM Peak			PM Peak			Daily Flows		
	In	Out	Total	In	Out	Total	In	Out	Total
<b>Trip Rates</b>	0.002	0.002	0.004	0.004	0.006	0.01	0.032	0.032	0.064
<b>Trip Generation</b>	4	4	8	8	13	21	67	67	134

3.3 The table above shows that the site is forecast to generate approximately 8 delivery and servicing trips in the AM peak, 21 in the PM peak and 134 across the day. Using the HGV's trip rate from the private flats it is possible to determine the ratio of LGV/HGV deliveries across the day. A total of 20 HGV trips are expected to serve the site across on day (none occurring in the peak hours), with the remainder being LGV vehicles.

#### Commercial Delivery and Servicing Trips

3.4 Commercial delivery and servicing trips have been calculated from the TRICS database, with the exception of the community use. In additional, it is anticipated that the Community Use may include a Café element to it. Therefore, in order to be robust 200sqm of the community use has been modelled as Café in order to give a robust assessment regarding delivery vehicles.

- 3.5 With regard to the community use the TRICS database has many different community site surveys, which vary in terms of trip generation, but none are located within London. Therefore, a trip rate of 0.15 trips per 100sqm of NIA has been used for the community use. This figure – which is taken from the Battersea Power Station redevelopment – applies to the total daily trip rate, whereas for robustness this has been applied to the daily inbound and outbound (doubling the daily trip rate) for the community use in order to be robust.
- 3.6 **Table 3.2**, shows the trip rates and generation are provided for each commercial use, with TRICS outputs provided in **Appendix E**, **Appendix F** and **Appendix F**.

**Table 3.2 Commercial Delivery and Servicing Trip Rates and Generation**

Mode	AM Peak			PM Peak			Daily Flows		
	In	Out	Total	In	Out	Total	In	Out	Total
<b>Trip Rates</b>									
<b>A1 Retail</b>	0.024	0	0.024	0.048	0.071	0.119	0.618	0.62	1.238
<b>B1 Workspace</b>	0.008	0.016	0.024	0.008	0.008	0.016	0.218	0.219	0.437
<b>D2 Community Use</b>							0.15	0.15	0.3
<b>A3 Café (Community Use)</b>	0	0	0	0	0	0	0.291	0.291	0.582
<b>Site Wide Delivery and Servicing Trip Generation</b>									
<b>Total Trip Generation</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>10</b>	<b>10</b>	<b>19</b>

- 3.7 The table above shows that there will be a total of 19 commercial delivery and servicing trips across the day. Of the 19, eight are expected to be HGV's with the remainder LGV.
- 3.8 Further detail regarding the number of delivery and servicing trips is provided in a short report entitled 'CRE Delivery and Servicing Trips' which accompanies this Scoping Note.

## 4. Vehicular Accesses & Junction Modelling

- 4.1 RBK have requested that the St Peters Road / Cambridge Road junction and the vehicular access to Block K2 onto Cambridge Road be modelled. Junctions 8 (Picady) will be used to model both accesses with appropriate growth factors to 2039 and the results of this will be included within the TA.
- 4.2 At this stage it is not proposed to amend the junction of St Peters Road and Cambridge Road
- 4.3 Should any RMA change the distribution of trips and impact on any particular junction this will be confirmed in a Transport Assessment / Statement to support that reserved matters application.
- 4.4 RBK have requested further detail regarding the main vehicular accesses under the regeneration proposals. The exact location, and form of each junction alongside detailed

design will be determined under a reserved matters application for that particular phase, therefore the detail of those junctions should be agreed at that stage. It is also noted that RBK would be the approving authority for any junction amendments under further S278 detailed design and agreements.

- 4.5 However, the application will provide drawings to show appropriate visibility splays and tracking for the whole masterplan to provide comfort to both RBK and TfL and the design of the highway network within the estate is appropriate.

## 5. Parking

- 5.1 RBK requested in the meeting that clarification regarding the existing number of parking spaces was required. A separate report entitled CRE Parking Beat Survey Results summarises the results of the Parking Beat Survey which is provided alongside this Scoping Note.
- 5.2 The report shows that there are 935 existing parking spaces within the CRE. This figure includes those CPZ bays on Willingham Way and part of Cambridge Grove Road, as these are directly within the CRE. It does not include any other CPZ bays, although these are of course available for use by the existing residents of the estate.
- 5.3 The existing parking ratio is 1.1 per dwelling. The proposed parking ratio will be 0.4 spaces per dwelling.
- 5.4 The low parking ratio will be supported by a car club provision and Zipcar have confirmed they are interested in providing the proposed development with car clubs.
- 5.5 It is also worth noting that any existing resident who currently owns a car will be provided with a parking space when they are re-housed as part of the redevelopment should they wish. Any spaces not taken up by the existing residents will be leased to residents on a first come first served basis. Otherwise new residents will not be allowed to own a car and will be prevented from purchasing permits to park in the existing (or any future) CPZ bays.
- 5.6 The development will therefore not result in any additional pressure on the existing parking stock either within the estate or on the surrounding roads.

## 6. Go Cycle Scheme

### Cambridge Road Bus Stop

- 6.1 The proposed bus stop location under the Go Cycle Eastern Route proposals are located on Cambridge Road, immediately to the east of the signalised crossing outside Cambridge Gardens. The bus stops are orientated as such that the buses face each other when both stops are utilised. **Figure 6.1** shows the RBK proposal.

**Figure 6.1 RBK – Bus Stop Location on Cambridge Road**



Source: Extract from RBK Go Cycle Eastern Route Drawing K-NM-70014694-GA-05\_Consult Rev D

- 6.2 Under the proposed development the location of the access for Block K2 has been revised to provide a better public realm. As a result the vehicular access to K2 (proposed as a simple vehicular crossover (not a bellmouth) to provide greater priority to pedestrians and cyclists) has been relocated further west, resulting in the relocation of the bus stops on Cambridge Road. **Figure 6.2** shows the relocated vehicular access for Block K and the repositioned Bus Stops on Cambridge Road.

**Figure 6.2 Proposed Amended Bus Stop Location**



- 6.3 In order to accommodate the new vehicular access, the proposed bus stops have been switched, resulting in the tails of the buses being closest when both stops are occupied which

is in accordance with TfL's bus stop guidelines. Otherwise the design of Cambridge Road will remain the same as that proposed under the Go Cycle Scheme. The applicant would welcome further discussions with RBK as appropriate regarding the detailed coordination of the Go Cycle proposals and the proposals within the planning application to ensure all elements are aligned to satisfaction.

## Other Comments on the Go Cycle Proposals

- 6.4 The proposed development seeks to create better connections to the north including Norbiton station. The proposals include a 10m wide crossing, with a raised table outside Cambridge Gardens (just to the west of the bus stops) as indicated in **Figure 6.3**.

**Figure 6.3 Proposed Cambridge Road Crossing**



- 6.5 The raised table is proposed to be surfaced with different materials and not standard 'blacktop.' Would this be acceptable in principle?
- 6.6 The junctions of St Peters Road and Hampden Road will be as per RBK's design, but St Peters Road has been widened to 6.5m in width to accommodate a potential bus route at the request of TfL.
- 6.7 It is assumed that the raised cycleway to the east of Gloucester Road retains vehicular accesses for those existing dwellings (similar to that installed on London Road).
- 6.8 The CRE proposals have been designed to retain as many existing trees possible along the Cambridge Road at the junction with Hawks Road. We note that the cycle lane proposals include realignment of the existing retaining wall to these trees except in direct relation to the tree trunks. We would ask if a detailed arboricultural impact assessment has been completed to ensure retention of these trees is not compromised by the cycle lane works. Should the cycle lane impact the trees, we request that the proposals are amended. This is because the CRE proposals have been designed in order to retain as many of the existing trees within the estate including along Cambridge Road and its junction with Hawks Road

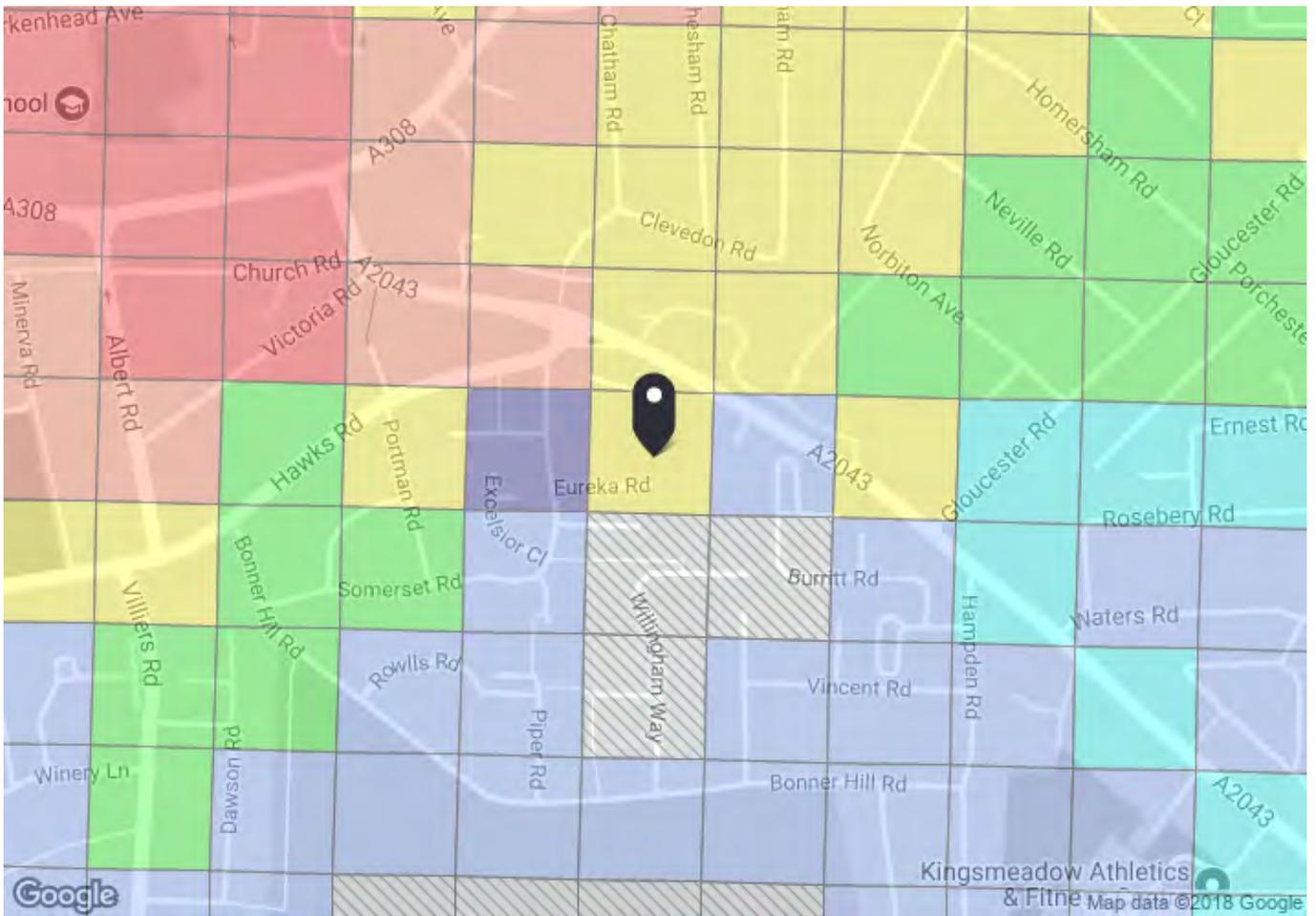
## 7. Active Travel Zones

- 7.1 The Active Travel Zone (ATZ) assessment will be in accordance with the TfL guidelines and will include cycle routes.

## 8. Temporary Construction Access onto Hawks Road

- 8.1 It is noted that the highways response states that a temporary construction access onto Hawks Road is not supported.
- 8.2 The minutes of the earlier pre-application meeting clearly show that RBK supported the principle of a construction access in this location.
- 8.3 This is the only realistic route into Phase 1, routing construction vehicles down Portman Road / Bonner Hill Road / Somerset Road is clearly not appropriate due to the residential nature of those roads. In addition, there would clearly be a need to remove large areas of on-street parking to the detriment of the existing residents.
- 8.4 Clearly the opening up of Washington Road with Hawks Road will need to be carefully managed, but measures such as a committed not to allow vehicles to enter / exit in the AM and PM peak hours and the use of guards and banksman to ensure there is minimal conflict with the operation of the signalised junction and to ensure pedestrian safety it is felt that this can be managed to the satisfaction of the highway authority. The applicant would welcome further discussion on this element to ensure that any temporary impacts associated with construction are adequately mitigated.
- 8.5 Further detail will be provided in the Construction Logistics Plan.

# APPENDIX D – PTAL OUTPUT REPORT



**PTAL output for Base Year**  
4

Madingley, Kingston upon Thames KT1 3JG, UK  
Easting: 519150, Northing: 169138

Grid Cell: 28949

Report generated: 29/05/2018

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**Calculation Parameters**

Day of Week	M-F
Time Period	AM Peak
Walk Speed	4.8 kph
Bus Node Max. Walk Access Time (mins)	8
Bus Reliability Factor	2.0
LU Station Max. Walk Access Time (mins)	12
LU Reliability Factor	0.75
National Rail Station Max. Walk Access Time (mins)	12
National Rail Reliability Factor	0.75

**Map key - PTAL**

 0 (Worst)	 1a
 1b	 2
 3	 4
 5	 6a
 6b (Best)	

**Map layers**

 PTAL (cell size: 100m)

Calculation data

Mode	Stop	Route	Distance (metres)	Frequency (vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	AI
Bus	NORBITON CHURCH	K4	422.31	2	5.28	17	22.28	1.35	0.5	0.67
Bus	NORBITON CHURCH	85	422.31	8	5.28	5.75	11.03	2.72	0.5	1.36
Bus	NORBITON CHURCH	K5	422.31	1	5.28	32	37.28	0.8	0.5	0.4
Bus	NORBITON CHURCH	57	422.31	7.5	5.28	6	11.28	2.66	0.5	1.33
Bus	NORBITON CHURCH	371	422.31	7	5.28	6.29	11.56	2.59	0.5	1.3
Bus	NORBITON CHURCH	K3	422.31	4	5.28	9.5	14.78	2.03	0.5	1.01
Bus	NORBITON CHURCH	213	422.31	7.5	5.28	6	11.28	2.66	0.5	1.33
Bus	NORBITON CHURCH	K2	422.31	6	5.28	7	12.28	2.44	0.5	1.22
Bus	CAMBRIDGE RD HAWKES ROAD	131	189.44	7.5	2.37	6	8.37	3.59	1	3.59
Bus	CAMBRIDGE GARDENS	X26	237.05	2	2.96	17	19.96	1.5	0.5	0.75
Rail	Norbiton	'WATRLMN-SHEPRTN 2H09'	875.66	2	10.95	15.75	26.7	1.12	1	1.12
Rail	Norbiton	'SHEPRTN-WATRLMN 2H10'	875.66	2	10.95	15.75	26.7	1.12	0.5	0.56
Rail	Norbiton	'WDON-WATRLMN 2K03'	875.66	0.33	10.95	91.66	102.6	0.29	0.5	0.15
Rail	Norbiton	'WATRLMN-WATRLMN 2K09'	875.66	2	10.95	15.75	26.7	1.12	0.5	0.56
Rail	Norbiton	'WATRLMN-WATRLMN 2O09'	875.66	2	10.95	15.75	26.7	1.12	0.5	0.56
Rail	Norbiton	'TEDNGTN-WATRLMN 2O90'	875.66	0.33	10.95	91.66	102.6	0.29	0.5	0.15
Rail	Norbiton	'TWCKNHM-WATRLMN 2O92'	875.66	0.67	10.95	45.53	56.47	0.53	0.5	0.27

**Total Grid Cell AI: 16.34**

# APPENDIX E – PARKING BEAT REPORT



# Cambridge Road Estate

## Parking Beat Survey Results

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July 2020

# Introduction

## Parking Beat Survey

In order to support a hybrid planning application to redevelop the Cambridge Road Estate (CRE), an independent parking beat survey has been carried out. This occurred on Wednesday 8<sup>th</sup> and Thursday 9<sup>th</sup> of July, in accordance with the Lambeth Methodology for residential developments.

The requirements for a Lambeth methodology survey include:

- Two early morning surveys between 00:30 and 05:30.
- All roads within area surveyed.
- All markings recorded
- Map showing survey area and all parking restrictions.

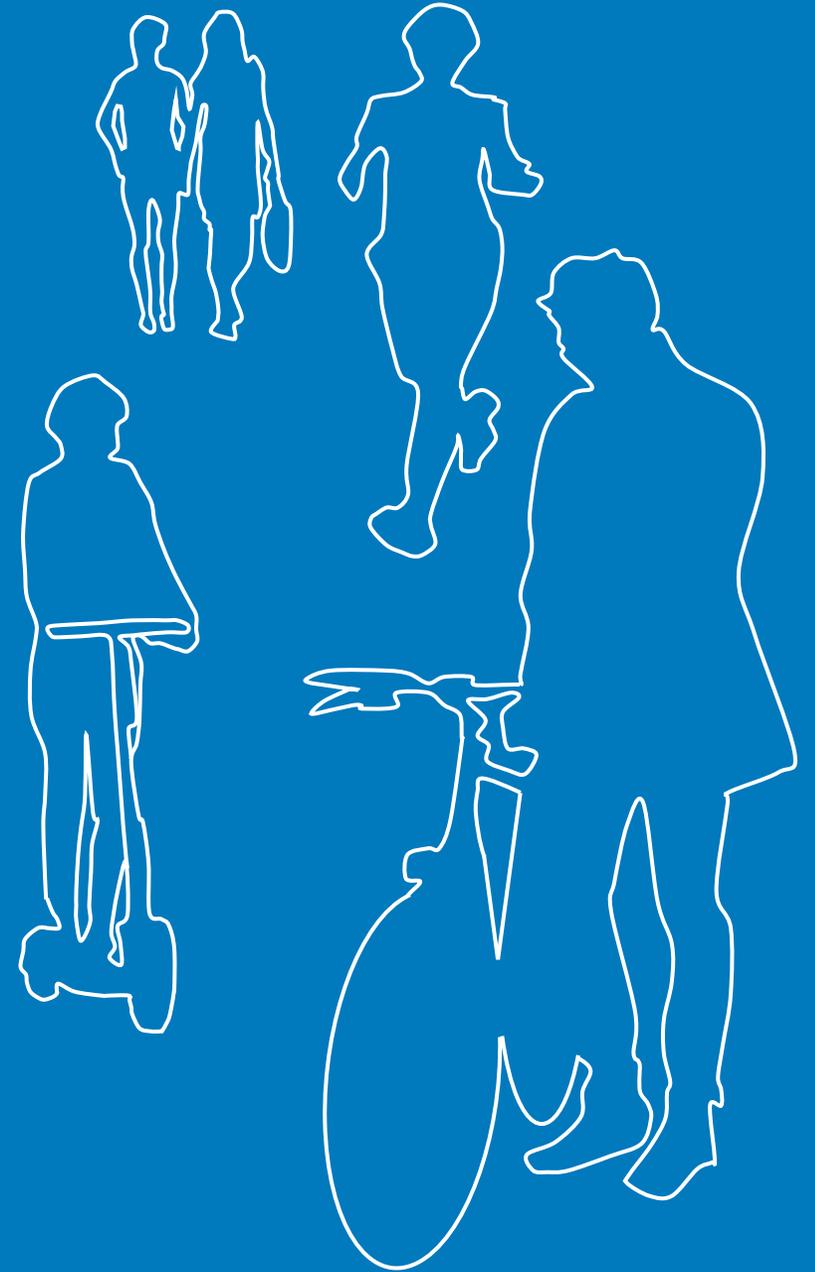
The survey has been separated into two parts:

- Site 1 – 200m walk from the edge of the CRE site.
- Site 2 – Survey of the CRE estate itself.

The full survey results for Site 1 and 2 are included in Appendices A and B.



# CRE – Site 1 – Off Site Parking Beat Survey

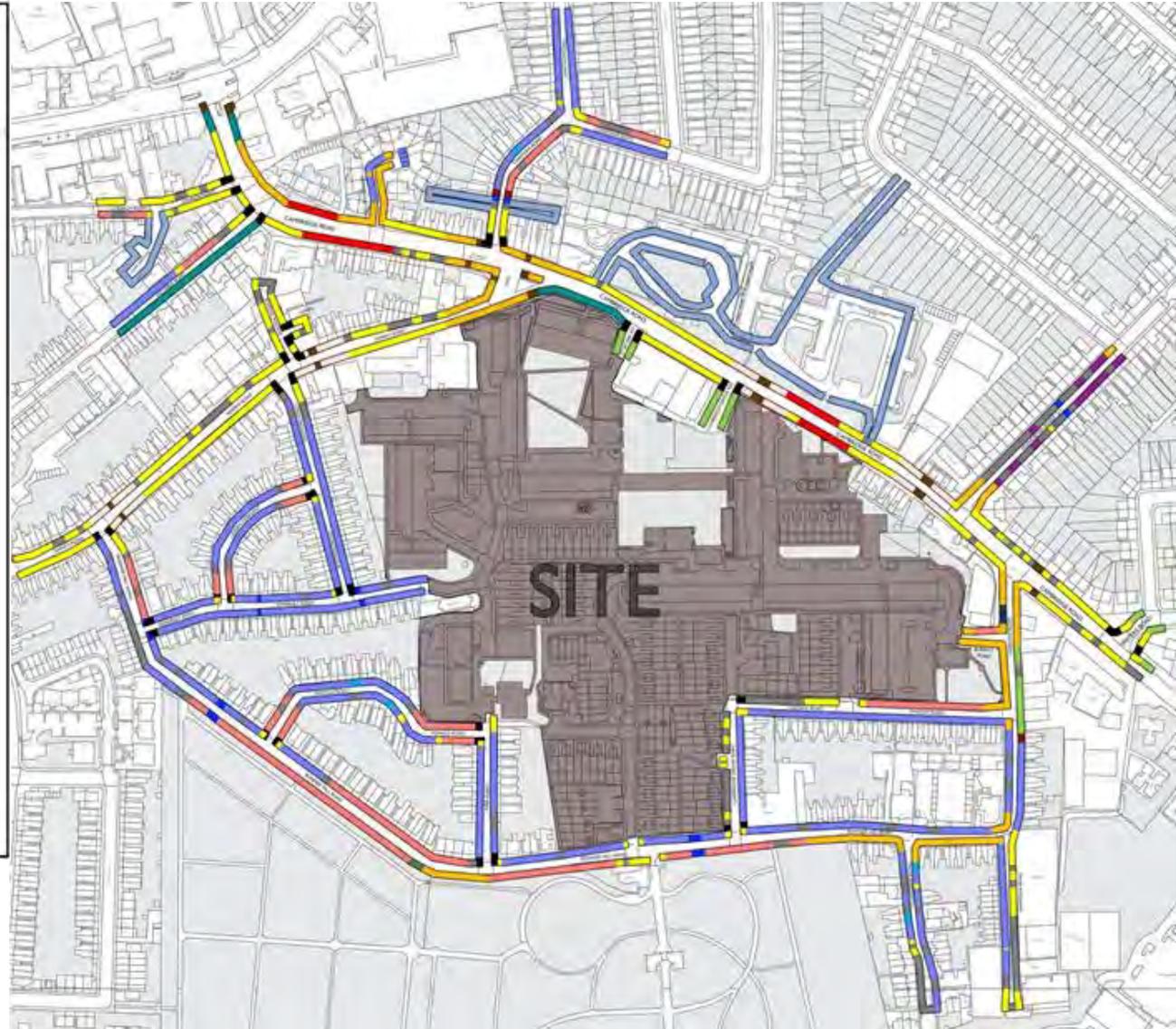


# Site 1 – Off Site Parking Beat Survey Extent

## Off Site Parking Beat Survey

The extent of the off-site parking beat survey is shown on the image to the right – 200m from the edge of the site in accordance with the Lambeth Methodology (residential sites) guidance.

The various restrictions that are currently in place are also shown.



# CRE – Site 1 – Off-Site Parking Beat Survey Results



## Off Site Parking Beat Survey

The results of the off-site parking beat survey are provided in the table to the right.

The unrestricted areas suffer the greatest stress with 79% occupancy on both evenings. However, these only account for 28 spaces, and provide spare overnight capacity (5 spaces). The permit holder only spaces (which also have the greatest number of spaces available at 412) were at 60% and 80% capacity on both evenings. Those permit holder only spaces that also accommodate short-term parking throughout the day were at approximately 50% capacity on both evenings.

The results show that there remains spare capacity on the surrounding residential roads with the average stress across the survey area of 47%/48%.

The survey also shows that there is little illegal or obstructive parking in the area surrounding the CRE which consequently indicates that there no significant parking pressures on these roads.

Appendix A includes the full off-site parking beat survey report.

	Length Parking (m)	Length Spaces	Marked / Crosswise Bays	Total Spaces	TUESDAY 16 JUNE 2020			WEDNESDAY 17 JUNE 2020		
					00:30			00:30		
					Occupied	Spaces	Stress (%)	Occupied	Spaces	Stress (%)
Unrestricted	135	27	1	28	22	6	79%	22	6	79%
Permit Holders Only (N) Mon-Fri 10am-3pm	70	14	1	15	6	9	40%	7	8	47%
Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	2035	407	5	412	297	116	72%	298	115	72%
Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	770	154	1	155	75	81	48%	78	78	50%
Disabled Permit Holders	0	0	5	5	3	2	60%	4	1	80%
Single Yellow (No Parking Mon-Sat 7am-7pm)	1215	243	2	245	0	245	0%	0	245	0%
Loading Only 30 Mins - No Return Within 1 Hour	10	2	0	2	0	2	0%	0	2	0%
Car Club Only	5	1	0	1	0	1	0%	1	0	100%
<b>Total</b>	<b>4240</b>	<b>848</b>	<b>15</b>	<b>863</b>	<b>403</b>	<b>462</b>	<b>47%</b>	<b>410</b>	<b>455</b>	<b>48%</b>
Illegal/Obstructive Parking					3			3		

# CRE – Site 1 – Off-Site Parking Beat Survey Results

## Roads Adjacent to the Cambridge Road Estate

The level of parking on roads which are immediately adjacent to the Cambridge Road Estate have been considered in more detail. The table below summarises the existing parking stress for each road.

The results show that Linden Crescent suffers the most Stress with 94% and 97% occupation on both evenings. All other adjacent roads have spare capacity within them, with the next highest being Portman Road, Rowlls Road and Somerset Road operating at approximately 70% stress.

The average occupancy of the roads immediately surrounding the Cambridge Road Estate are 58% and 59% on both surveyed evenings indicating the supply of on-street parking currently meets demand.

	TUESDAY 16 JUNE 2020			WEDNESDAY 17 JUNE 2020		
	00:30			00:30		
	Occupied	Spaces	Stress (%)	Occupied	Spaces	Stress (%)
Bonner Hill Road	74	96	44%	76	94	45%
Burritt Road	2	1	67%	2	1	67%
Cambridge Grove Road *	17	11	61%	17	11	61%
Hampden Road	32	23	58%	35	20	64%
Linden Crescent	31	2	97%	30	3	94%
Piper Road	15	13	54%	16	12	57%
Portman Road	32	11	74%	30	13	70%
Rowlls Road	35	15	70%	36	14	72%
Somerset Road	41	17	71%	42	16	72%
St Peters Road	0	4	0%	0	4	0%
Vincent Road	26	27	49%	27	26	51%

\* Cambridge Grove Road includes the spurs off Bonner Hill Road and the Spur off Cambridge Road.

# CRE – Site 2 – CRE Parking Beat Survey



# Site 2 – Cambridge Road Estate Parking Beat Survey

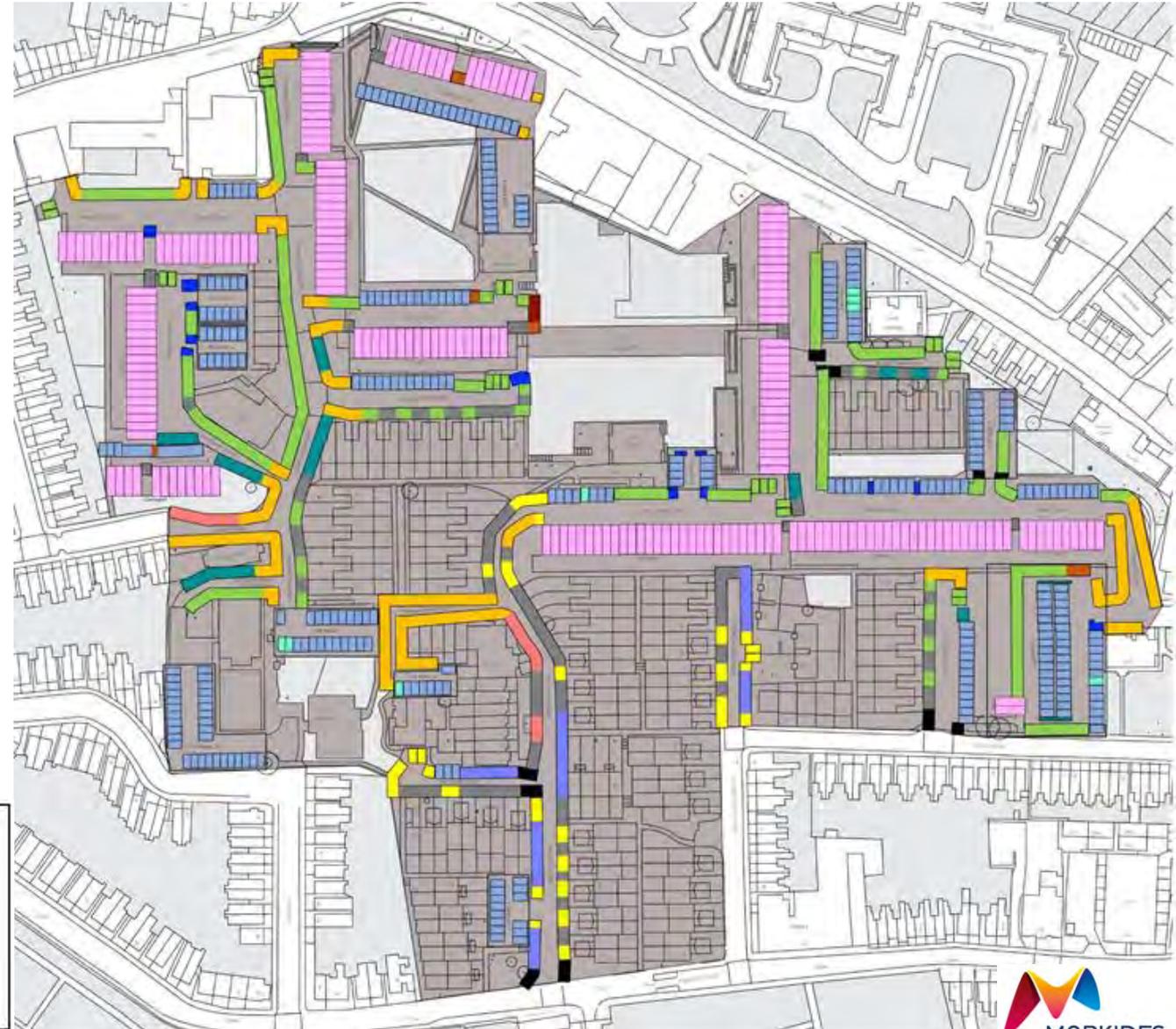
## Cambridge Road Estate Parking Beat Survey

The extent of the parking beat survey within the Cambridge Road Estate can be seen in the image on the right, as well as the various restrictions that exist throughout the site.

Whilst the parking beat survey includes the private parking courts within the Cambridge Road Estate as well as the on-street parking that occurs, it is important to note the following:

- The survey identifies the number of garages and whether garage forecourt parking occurs, but not whether the garage itself is used for parking.
- The survey excludes on-street parking along Vincent Road and part of Cambridge Grove Road as this is included within Site 1.
- Any private garage or driveway parking for houses is not included within the parking beat survey.

 Unrestricted	 Crossover
 Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	 Too Narrow
 Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	 Build Out
 Single Yellow (No Parking Mon-Sat 7am-7pm)	 Double Yellow
 Private Parking	 7.5 Meters From Junction
 Disabled Private Parking	 Bins
 Private Parking (Garage Doors)	 Keep Clear
 Site Extern	 Parked Vehicle



# CRE – Site 1 - Extent of Parking Beat Survey



## Off Site Parking Beat Survey

The results of the off-site parking beat survey are provided in the table below.

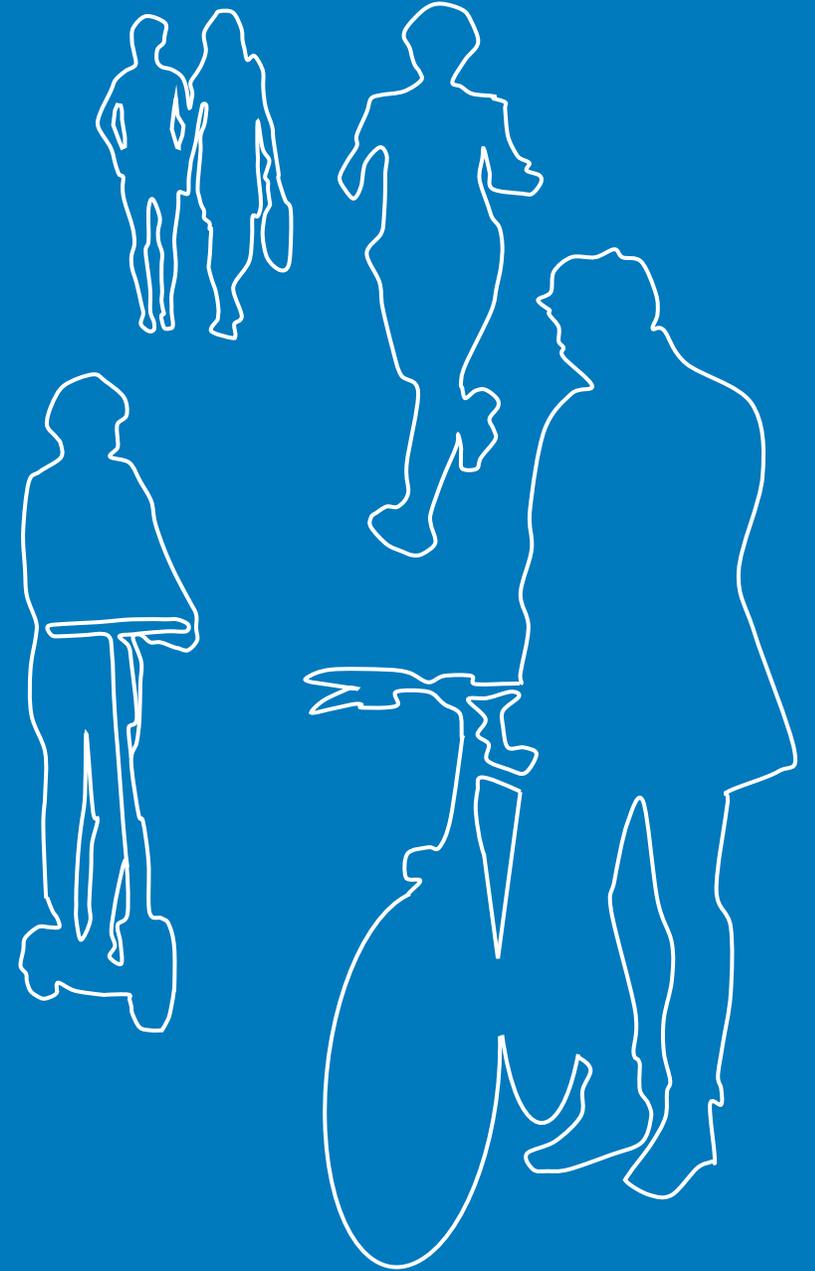
The table above shows that the private parking courts within the estate suffer the greatest stress and are close to capacity with 90% occupancy on both evenings. Unrestricted parking areas were at 77% and 78% capacity on the Tuesday and Wednesday evening respectively. The permit holder spaces (which total 23 spaces) within the site are at less than 50% occupied which is not unsurprising given the number of private and unrestricted parking areas make up the majority of the parking provision.

The survey identifies a significant number of illegal / obstructive parking occurring within the estate, this is largely the result of residents parking their cars lengthwise across multiple garage doors.

Appendix B includes the full off-site parking beat survey report.

	Lengthwise Parking (m)	Lengthwise Spaces	Marked / Crosswise Bays	Total Spaces	TUESDAY 16 JUNE 2020			WEDNESDAY 17 JUNE 2020		
					00:30			00:30		
					Occupied	Spaces	Stress (%)	Occupied	Spaces	Stress (%)
<b>Unrestricted</b>	560	112	22	134	103	31	77%	105	29	78%
<b>Permit Holders Only (N) Mon-Fri 8:30am-6:30pm</b>	115	23	0	23	11	12	48%	11	12	48%
<b>Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours</b>	115	10	0	10	6	4	60%	6	4	60%
<b>Single Yellow (No Parking Mon-Sat 7am-7pm)</b>	90	18	4	22	3	19	14%	3	19	14%
<b>Private Parking</b>	20	4	300	304	269	35	88%	264	40	87%
<b>Disabled Private Parking</b>	0	0	7	7	7	0	100%	7	0	100%
<b>Private Parking (Garage Doors)</b>	0	0	210	210	17	193	8%	20	190	10%
<b>Total</b>	<b>900</b>	<b>167</b>	<b>543</b>	<b>710</b>	<b>416</b>	<b>294</b>	<b>56%</b>	<b>416</b>	<b>294</b>	<b>57%</b>
<b>Illegal/Obstructive Parking</b>					<b>39</b>			<b>30</b>		

# CRE – Existing Parking Provision



# Existing Parking Provision

## Estimate Parking Provision for the Cambridge Road Estate

As previously mentioned, the parking beat survey for Site 1 (the Cambridge Road Estate) does not provide a full understanding of the existing number of parking spaces currently available to residents. Using both the parking beat survey data, the use of google earth/streetview and a site visit the total number of parking spaces is estimated to be 1,016. The adjacent table summarises the estimated total number of parking spaces onsite.

### Notes

The following should be noted.

- CPZ bays on Vincent Road and Cambridge Grove Road (south of the junction with Vincent Road) are excluded from the on-site parking provision but may be used by residents. The data relating to these roads are included within the Site 1 (off-site) parking beat survey. Other adjacent roads with CPZ's in place (eg, Rowlls Rd, Piper Rd, Somerset Rd & Bonner Hill Rd in particular) are also available for use by residents of CRE.
- Unofficial parking exists in other places throughout the site. The figure provided in the table is therefore likely to be an underestimation of the actual potential level of on-site parking.
- The Private Parking (Garage Doors) identifies the level of (inline) parking in front of those garages. Any parking across the garage doors has been identified under the illegal/obstructive parking category. There are at least 31 garages which could comfortably accommodate additional parking spaces, and this has been identified in the table opposite.
- Some illegal / obstructive parking occurs across the site on a daily basis. Given there is spare capacity within the site this is likely to be for personal convenience / safety reasons

No. Spaces identified by Parking Beat Survey	
Unrestricted	134
Permit Holders	23
Parking (4 Hours)	10
Single Yellow	22
Private Parking	304
Disabled Parking	7
Private Parking (in line with garage doors)	31
Private Garages (under resi blocks)	210
<b>Sub Total (Parking Beat Survey)</b>	<b>741</b>
Other Parking Areas not included within Parking Beat Survey	
Garages (houses)	99
Driveways (assume one space)	95
<b>Sub Total</b>	<b>194</b>
Other Publicly Available Parking Spaces	
Vincent Road CPZ Spaces	53
Cambridge Grove Road CPZ Spaces (both spurs)	28
<b>Sub Total</b>	<b>81</b>
<b>Grand Total</b>	<b>1016</b>

# CRE – Summary



# Summary

A Parking Beat survey of the Cambridge Road Estate and the surrounding local highway network (200m from the edge of the site) has been undertaken to understand the current level on-site and off-site parking. The surveys indicate that:

## On-Site Parking Provision

- The parking beat survey identifies 741 parking spaces including 31 garage forecourts (excluding private residential drives / garages).
- These spaces are at approx. 56% – 57% occupancy
- Spare capacity therefore exists within the site.
- Illegal / obstructive parking exists, most likely because of poorly designed parking areas.

## Off-Site Parking Provision

- That there are 863 off site parking spaces within a 200m radius of the site.
- These spaces are at approx. 47% - 48% occupancy
- Surrounding streets therefore also have spare capacity.
- Minimal illegal / obstructive parking was observed.

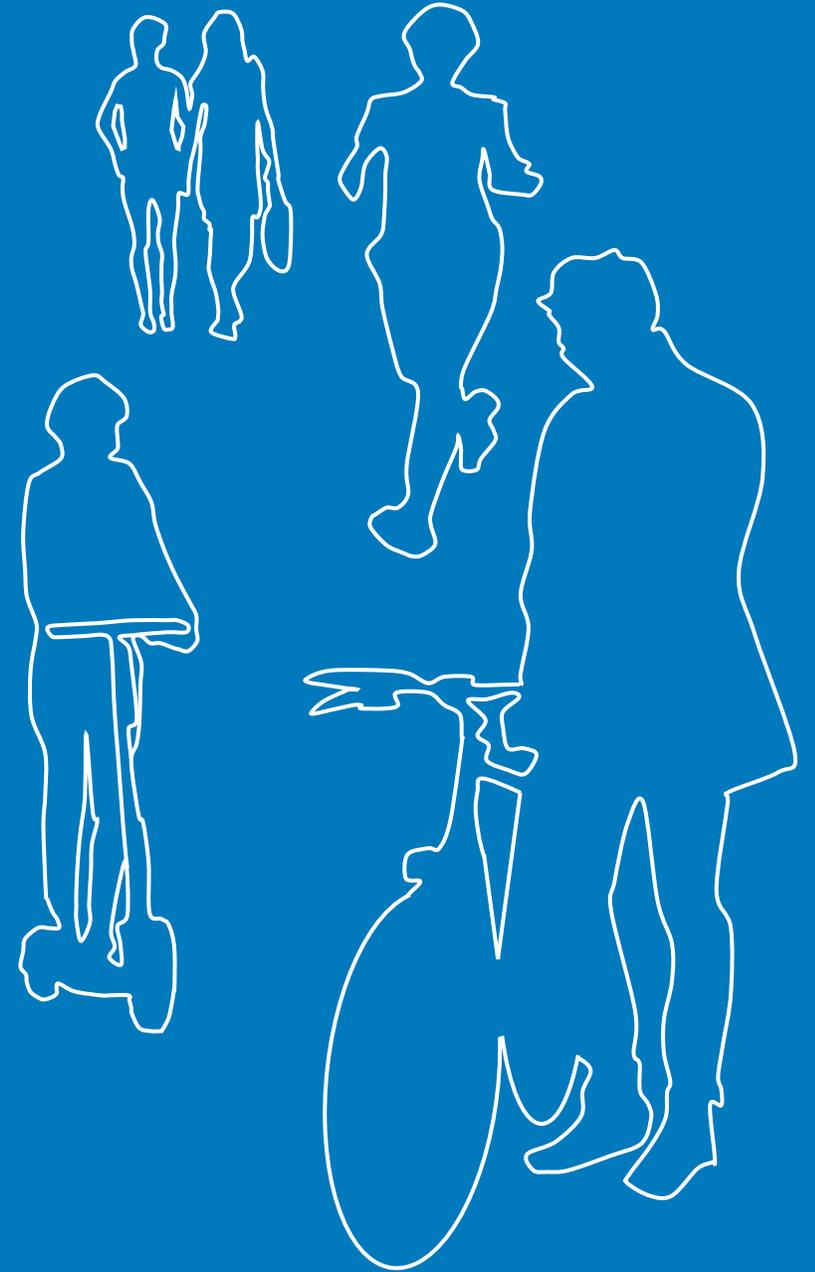
## Existing Parking Provision within the CRE

- The parking beat survey does not identify all the existing parking spaces within the estate.
- The estate has 935 parking existing spaces excluding the CPZ spaces on Vincent Road / Cambridge Grove or other adjacent roads.
- Existing parking ratio of 1.1 spaces per unit (excluding Vincent Road / Cambridge Grove Road CPZ Bays).
- A total of 1016 spaces exists on-site when including appropriate CPZ bays.





# Appendix A – Off-Site Parking Beat Survey (Site 1)





**RADIAL**  
UK PARKING BEAT  
SURVEY SPECIALISTS

**CAMBRIDGE ESTATE  
KINGSTON-UPON-THAMES  
SITE AREA 1**



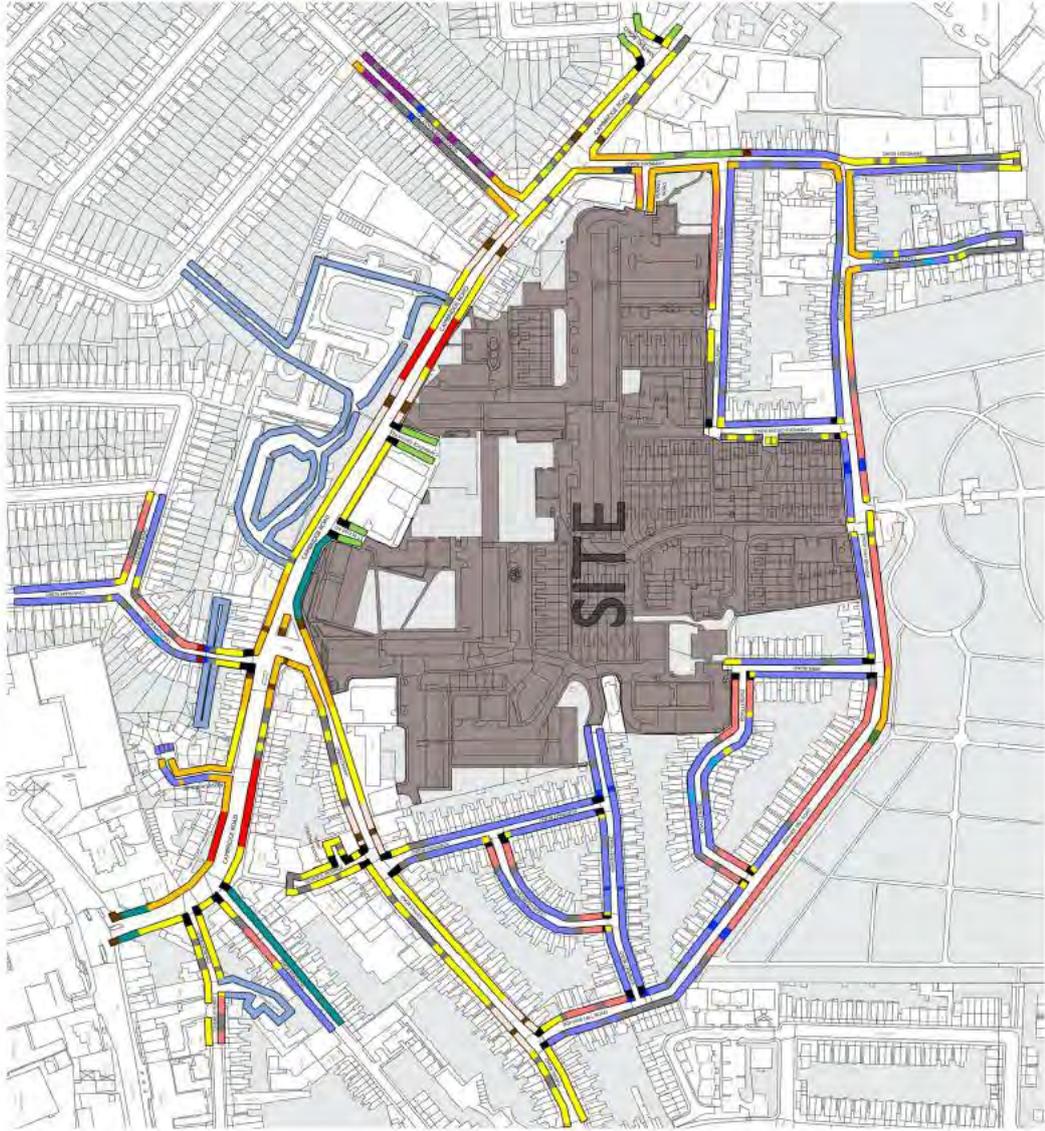
**PARKING BEAT SURVEY**

**TUESDAY 16 JUNE 2020 1:00AM  
WEDNESDAY 17 JUNE 2020 1:00AM**

## SURVEY DETAILS

<b>Survey Type</b>	PARKING BEAT SURVEY	
<b>Methodology Guidance</b>	London Borough of Lambeth	
<b>Site</b>	KINGSTON UPON THAMES-CAMBRIDGE ROAD ESTATE (OFF-SITE EXTENT)	
<b>Survey Area</b>	EXTENT OF AREA SET BY CLIENT	
<b>Date/s</b>	TUESDAY 16 JUNE 2020	WEDNESDAY 17 JUNE 2020
<b>Time/s</b>	01:00	01:00
<b>Beat Frequency</b>	SNAPSHOT	
<b>Unit for 1 Unmarked Lengthwise Space (m)</b>	5	
<b>Unit for 1 Unmarked Crosswise Space (m)</b>	2.5	
<b>Areas Excluded From Survey</b>	Private parking spaces, private roads and off road parking (unless requested in survey specification).	
<b>Sections of road excluded from parking capacity calculation</b>	<p>First 7.5m from junction mouth (for reasons of highway safety).  Crossovers, dropped kerbs, build-outs, traffic islands, 24/7 illegal parking.  Sections of legal lengthwise parking between illegal parking (crossover, dropped kerbs, double yellow etc) that measure less than the unit specified for 1 space.  Where the width of the road is such that parking on both sides would cause an obstruction. In this instance one side of the road has been excluded from the capacity calculation.</p>	
<b>Parking excluded from stress calculation</b>	<p>Skips or any other non-vehicle occupying a parking space (but noted separately if observed).  Any illegal parking on double yellow lines, crossovers, keep clear lines etc (but noted separately if observed).</p>	
<b>Terminology</b>	<p>"Parking Stress" - Calculation to express the number of parked vehicles as a percentage of available parking for each parking type. Stress can be over 100% if cars are small and/or parked very closely together.  "Parking Capacity Calculation" - Measurement of each length of road between illegal parking (e.g. crossovers, traffic islands, double yellow etc) converted into parking spaces by rounding down to the nearest unit assigned to one parking space and dividing this figure by the unit.  "Lengthwise Parking" - Vehicles parked in a lengthwise orientation with wheels parallel to the kerbside.  "Crosswise Parking" - Vehicles parked in a crosswise orientation (as seen in car parks or wide sections of road)</p>	

**SITE PLAN**  
**KINGSTON UPON THAMES**  
**CAMBRIDGE ROAD ESTATE (OFF-SITE EXTENT)**  
PARKING BEAT STREET INVENTORY MAP



	Unrestricted		Crossover
	Permit Holders Only (N) Mon-Fri 10am-3pm		Too Narrow
	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm		7.5 Meters From Junction
	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours		Private Parking
	Disabled Permit Holders		Build Out
	Single Yellow (No Parking Mon-Sat 7am-7pm)		Keep Clear
	Loading Only 30 Mins - No Return Within 1 Hour		Double Yellow
	Car Club Only		Crossing
			White Zig Zags
			Bus Stop



**PARKING STRESS TABLES - BY RESTRICTION**

Restriction 1				Unrestricted						
Location	Lengthwise Parking (m)	Lengthwise Spaces	Marked/Crosswise Bays	Total Spaces	TUESDAY 16 JUNE 2020			WEDNESDAY 17 JUNE 2020		
					01:00			01:00		
					Occupied	Spaces	Stress (%)	Occupied	Spaces	Stress (%)
Cambridge Road	10	2	1	3	3	0	100%	2	1	67%
Waters Road	20	4	0	4	4	0	100%	4	0	100%
Cambridge Grove Road (Spur off Cambridge Road)	45	9	0	9	8	1	89%	8	1	89%
St Peters Road	20	4	0	4	0	4	0%	0	4	0%
Hampden Road	40	8	0	8	7	1	88%	8	0	100%
<b>Total</b>	<b>135</b>	<b>27</b>	<b>1</b>	<b>28</b>	<b>22</b>	<b>6</b>	<b>79%</b>	<b>22</b>	<b>6</b>	<b>79%</b>

Restriction 2				Permit Holders Only (N) Mon-Fri 10am-3pm						
Location	Lengthwise Parking (m)	Lengthwise Spaces	Marked/Crosswise Bays	Total Spaces	TUESDAY 16 JUNE 2020			WEDNESDAY 17 JUNE 2020		
					01:00			01:00		
					Occupied	Spaces	Stress (%)	Occupied	Spaces	Stress (%)
Gloucester Road	70	14	1	15	6	9	40%	7	8	47%
<b>Total</b>	<b>70</b>	<b>14</b>	<b>1</b>	<b>15</b>	<b>6</b>	<b>9</b>	<b>40%</b>	<b>7</b>	<b>8</b>	<b>47%</b>

Restriction 3				Permit Holders Only (N) Mon-Fri 8:30am-6:30pm						
Location	Lengthwise Parking (m)	Lengthwise Spaces	Marked/Crosswise Bays	Total Spaces	TUESDAY 16 JUNE 2020			WEDNESDAY 17 JUNE 2020		
					01:00			01:00		
					Occupied	Spaces	Stress (%)	Occupied	Spaces	Stress (%)
Chatham Road	155	31	1	32	27	5	84%	25	7	78%
Clevedon Road	65	13	0	13	10	3	77%	11	2	85%
Rayleigh Court	25	5	4	9	10	0	111%	10	0	111%
Hampden Road	165	33	0	33	25	8	76%	27	6	82%
Vincent Road	165	33	0	33	23	10	70%	22	11	67%
Gladstone Road	85	17	0	17	12	5	71%	13	4	76%
Cambridge Grove Road (Spur Off Bonner Hill Road)	65	13	0	13	9	4	69%	9	4	69%
Piper Road	130	26	0	26	15	11	58%	16	10	62%
Portman Road	205	41	0	41	32	9	78%	30	11	73%
Somerset Road	290	58	0	58	41	17	71%	42	16	72%
Linden Crescent	115	23	0	23	21	2	91%	20	3	87%
Bonner Hill Road	380	76	0	76	38	38	50%	40	36	53%
Rowlls Road	140	28	0	28	25	3	89%	25	3	89%
Victoria Road	50	10	0	10	9	1	90%	8	2	80%
<b>Total</b>	<b>2035</b>	<b>407</b>	<b>5</b>	<b>412</b>	<b>297</b>	<b>116</b>	<b>72%</b>	<b>298</b>	<b>115</b>	<b>72%</b>

Restriction 4					Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours					
Location	Lengthwise Parking (m)	Lengthwise Spaces	Marked/Crosswise Bays	Total Spaces	TUESDAY 16 JUNE 2020			WEDNESDAY 17 JUNE 2020		
					01:00			01:00		
					Occupied	Spaces	Stress (%)	Occupied	Spaces	Stress (%)
Chatham Road	35	7	0	7	7	0	100%	7	0	100%
Clevedon Road	25	5	0	5	2	3	40%	3	2	60%
Church Road	15	3	0	3	2	1	67%	2	1	67%
Burritt Road	15	3	0	3	2	1	67%	2	1	67%
Vincent Road	75	15	1	16	3	13	19%	5	11	31%
Linden Crescent	45	9	0	9	10	0	111%	10	0	111%
Bonner Hill Road	440	88	0	88	36	52	41%	35	53	40%
Rowlls Road	95	19	0	19	9	10	47%	10	9	53%
Victoria Road	25	5	0	5	4	1	80%	4	1	80%
<b>Total</b>	<b>770</b>	<b>154</b>	<b>1</b>	<b>155</b>	<b>75</b>	<b>81</b>	<b>48%</b>	<b>78</b>	<b>78</b>	<b>50%</b>

Restriction 5					Disabled Permit Holders					
Location	Lengthwise Parking (m)	Lengthwise Spaces	Marked/Crosswise Bays	Total Spaces	TUESDAY 16 JUNE 2020			WEDNESDAY 17 JUNE 2020		
					01:00			01:00		
					Occupied	Spaces	Stress (%)	Occupied	Spaces	Stress (%)
Chatham Road	0	0	1	1	0	1	0%	1	0	100%
Gladstone Road	0	0	2	2	2	0	100%	2	0	100%
Rowlls Road	0	0	2	2	1	1	50%	1	1	50%
<b>Total</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>5</b>	<b>3</b>	<b>2</b>	<b>60%</b>	<b>4</b>	<b>1</b>	<b>80%</b>

Restriction 6					Single Yellow (No Parking Mon-Sat 7am-7pm)					
Location	Lengthwise Parking (m)	Lengthwise Spaces	Marked/Crosswise Bays	Total Spaces	TUESDAY 16 JUNE 2020			WEDNESDAY 17 JUNE 2020		
					01:00			01:00		
					Occupied	Spaces	Stress (%)	Occupied	Spaces	Stress (%)
Cambridge Road	500	100	0	100	0	100	0%	0	100	0%
Waters Road	15	3	0	3	0	3	0%	0	3	0%
Chatham Road	35	7	0	7	0	7	0%	0	7	0%
Clevedon Road	10	2	0	2	0	2	0%	0	2	0%
Church Road	65	13	0	13	0	13	0%	0	13	0%
School Passage	55	11	0	11	0	11	0%	0	11	0%
School Passage Spur	10	2	0	2	0	2	0%	0	2	0%
Hawks Road	360	72	0	72	0	72	0%	0	72	0%
Hampden Road	60	12	0	12	0	12	0%	0	12	0%
Vincent Road	20	4	0	4	0	4	0%	0	4	0%
Gladstone Road	5	1	0	1	0	1	0%	0	1	0%
Cambridge Grove Road (Spur Off Bonner Hill Road)	20	4	2	6	0	6	0%	0	6	0%
Piper Road	10	2	0	2	0	2	0%	0	2	0%
Portman Road	10	2	0	2	0	2	0%	0	2	0%
Bonner Hill Road	25	5	0	5	0	5	0%	0	5	0%
Rowlls Road	5	1	0	1	0	1	0%	0	1	0%
Victoria Road	10	2	0	2	0	2	0%	0	2	0%
<b>Total</b>	<b>1215</b>	<b>243</b>	<b>2</b>	<b>245</b>	<b>0</b>	<b>245</b>	<b>0%</b>	<b>0</b>	<b>245</b>	<b>0%</b>

Restriction 7					Loading Only 30 Mins - No Return Within 1 Hour					
Location	Lengthwise Parking (m)	Lengthwise Spaces	Marked/Crosswise Bays	Total Spaces	TUESDAY 16 JUNE 2020			WEDNESDAY 17 JUNE 2020		
					01:00			01:00		
					Occupied	Spaces	Stress (%)	Occupied	Spaces	Stress (%)
Hampden Road	10	2	0	2	0	2	0%	0	2	0%
<b>Total</b>	<b>10</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0%</b>	<b>0</b>	<b>2</b>	<b>0%</b>

Restriction 8					Car Club Only					
Location	Lengthwise Parking (m)	Lengthwise Spaces	Marked/Crosswise Bays	Total Spaces	TUESDAY 16 JUNE 2020			WEDNESDAY 17 JUNE 2020		
					01:00			01:00		
					Occupied	Spaces	Stress (%)	Occupied	Spaces	Stress (%)
Bonner Hill Road	5	1	0	1	0	1	0%	1	0	100%
<b>Total</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0%</b>	<b>1</b>	<b>0</b>	<b>100%</b>

Illegal/Obstructive Parking				TUESDAY 16 JUNE 2020		WEDNESDAY 17 JUNE 2020	
Location	Description	01:00		01:00			
		Occupied	Spaces	Occupied	Spaces		
Bonner Hill Road	Skip	1		1			
Piper Road	Skip	2		2			
<b>Total</b>		<b>3</b>		<b>3</b>			

**PARKING STRESS TABLES - BY PARKING AREA/ROAD**

Location	Lengthwise Parking (m)	Lengthwise Spaces	Marked/Crosswise Bays	Total Spaces		TUESDAY 16 JUNE 2020			WEDNESDAY 17 JUNE 2020		
						00:30			00:30		
						Occupied	Spaces	Stress (%)	Occupied	Spaces	Stress (%)
Bonner Hill Road	380	76	0	76	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	38	38	50%	40	36	53%
Bonner Hill Road	440	88	0	88	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	36	52	41%	35	53	40%
Bonner Hill Road	25	5	0	5	Single Yellow (No Parking Mon-Sat 7am-7pm)	0	5	0%	0	5	0%
Bonner Hill Road	5	1	0	1	Car Club Only	0	1	0%	1	0	100%
<b>Total</b>	<b>850</b>	<b>170</b>	<b>0</b>	<b>170</b>		<b>74</b>	<b>96</b>	<b>44%</b>	<b>76</b>	<b>94</b>	<b>45%</b>
Burritt Road	15	3	0	3	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	2	1	67%	2	1	67%
<b>Total</b>	<b>15</b>	<b>3</b>	<b>0</b>	<b>3</b>		<b>2</b>	<b>1</b>	<b>67%</b>	<b>2</b>	<b>1</b>	<b>67%</b>
Cambridge Grove Road (Spur Off Bonner Hill Road)	65	13	0	13	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	9	4	69%	9	4	69%
Cambridge Grove Road (Spur Off Bonner Hill Road)	20	4	2	6	Single Yellow (No Parking Mon-Sat 7am-7pm)	0	6	0%	0	6	0%
Cambridge Grove Road (Spur off Cambridge Road)	45	9	0	9	Unrestricted	8	1	89%	8	1	89%
<b>Total</b>	<b>130</b>	<b>26</b>	<b>2</b>	<b>28</b>		<b>17</b>	<b>11</b>	<b>61%</b>	<b>17</b>	<b>11</b>	<b>61%</b>
Cambridge Road	10	2	1	3	Unrestricted	3	0	100%	2	1	67%
Cambridge Road	500	100	0	100	Single Yellow (No Parking Mon-Sat 7am-7pm)	0	100	0%	0	100	0%
<b>Total</b>	<b>510</b>	<b>102</b>	<b>1</b>	<b>103</b>		<b>3</b>	<b>100</b>	<b>3%</b>	<b>2</b>	<b>101</b>	<b>2%</b>
Chatham Road	155	31	1	32	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	27	5	84%	25	7	78%
Chatham Road	35	7	0	7	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	7	0	100%	7	0	100%
Chatham Road	0	0	1	1	Disabled Permit Holders	0	1	0%	1	0	100%
Chatham Road	35	7	0	7	Single Yellow (No Parking Mon-Sat 7am-7pm)	0	7	0%	0	7	0%
<b>Total</b>	<b>225</b>	<b>45</b>	<b>2</b>	<b>47</b>		<b>34</b>	<b>13</b>	<b>72%</b>	<b>33</b>	<b>14</b>	<b>70%</b>
Church Road	15	3	0	3	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	2	1	67%	2	1	67%
Church Road	65	13	0	13	Single Yellow (No Parking Mon-Sat 7am-7pm)	0	13	0%	0	13	0%
<b>Total</b>	<b>80</b>	<b>16</b>	<b>0</b>	<b>16</b>		<b>2</b>	<b>14</b>	<b>13%</b>	<b>2</b>	<b>14</b>	<b>13%</b>
Clevedon Road	65	13	0	13	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	10	3	77%	11	2	85%
Clevedon Road	25	5	0	5	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	2	3	40%	3	2	60%
Clevedon Road	10	2	0	2	Single Yellow (No Parking Mon-Sat 7am-7pm)	0	2	0%	0	2	0%
<b>Total</b>	<b>100</b>	<b>20</b>	<b>0</b>	<b>20</b>		<b>12</b>	<b>8</b>	<b>60%</b>	<b>14</b>	<b>6</b>	<b>70%</b>
Gladstone Road	85	17	0	17	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	12	5	71%	13	4	76%
Gladstone Road	0	0	2	2	Disabled Permit Holders	2	0	100%	2	0	100%
Gladstone Road	5	1	0	1	Single Yellow (No Parking Mon-Sat 7am-7pm)	0	1	0%	0	1	0%
<b>Total</b>	<b>90</b>	<b>18</b>	<b>2</b>	<b>20</b>		<b>14</b>	<b>6</b>	<b>70%</b>	<b>15</b>	<b>5</b>	<b>75%</b>
Gloucester Road	70	14	1	15	Permit Holders Only (N) Mon-Fri 10am-3pm	6	9	40%	7	8	47%
<b>Total</b>	<b>70</b>	<b>14</b>	<b>1</b>	<b>15</b>		<b>6</b>	<b>9</b>	<b>40%</b>	<b>7</b>	<b>8</b>	<b>47%</b>
Hampden Road	40	8	0	8	Unrestricted	7	1	88%	8	0	100%
Hampden Road	165	33	0	33	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	25	8	76%	27	6	82%
Hampden Road	60	12	0	12	Single Yellow (No Parking Mon-Sat 7am-7pm)	0	12	0%	0	12	0%
Hampden Road	10	2	0	2	Loading Only 30 Mins - No Return Within 1 Hour	0	2	0%	0	2	0%
<b>Total</b>	<b>275</b>	<b>55</b>	<b>0</b>	<b>55</b>		<b>32</b>	<b>23</b>	<b>58%</b>	<b>35</b>	<b>20</b>	<b>64%</b>
Hawks Road	360	72	0	72	Single Yellow (No Parking Mon-Sat 7am-7pm)	0	72	0%	0	72	0%
<b>Total</b>	<b>360</b>	<b>72</b>	<b>0</b>	<b>72</b>		<b>0</b>	<b>72</b>	<b>0%</b>	<b>0</b>	<b>72</b>	<b>0%</b>
Linden Crescent	115	23	0	23	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	21	2	91%	20	3	87%
Linden Crescent	45	9	0	9	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	10	0	111%	10	0	111%
<b>Total</b>	<b>160</b>	<b>32</b>	<b>0</b>	<b>32</b>		<b>31</b>	<b>2</b>	<b>97%</b>	<b>30</b>	<b>3</b>	<b>94%</b>
Piper Road	130	26	0	26	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	15	11	58%	16	10	62%
Piper Road	10	2	0	2	Single Yellow (No Parking Mon-Sat 7am-7pm)	0	2	0%	0	2	0%
<b>Total</b>	<b>140</b>	<b>28</b>	<b>0</b>	<b>28</b>		<b>15</b>	<b>13</b>	<b>54%</b>	<b>16</b>	<b>12</b>	<b>57%</b>
Portman Road	205	41	0	41	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	32	9	78%	30	11	73%
Portman Road	10	2	0	2	Single Yellow (No Parking Mon-Sat 7am-7pm)	0	2	0%	0	2	0%
<b>Total</b>	<b>215</b>	<b>43</b>	<b>0</b>	<b>43</b>		<b>32</b>	<b>11</b>	<b>74%</b>	<b>30</b>	<b>13</b>	<b>70%</b>
Rayleigh Court	25	5	4	9	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	10	0	111%	10	0	111%
<b>Total</b>	<b>25</b>	<b>5</b>	<b>4</b>	<b>9</b>		<b>10</b>	<b>0</b>	<b>111%</b>	<b>10</b>	<b>0</b>	<b>111%</b>
Rowlls Road	140	28	0	28	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	25	3	89%	25	3	89%
Rowlls Road	95	19	0	19	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	9	10	47%	10	9	53%
Rowlls Road	0	0	2	2	Disabled Permit Holders	1	1	50%	1	1	50%
Rowlls Road	5	1	0	1	Single Yellow (No Parking Mon-Sat 7am-7pm)	0	1	0%	0	1	0%
<b>Total</b>	<b>240</b>	<b>48</b>	<b>2</b>	<b>50</b>		<b>35</b>	<b>15</b>	<b>70%</b>	<b>36</b>	<b>14</b>	<b>72%</b>
School Passage	55	11	0	11	Single Yellow (No Parking Mon-Sat 7am-7pm)	0	11	0%	0	11	0%
<b>Total</b>	<b>55</b>	<b>11</b>	<b>0</b>	<b>11</b>		<b>0</b>	<b>11</b>	<b>0%</b>	<b>0</b>	<b>11</b>	<b>0%</b>
School Passage Spur	10	2	0	2	Single Yellow (No Parking Mon-Sat 7am-7pm)	0	2	0%	0	2	0%
<b>Total</b>	<b>10</b>	<b>2</b>	<b>0</b>	<b>2</b>		<b>0</b>	<b>2</b>	<b>0%</b>	<b>0</b>	<b>2</b>	<b>0%</b>
Somerset Road	290	58	0	58	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	41	17	71%	42	16	72%
<b>Total</b>	<b>290</b>	<b>58</b>	<b>0</b>	<b>58</b>		<b>41</b>	<b>17</b>	<b>71%</b>	<b>42</b>	<b>16</b>	<b>72%</b>
St Peters Road	20	4	0	4	Unrestricted	0	4	0%	0	4	0%
<b>Total</b>	<b>20</b>	<b>4</b>	<b>0</b>	<b>4</b>		<b>0</b>	<b>4</b>	<b>0%</b>	<b>0</b>	<b>4</b>	<b>0%</b>
Victoria Road	50	10	0	10	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	9	1	90%	8	2	80%
Victoria Road	25	5	0	5	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	4	1	80%	4	1	80%
Victoria Road	10	2	0	2	Single Yellow (No Parking Mon-Sat 7am-7pm)	0	2	0%	0	2	0%
<b>Total</b>	<b>85</b>	<b>17</b>	<b>0</b>	<b>17</b>		<b>13</b>	<b>4</b>	<b>76%</b>	<b>12</b>	<b>5</b>	<b>71%</b>
Vincent Road	165	33	0	33	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	23	10	70%	22	11	67%
Vincent Road	75	15	1	16	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	3	13	19%	5	11	31%
Vincent Road	20	4	0	4	Single Yellow (No Parking Mon-Sat 7am-7pm)	0	4	0%	0	4	0%
<b>Total</b>	<b>260</b>	<b>52</b>	<b>1</b>	<b>53</b>		<b>26</b>	<b>27</b>	<b>49%</b>	<b>27</b>	<b>26</b>	<b>51%</b>
Waters Road	20	4	0	4	Unrestricted	4	0	100%	4	0	100%
Waters Road	15	3	0	3	Single Yellow (No Parking Mon-Sat 7am-7pm)	0	3	0%	0	3	0%
<b>Total</b>	<b>35</b>	<b>7</b>	<b>0</b>	<b>7</b>		<b>4</b>	<b>3</b>	<b>57%</b>	<b>4</b>	<b>3</b>	<b>57%</b>

## PARKING CAPACITY MEASUREMENTS

A working table showing kerbside measurements for each parking type.

Location	Side of Road & Measuring Orientation	Parking Type	Section Length (m)	Crosswise Spaces or Lengthwise Marked Bays	Number of Crosswise Spaces or Marked Bays	Unit Round Down (If Lengthwise & Unmarked)	Total Spaces
Cambridge Road	S E-W	Crossover	14			10	2
Cambridge Road	S E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	22.4			20	4
Cambridge Road	S E-W	Crossover	7.7			5	1
Cambridge Road	S E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	9.8			5	1
Cambridge Road	S E-W	Crossover	9.1			5	1
Cambridge Road	S E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	27.3			25	5
Cambridge Road	S E-W	Crossing	6.3			5	1
Cambridge Road	S E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	9.1			5	1
Cambridge Road	S E-W	Junction	17.5			15	3
Cambridge Road	S E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	23.8			20	4
Cambridge Road	S E-W	Crossover	6.3			5	1
Cambridge Road	S E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	23.8			20	4
Cambridge Road	S E-W	White Zig Zags	18.2			15	3
Cambridge Road	S E-W	Crossing	8.4			5	1
Cambridge Road	S E-W	White Zig Zags	17.5			15	3
Cambridge Road	S E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	34.3			30	6
Cambridge Road	S E-W	Bus Stop	38.5			35	7
Cambridge Road	S E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	9.1			5	1
Cambridge Road	S E-W	White Zig Zags	18.2			15	3
Cambridge Road	S E-W	Crossing	9.1			5	1
Cambridge Road	S E-W	White Zig Zags	6.3			5	1
Cambridge Road	S E-W	Junction	11.9			10	2
Cambridge Road	S E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	58.8			55	11
Cambridge Road	S E-W	Junction	14			10	2
Cambridge Road	S E-W	Too Narrow	56			55	11
Cambridge Road	S E-W	Junction	9.1			5	1
Cambridge Road	S E-W	Double Yellow	9.1			5	1
Cambridge Road	S E-W	Crossing	3.5			0	0
Cambridge Road	S E-W	Junction	18.9			15	3
Cambridge Road	S E-W	Double Yellow	11.9			10	2
Cambridge Road	S E-W	Crossing	3.5			0	0
Cambridge Road	S E-W	Double Yellow	14			10	2
Cambridge Road	S E-W	Crossover	11.2			10	2
Cambridge Road	S E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	9.8			5	1
Cambridge Road	S E-W	Crossover	4.2			0	0
Cambridge Road	S E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
Cambridge Road	S E-W	Crossover	6.3			5	1
Cambridge Road	S E-W	Bus Stop	61.6			60	12
Cambridge Road	S E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	25.9			25	5
Cambridge Road	S E-W	Junction	14			10	2
Cambridge Road	S E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	8.4			5	1
Cambridge Road	S E-W	Junction	13.3			10	2
Cambridge Road	S E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	25.9			25	5
Cambridge Road	S E-W	Too Narrow	14.7			10	2
Cambridge Road	S E-W	Crossing	6.3			5	1
Cambridge Road	N W-E	Crossing	5.6			5	1
Cambridge Road	N W-E	Too Narrow	17.5			15	3
Cambridge Road	N W-E	Double Yellow	53.9			50	10
Cambridge Road	N W-E	Bus Stop	36.4			35	7
Cambridge Road	N W-E	Double Yellow	22.4			20	4
Cambridge Road	N W-E	Junction	11.2			10	2
Cambridge Road	N W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	41.3			40	8
Cambridge Road	N W-E	Double Yellow	21			20	4
Cambridge Road	N W-E	Crossing	3.5			0	0
Cambridge Road	N W-E	Junction	7.7			5	1
Cambridge Road	N W-E	Double Yellow	18.9			15	3
Cambridge Road	N W-E	Crossing	3.5			0	0
Cambridge Road	N W-E	Double Yellow	38.5			35	7
Cambridge Road	N W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	7			5	1
Cambridge Road	N W-E	Crossover	5.6			5	1
Cambridge Road	N W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	98			95	19
Cambridge Road	N W-E	White Zig Zags	18.2			15	3
Cambridge Road	N W-E	Crossing	9.1			5	1
Cambridge Road	N W-E	White Zig Zags	12.6			10	2
Cambridge Road	N W-E	Bus Stop	40.6			40	8
Cambridge Road	N W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	19.6			15	3
Cambridge Road	N W-E	Crossover	7.7			5	1
Cambridge Road	N W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	18.2			15	3
Cambridge Road	N W-E	White Zig Zags	17.5			15	3
Cambridge Road	N W-E	Crossing	9.1			5	1
Cambridge Road	N W-E	White Zig Zags	18.2			15	3
Cambridge Road	N W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
Cambridge Road	N W-E	Junction	16.8			15	3
Cambridge Road	N W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	17.5			15	3
Cambridge Road	N W-E	Crossover	5.6			5	1
Cambridge Road	N W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
Cambridge Road	N W-E	Unrestricted	4.9	LW	1		1
Cambridge Road	N W-E	Crossover	5.6			5	1
Cambridge Road	N W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
Cambridge Road	N W-E	Crossover	3.5			0	0
Cambridge Road	N W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
Cambridge Road	N W-E	Crossover	3.5			0	0
Cambridge Road	N W-E	Crossing	7			5	1

Cambridge Road	N WE	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
Cambridge Road	N WE	Crossover	6.3			5	1
Cambridge Road	N WE	Single Yellow (No Parking Mon-Sat 7am-7pm)	42			40	8
Cambridge Road	N WE	Junction	18.9			15	3
Cambridge Road	N WE	Single Yellow (No Parking Mon-Sat 7am-7pm)	4.9			0	0
Cambridge Road	N WE	Unrestricted	10			10	2
Waters Road	E S-N	7.5 Meters From Junction	7.5			5	1
Waters Road	E S-N	Single Yellow (No Parking Mon-Sat 7am-7pm)	11.2			10	2
Waters Road	E S-N	Unrestricted	11.2			10	2
Waters Road	W N-S	Unrestricted	11.2			10	2
Waters Road	W N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	9.1			5	1
Waters Road	W N-S	7.5 Meters From Junction	7.5			5	1
Gloucester Road	E S-N	Double Yellow	23.1			20	4
Gloucester Road	E S-N	Permit Holders Only (N) Mon-Fri 10am-3pm	4.9	LW	1		1
Gloucester Road	E S-N	Crossover	8.4			5	1
Gloucester Road	E S-N	Permit Holders Only (N) Mon-Fri 10am-3pm	9.1			5	1
Gloucester Road	E S-N	Crossover	11.9			10	2
Gloucester Road	E S-N	Permit Holders Only (N) Mon-Fri 10am-3pm	7.7			5	1
Gloucester Road	E S-N	Crossover	9.1			5	1
Gloucester Road	E S-N	Single Yellow (No Parking Mon-Sat 7am-7pm)	2.8			0	0
Gloucester Road	E S-N	Crossover	11			10	2
Gloucester Road	E S-N	Build Out	4.2			0	0
Gloucester Road	E S-N	Crossover	5.6			5	1
Gloucester Road	E S-N	Permit Holders Only (N) Mon-Fri 10am-3pm	30.8			30	6
Gloucester Road	E S-N	Crossover	6.3			5	1
Gloucester Road	E S-N	Permit Holders Only (N) Mon-Fri 10am-3pm	11.2			10	2
Gloucester Road	W N-S	Double Yellow	8.4			5	1
Gloucester Road	W N-S	Permit Holders Only (N) Mon-Fri 10am-3pm	13			10	2
Gloucester Road	W N-S	Crossover	7.7			5	1
Gloucester Road	W N-S	Permit Holders Only (N) Mon-Fri 10am-3pm	7			5	1
Gloucester Road	W N-S	Crossover	13.3			10	2
Gloucester Road	W N-S	Build Out	4.2			0	0
Gloucester Road	W N-S	Crossover	19.6			15	3
Gloucester Road	W N-S	Permit Holders Only (N) Mon-Fri 10am-3pm	5.6			5	1
Gloucester Road	W N-S	Crossover	43.4			40	8
Gloucester Road	W N-S	Double Yellow	23.8			20	4
Cambridge Grove Road (Spur off Cambridge Road)	E N-S	7.5 Meters From Junction	7.5			5	1
Cambridge Grove Road (Spur off Cambridge Road)	E N-S	Unrestricted	24.5			20	4
Cambridge Grove Road (Spur off Cambridge Road)	W S-N	Unrestricted	26.1			25	5
Cambridge Grove Road (Spur off Cambridge Road)	W S-N	7.5 Meters From Junction	7.5			5	1
St Peters Road	E N-S	7.5 Meters From Junction	7.5			5	1
St Peters Road	E N-S	Unrestricted	11.2			10	2
St Peters Road	W S-N	Unrestricted	14			10	2
St Peters Road	W S-N	7.5 Meters From Junction	7.5			5	1
Chatham Road	E S-N	7.5 Meters From Junction	7.5			5	1
Chatham Road	E S-N	Single Yellow (No Parking Mon-Sat 7am-7pm)	18.2			15	3
Chatham Road	E S-N	Crossover	4.9			0	0
Chatham Road	E S-N	Build Out	3.5			0	0
Chatham Road	E S-N	Keep Clear	5.6			5	1
Chatham Road	E S-N	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	14			10	2
Chatham Road	E S-N	Crossover	7			5	1
Chatham Road	E S-N	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	28			25	5
Chatham Road	E S-N	Crossover	8.4			5	1
Chatham Road	E S-N	Junction	9.8			5	1
Chatham Road	E S-N	Single Yellow (No Parking Mon-Sat 7am-7pm)	6.3			5	1
Chatham Road	E S-N	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	68.6			65	13
Chatham Road	W N-S	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	55			55	11
Chatham Road	W N-S	Crossover	5.6			5	1
Chatham Road	W N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	2.8			0	0
Chatham Road	W N-S	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	4.2	LW	1		1
Chatham Road	W N-S	Crossover	6.3			5	1
Chatham Road	W N-S	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	23.8			20	4
Chatham Road	W N-S	Disabled Permit Holders	6.3	LW	1		1
Chatham Road	W N-S	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	8.4			5	1
Chatham Road	W N-S	Crossover	4.9			0	0
Chatham Road	W N-S	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	5.6			5	1
Chatham Road	W N-S	Crossover	2.1			0	0
Chatham Road	W N-S	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	6.3			5	1
Chatham Road	W N-S	Keep Clear	5.6			5	1
Chatham Road	W N-S	Build Out	4.2			0	0
Chatham Road	W N-S	Crossover	7.7			5	1
Chatham Road	W N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	16.1			15	3
Chatham Road	W N-S	7.5 Meters From Junction	7.5			5	1
Clevedon Road	N WE	Single Yellow (No Parking Mon-Sat 7am-7pm)	6.3			5	1
Clevedon Road	N WE	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	9.8			5	1
Clevedon Road	N WE	Crossover	20.3			20	4
Clevedon Road	N WE	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	21			20	4
Clevedon Road	N WE	Single Yellow (No Parking Mon-Sat 7am-7pm)	7.5			5	1
Clevedon Road	S E-W	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	66.5			65	13
Clevedon Road	S E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	1.4			0	0
Rayleigh Court	E S-N	Double Yellow	51.8			50	10
Rayleigh Court	End E-W	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	9.8	CW	4		4
Rayleigh Court	W N-S	Double Yellow	4.9			0	0
Rayleigh Court	W N-S	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	14			10	2
Rayleigh Court	W N-S	Double Yellow	2.1			0	0
Rayleigh Court	W N-S	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	16.8			15	3
Rayleigh Court	W N-S	Double Yellow	16.8			15	3
Church Road	S E-W	7.5 Meters From Junction	7.5			5	1
Church Road	S E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	37.8			35	7
Church Road	S E-W	Crossover	3.5			0	0

Church Road	S E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	4.9			0	0
Church Road	S E-W	Junction	10			10	2
Church Road	S E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	1			0	0
Church Road	S E-W	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	10.2			10	2
Church Road	S E-W	Crossover	11.3			10	2
Church Road	S E-W	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	6			5	1
Church Road	N WE	Single Yellow (No Parking Mon-Sat 7am-7pm)	11.7			10	2
Church Road	N WE	Access Junction	17.9			15	3
Church Road	N WE	Single Yellow (No Parking Mon-Sat 7am-7pm)	11.7			10	2
Church Road	N WE	Crossover	9.8			5	1
Church Road	N WE	Single Yellow (No Parking Mon-Sat 7am-7pm)	8.4			5	1
Church Road	N WE	Crossover	4.2			0	0
Church Road	N WE	Single Yellow (No Parking Mon-Sat 7am-7pm)	8.4			5	1
Church Road	N WE	7.5 Meters From Junction	7.5			5	1
School Passage	End W-E	Crossover	6.3			5	1
School Passage	W N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
School Passage	W N-S	Crossover	9.8			5	1
School Passage	W N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	18.9			15	3
School Passage	W N-S	Crossover	4.2			0	0
School Passage	W N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	14			10	2
School Passage	W N-S	7.5 Meters From Junction	7.5			5	1
School Passage	E S-N	7.5 Meters From Junction	7.5			5	1
School Passage	E S-N	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
School Passage	E S-N	Junction	11.9			10	2
School Passage	E S-N	Single Yellow (No Parking Mon-Sat 7am-7pm)	21.7			20	4
School Passage	E S-N	Crossover	7.7			5	1
School Passage Spur	N WE	7.5 Meters From Junction	7.5			5	1
School Passage Spur	N WE	Single Yellow (No Parking Mon-Sat 7am-7pm)	10.1			10	2
School Passage Spur	End N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	4.9			0	0
School Passage Spur	S E-W	Crossover	4.2			0	0
School Passage Spur	S E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	3.5			0	0
School Passage Spur	S E-W	7.5 Meters From Junction	7.5			5	1
Hawks Road	N E-W	Crossing	2.8			0	0
Hawks Road	N E-W	Double Yellow	48.3			45	9
Hawks Road	N E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	4.9			0	0
Hawks Road	N E-W	Crossover	10.5			10	2
Hawks Road	N E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	6.3			5	1
Hawks Road	N E-W	Crossover	17.5			15	3
Hawks Road	N E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	24.5			20	4
Hawks Road	N E-W	Crossover	7.7			5	1
Hawks Road	N E-W	White Zig Zags	17.5			15	3
Hawks Road	N E-W	Crossing	5.6			5	1
Hawks Road	N E-W	White Zig Zags	1.4			0	0
Hawks Road	N E-W	Junction	14.7			10	2
Hawks Road	N E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	22.5			20	4
Hawks Road	N E-W	Crossover	7			5	1
Hawks Road	N E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	12.6			10	2
Hawks Road	N E-W	Crossover	25.2			25	5
Hawks Road	N E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	7			5	1
Hawks Road	N E-W	Crossover	5.6			5	1
Hawks Road	N E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	42			40	8
Hawks Road	N E-W	Crossover	4.2			0	0
Hawks Road	N E-W	White Zig Zags	18.2			15	3
Hawks Road	N E-W	Crossing	4.2			0	0
Hawks Road	N E-W	White Zig Zags	18.2			15	3
Hawks Road	N E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	6.3			5	1
Hawks Road	N E-W	Crossover	4.2			0	0
Hawks Road	N E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	11.9			10	2
Hawks Road	N E-W	Crossover	11.2			10	2
Hawks Road	N E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	25			25	5
Hawks Road	N E-W	Double Yellow	2.1			0	0
Hawks Road	S WE	Single Yellow (No Parking Mon-Sat 7am-7pm)	53.2			50	10
Hawks Road	S WE	Junction	20.3			20	4
Hawks Road	S WE	White Zig Zags	9.8			5	1
Hawks Road	S WE	Crossing	4.2			0	0
Hawks Road	S WE	White Zig Zags	18.2			15	3
Hawks Road	S WE	Single Yellow (No Parking Mon-Sat 7am-7pm)	105			105	21
Hawks Road	S WE	Junction	9.8			5	1
Hawks Road	S WE	White Zig Zags	14			10	2
Hawks Road	S WE	Crossing	4.9			0	0
Hawks Road	S WE	White Zig Zags	18.9			15	3
Hawks Road	S WE	Single Yellow (No Parking Mon-Sat 7am-7pm)	67.9			65	13
Hawks Road	S WE	Double Yellow	57.4			55	11
Hawks Road	S WE	Crossing	7			5	1
Hawks Road	S WE	Too Narrow	14			10	2
Hampden Road	E N-S	Double Yellow	41.3			40	8
Hampden Road	E N-S	Unrestricted	11.2			10	2
Hampden Road	E N-S	Crossover	8.4			5	1
Hampden Road	E N-S	Unrestricted	33.6			30	6
Hampden Road	E N-S	Keep Clear	6.3			5	1
Hampden Road	E N-S	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	54.6			50	10
Hampden Road	E N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	23.8			20	4
Hampden Road	E N-S	Crossover	4.9			0	0
Hampden Road	E N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
Hampden Road	E N-S	Crossover	4.9			0	0
Hampden Road	E N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	18.2			15	3
Hampden Road	E N-S	Crossover	51.1			50	10
Hampden Road	E N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	11.2			10	2
Hampden Road	End E-W	Crossover	5.6			5	1
Hampden Road	W S-N	Single Yellow (No Parking Mon-Sat 7am-7pm)	11.9			10	2

Hampden Road	W S-N	Crossover	9.8			5	1
Hampden Road	W S-N	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	17.5			15	3
Hampden Road	W S-N	Single Yellow (No Parking Mon-Sat 7am-7pm)	0.7			0	0
Hampden Road	W S-N	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	66.5			65	13
Hampden Road	W S-N	Double Yellow	4.2			0	0
Hampden Road	W S-N	Junction	6.3			5	1
Hampden Road	W S-N	Double Yellow	10.5			10	2
Hampden Road	W S-N	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	15.4			15	3
Hampden Road	W S-N	Crossover	7.7			5	1
Hampden Road	W S-N	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	9.1			5	1
Hampden Road	W S-N	Crossover	7.7			5	1
Hampden Road	W S-N	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	15.4			15	3
Hampden Road	W S-N	Double Yellow	5.6			5	1
Hampden Road	W S-N	Junction	11.2			10	2
Hampden Road	W S-N	Double Yellow	35			35	7
Hampden Road	W S-N	Junction	15.4			15	3
Hampden Road	W S-N	Double Yellow	4.9			0	0
Hampden Road	W S-N	Loading Only 30 Mins - No Return Within 1 Hour	12.6			10	2
Hampden Road	W S-N	Double Yellow	23.8			20	4
Burritt Road	N E-W	Double Yellow	7.7			5	1
Burritt Road	N E-W	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	16.8			15	3
Burritt Road	N E-W	Double Yellow	4.2			0	0
Burritt Road	S W-E	Double Yellow	30.8			30	6
Vincent Road	N E-W	Double Yellow	18.2			15	3
Vincent Road	N E-W	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	7.7			75	15
Vincent Road	N E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	2.1			0	0
Vincent Road	N E-W	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	4.2	LW	1		1
Vincent Road	N E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	3.5			0	0
Vincent Road	N E-W	Junction	16.1			15	3
Vincent Road	N E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	21.7			20	4
Vincent Road	N E-W	Crossover	37.8			35	7
Vincent Road	N E-W	7.5 Meters From Junction	7.5			5	1
Vincent Road	S W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	3.5			0	0
Vincent Road	S W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	15.4			15	3
Vincent Road	S W-E	Crossover	6.3			5	1
Vincent Road	S W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	150.5			150	30
Vincent Road	S W-E	Double Yellow	7			5	1
Gladstone Road	E N-S	Double Yellow	17.5			15	3
Gladstone Road	E N-S	Disabled Permit Holders	6.3	LW	1		1
Gladstone Road	E N-S	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	7			5	1
Gladstone Road	E N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	3.5			0	0
Gladstone Road	E N-S	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	11.9			10	2
Gladstone Road	E N-S	Crossover	5.6			5	1
Gladstone Road	E N-S	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	18.2			15	3
Gladstone Road	E N-S	Crossover	7			5	1
Gladstone Road	E N-S	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	15.4			15	3
Gladstone Road	E N-S	Crossover	8.4			5	1
Gladstone Road	E N-S	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	11.2			10	2
Gladstone Road	End E-W	Crossover	5.6			5	1
Gladstone Road	W S-N	Crossover	39.9			35	7
Gladstone Road	W S-N	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
Gladstone Road	W S-N	Crossover	3.5			0	0
Gladstone Road	W S-N	Single Yellow (No Parking Mon-Sat 7am-7pm)	2.8			0	0
Gladstone Road	W S-N	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	10.5			10	2
Gladstone Road	W S-N	Disabled Permit Holders	6.3	LW	1		1
Gladstone Road	W S-N	Crossover	7			5	1
Gladstone Road	W S-N	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	7.7			5	1
Gladstone Road	W S-N	Crossover	12.6			10	2
Gladstone Road	W S-N	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	15.4			15	3
Gladstone Road	W S-N	Double Yellow	7.7			5	1
Cambridge Grove Road (Spur Off Bonner Hill Road)	E S-N	7.5 Meters From Junction	7.5			5	1
Cambridge Grove Road (Spur Off Bonner Hill Road)	E S-N	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	69.3			65	13
Cambridge Grove Road (Spur Off Bonner Hill Road)	E S-N	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
Cambridge Grove Road (Spur Off Bonner Hill Road)	W N-S	Crossover	3.5			0	0
Cambridge Grove Road (Spur Off Bonner Hill Road)	W N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
Cambridge Grove Road (Spur Off Bonner Hill Road)	W N-S	Crossover	4.9			0	0
Cambridge Grove Road (Spur Off Bonner Hill Road)	W N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
Cambridge Grove Road (Spur Off Bonner Hill Road)	W N-S	Crossover	5.6			5	1
Cambridge Grove Road (Spur Off Bonner Hill Road)	W N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	11.9	CW	2		2
Cambridge Grove Road (Spur Off Bonner Hill Road)	W N-S	Crossover	28.7			25	5
Cambridge Grove Road (Spur Off Bonner Hill Road)	W N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
Cambridge Grove Road (Spur Off Bonner Hill Road)	W N-S	Crossover	4.9			0	0
Cambridge Grove Road (Spur Off Bonner Hill Road)	W N-S	7.5 Meters From Junction	7.5			5	1
Piper Road	E S-N	7.5 Meters From Junction	7.5			5	1
Piper Road	E S-N	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	14			10	2
Piper Road	E S-N	Crossover	11.2			10	2
Piper Road	E S-N	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	51.1			50	10
Piper Road	E S-N	Single Yellow (No Parking Mon-Sat 7am-7pm)	10.5			10	2
Piper Road	W S-N	7.5 Meters From Junction	4.9			0	0
Piper Road	W S-N	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	71.4			70	14
Piper Road	W S-N	Single Yellow (No Parking Mon-Sat 7am-7pm)	3.5			0	0
Piper Road	W S-N	Junction	9.8			5	1
Portman Road	E S-N	7.5 Meters From Junction	7.5			5	1
Portman Road	E S-N	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	110.6			110	22
Portman Road	E S-N	Crossover	11.2			10	2
Portman Road	E S-N	Single Yellow (No Parking Mon-Sat 7am-7pm)	12.6			10	2
Portman Road	E S-N	7.5 Meters From Junction	7.5			5	1
Portman Road	W N-S	7.5 Meters From Junction	7.5			5	1
Portman Road	W N-S	Crossover	7.7			5	1
Portman Road	W N-S	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	5.6			5	1

Portman Road	W N-S	Crossover	7			5	1
Portman Road	W N-S	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	36.4			35	7
Portman Road	W N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	4.2			0	0
Portman Road	W N-S	Junction	11.2			10	2
Portman Road	W N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	3.5			0	0
Portman Road	W N-S	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	56			55	11
Portman Road	W N-S	7.5 Meters From Junction	7.5			5	1
Somerset Road	S E-W	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	40.1			40	8
Somerset Road	S E-W	Build Out	3.5			0	0
Somerset Road	S E-W	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	66.5			65	13
Somerset Road	S E-W	Build Out	2.1			0	0
Somerset Road	S E-W	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	70.1			70	14
Somerset Road	S E-W	7.5 Meters From Junction	7.5			5	1
Somerset Road	N W-E	7.5 Meters From Junction	7.5			5	1
Somerset Road	N W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	42.7			40	8
Somerset Road	N W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	2.8			0	0
Somerset Road	N W-E	Junction	13.3			10	2
Somerset Road	N W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	2.1			0	0
Somerset Road	N W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	12.6			10	2
Somerset Road	N W-E	Build Out	3.5			0	0
Somerset Road	N W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	27.3			25	5
Somerset Road	N W-E	Crossover	5.6			5	1
Somerset Road	N W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	14			10	2
Somerset Road	N W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	2.8			0	0
Somerset Road	N W-E	Junction	11.9			10	2
Somerset Road	N W-E	Build Out	4.9			0	0
Somerset Road	N W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	14.7			10	2
Somerset Road	N W-E	Crossover	7			5	1
Somerset Road	N W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	24.5			20	4
Linden Crescent	W S-N	7.5 Meters From Junction	5.6			5	1
Linden Crescent	W S-N	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	11.2			10	2
Linden Crescent	W S-N	Crossover	6.3			5	1
Linden Crescent	W S-N	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	70.1			70	14
Linden Crescent	W S-N	Crossover	4.2			0	0
Linden Crescent	W S-N	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	12.6			10	2
Linden Crescent	W S-N	7.5 Meters From Junction	5.6			5	1
Linden Crescent	E N-S	7.5 Meters From Junction	5.6			5	1
Linden Crescent	E N-S	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	16.1			15	3
Linden Crescent	E N-S	Crossover	4.9			0	0
Linden Crescent	E N-S	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	45.5			45	9
Linden Crescent	E N-S	Crossover	11.2			10	2
Linden Crescent	E N-S	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	14			10	2
Linden Crescent	E N-S	7.5 Meters From Junction	5.6			5	1
Bonner Hill Road	N W-E	7.5 Meters From Junction	7.5			5	1
Bonner Hill Road	N W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	16.1			15	3
Bonner Hill Road	N W-E	Crossover	4.2			0	0
Bonner Hill Road	N W-E	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	18.9			15	3
Bonner Hill Road	N W-E	Crossover	7			5	1
Bonner Hill Road	N W-E	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	15.1			15	3
Bonner Hill Road	N W-E	Build Out	5.6			5	1
Bonner Hill Road	N W-E	Junction	7.7			5	1
Bonner Hill Road	N W-E	Build Out	3.5			0	0
Bonner Hill Road	N W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	11.2			10	2
Bonner Hill Road	N W-E	Crossover	6.3			5	1
Bonner Hill Road	N W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	8.4			5	1
Bonner Hill Road	N W-E	Crossover	5.6			5	1
Bonner Hill Road	N W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	29.4			25	5
Bonner Hill Road	N W-E	Build Out	6.3			5	1
Bonner Hill Road	N W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	11.9			10	2
Bonner Hill Road	N W-E	Crossover	4.9			0	0
Bonner Hill Road	N W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	11.2			10	2
Bonner Hill Road	N W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	4.2			0	0
Bonner Hill Road	N W-E	Junction	11.9			10	2
Bonner Hill Road	N W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	3.5			0	0
Bonner Hill Road	N W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	33.6			30	6
Bonner Hill Road	N W-E	Crossover	6.3			5	1
Bonner Hill Road	N W-E	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	108.5			105	21
Bonner Hill Road	N W-E	Crossover	6.3			5	1
Bonner Hill Road	N W-E	Junction	13.3			10	2
Bonner Hill Road	N W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	2.1			0	0
Bonner Hill Road	N W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	35			35	7
Bonner Hill Road	N W-E	Crossover	6.3			5	1
Bonner Hill Road	N W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	39.9			35	7
Bonner Hill Road	N W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	3.5			0	0
Bonner Hill Road	N W-E	Junction	9.1			5	1
Bonner Hill Road	N W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	3.5			0	0
Bonner Hill Road	N W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	28.7			25	5
Bonner Hill Road	N W-E	Build Out	9.1			5	1
Bonner Hill Road	N W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	15.4			15	3
Bonner Hill Road	N W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	4.2			0	0
Bonner Hill Road	N W-E	Junction	9.8			5	1
Bonner Hill Road	N W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	3.5			0	0
Bonner Hill Road	N W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	32.2			30	6
Bonner Hill Road	N W-E	Crossover	10.5			10	2
Bonner Hill Road	N W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	49			45	9
Bonner Hill Road	N W-E	Crossover	9.8			5	1
Bonner Hill Road	N W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	18.9			15	3
Bonner Hill Road	N W-E	Crossover	10.5			10	2
Bonner Hill Road	N W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	32.9			30	6
Bonner Hill Road	N W-E	Double Yellow	11.2			10	2

Bonner Hill Road	S E-W	Double Yellow	53.2			50	10
Bonner Hill Road	S E-W	Junction	16.8			15	3
Bonner Hill Road	S E-W	Double Yellow	63			60	12
Bonner Hill Road	S E-W	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	12.6			10	2
Bonner Hill Road	S E-W	Crossover	12			10	2
Bonner Hill Road	S E-W	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	44.8			40	8
Bonner Hill Road	S E-W	Build Out	9.1			5	1
Bonner Hill Road	S E-W	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	15.4			15	3
Bonner Hill Road	S E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	3.5			0	0
Bonner Hill Road	S E-W	Junction	10.5			10	2
Bonner Hill Road	S E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	14			10	2
Bonner Hill Road	S E-W	Crossover	4.2			0	0
Bonner Hill Road	S E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	4.2			0	0
Bonner Hill Road	S E-W	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	84.7			80	16
Bonner Hill Road	S E-W	Double Yellow	44.8			40	8
Bonner Hill Road	S E-W	Car Club Only	9.8			5	1
Bonner Hill Road	S E-W	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	150.1			150	30
Bonner Hill Road	S E-W	Build Out	6.3			5	1
Bonner Hill Road	S E-W	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	13.3			10	2
Bonner Hill Road	S E-W	Crossover	10.5			10	2
Bonner Hill Road	S E-W	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	25.9			25	5
Bonner Hill Road	S E-W	Crossover	37.1			35	7
Bonner Hill Road	S E-W	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	6.3			5	1
Bonner Hill Road	S E-W	Crossover	4.9			0	0
Bonner Hill Road	S E-W	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	20.3			20	4
Bonner Hill Road	S E-W	Crossover	4.9			0	0
Bonner Hill Road	S E-W	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	11.2			10	2
Bonner Hill Road	S E-W	7.5 Meters From Junction	7.5			5	1
Rowlls Road	N E-W	7.5 Meters From Junction	4.2			0	0
Rowlls Road	N E-W	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	42			40	8
Rowlls Road	N E-W	Crossover	7			5	1
Rowlls Road	N E-W	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	35			35	7
Rowlls Road	N E-W	Disabled Permit Holders	6.3	LW	1		1
Rowlls Road	N E-W	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	35.7			35	7
Rowlls Road	N E-W	Crossover	4.9			0	0
Rowlls Road	N E-W	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	5.6			5	1
Rowlls Road	N E-W	Crossover	5.6			5	1
Rowlls Road	N E-W	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	14.7			10	2
Rowlls Road	N E-W	7.5 Meters From Junction	5.6			5	1
Rowlls Road	S W-E	7.5 Meters From Junction	5.6			5	1
Rowlls Road	S W-E	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	21.7			20	4
Rowlls Road	S W-E	Crossover	5.6			5	1
Rowlls Road	S W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	32.2			30	6
Rowlls Road	S W-E	Crossover	7			5	1
Rowlls Road	S W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	14.7			10	2
Rowlls Road	S W-E	Disabled Permit Holders	6.3	LW	1		1
Rowlls Road	S W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	6.3			5	1
Rowlls Road	S W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
Rowlls Road	S W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	28			25	5
Rowlls Road	S W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	1.4			0	0
Rowlls Road	S W-E	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	22.1			20	4
Rowlls Road	S W-E	7.5 Meters From Junction	5.6			5	1
Victoria Road	S E-W	7.5 Meters From Junction	7.5			5	1
Victoria Road	S E-W	Too Narrow	107.8			105	21
Victoria Road	N W-E	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	54.1			50	10
Victoria Road	N W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	1.6			0	0
Victoria Road	N W-E	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	28.7			25	5
Victoria Road	N W-E	Crossover	10.6			10	2
Victoria Road	N W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	12.8			10	2
Victoria Road	N W-E	7.5 Meters From Junction	7.5			5	1
Camm Gardens	ALL	Private Parking	N/A			N/A	N/A
Ayliffe Close	ALL	Private Parking	N/A			N/A	N/A
Crescent Spur off Cambridge Road	ALL	Private Parking	N/A			N/A	N/A
Spurs off Chatham Road	ALL	Private Parking	N/A			N/A	N/A



**RADIAL**

UK PARKING BEAT  
SURVEY SPECIALISTS

**CAMBRIDGE ESTATE  
KINGSTON-UPON-THAMES  
SITE AREA 1**

**LOCATION OF PARKED VEHICLES**





**RADIAL**  
UK PARKING BEAT  
SURVEY SPECIALISTS

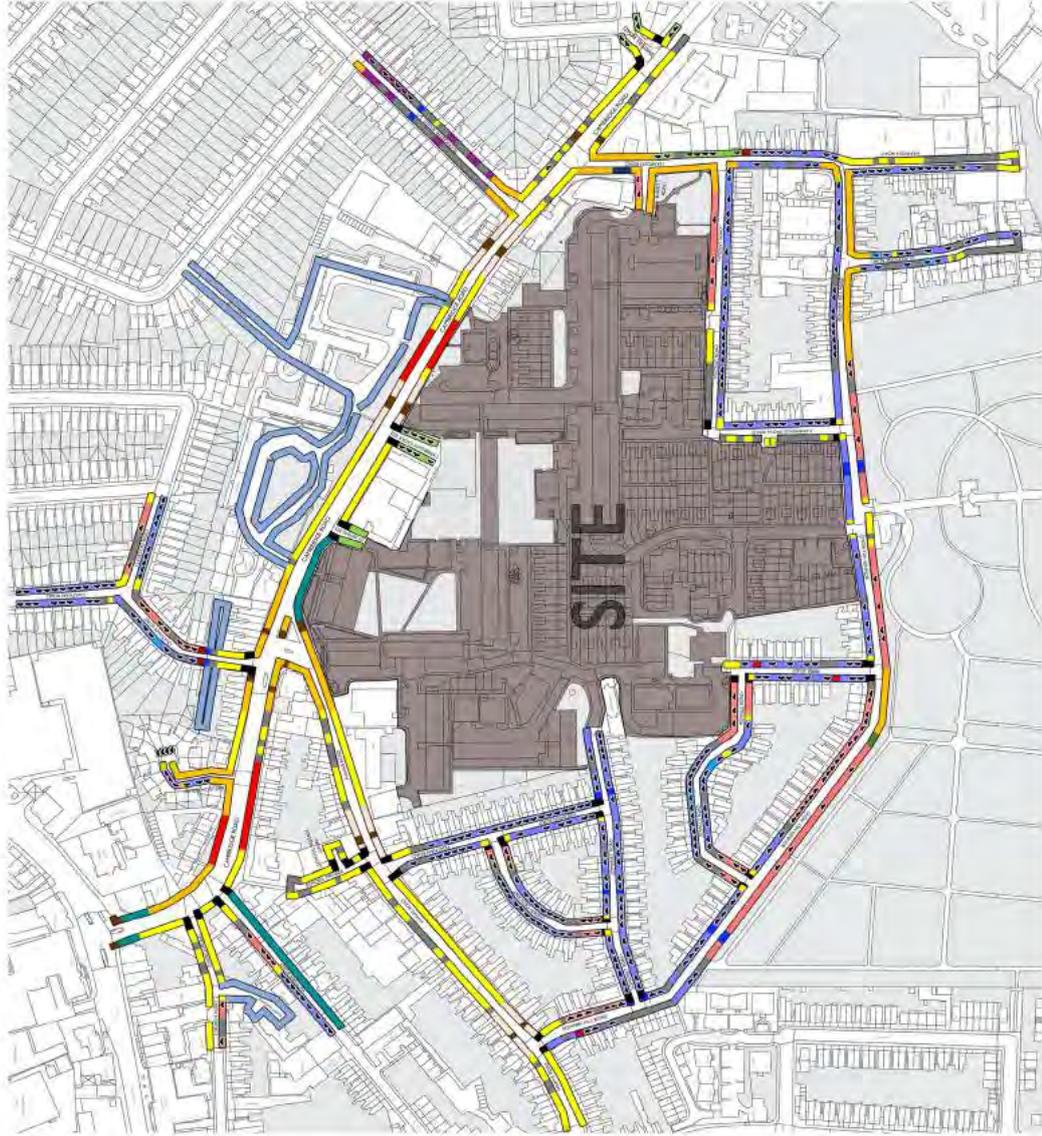
# SITE PLAN

## KINGSTON UPON THAMES

### CAMBRIDGE ROAD ESTATE (OFF-SITE EXTENT)

#### PARKING BEAT STREET INVENTORY MAP

TUESDAY 16 JUNE 2020 - 01:00

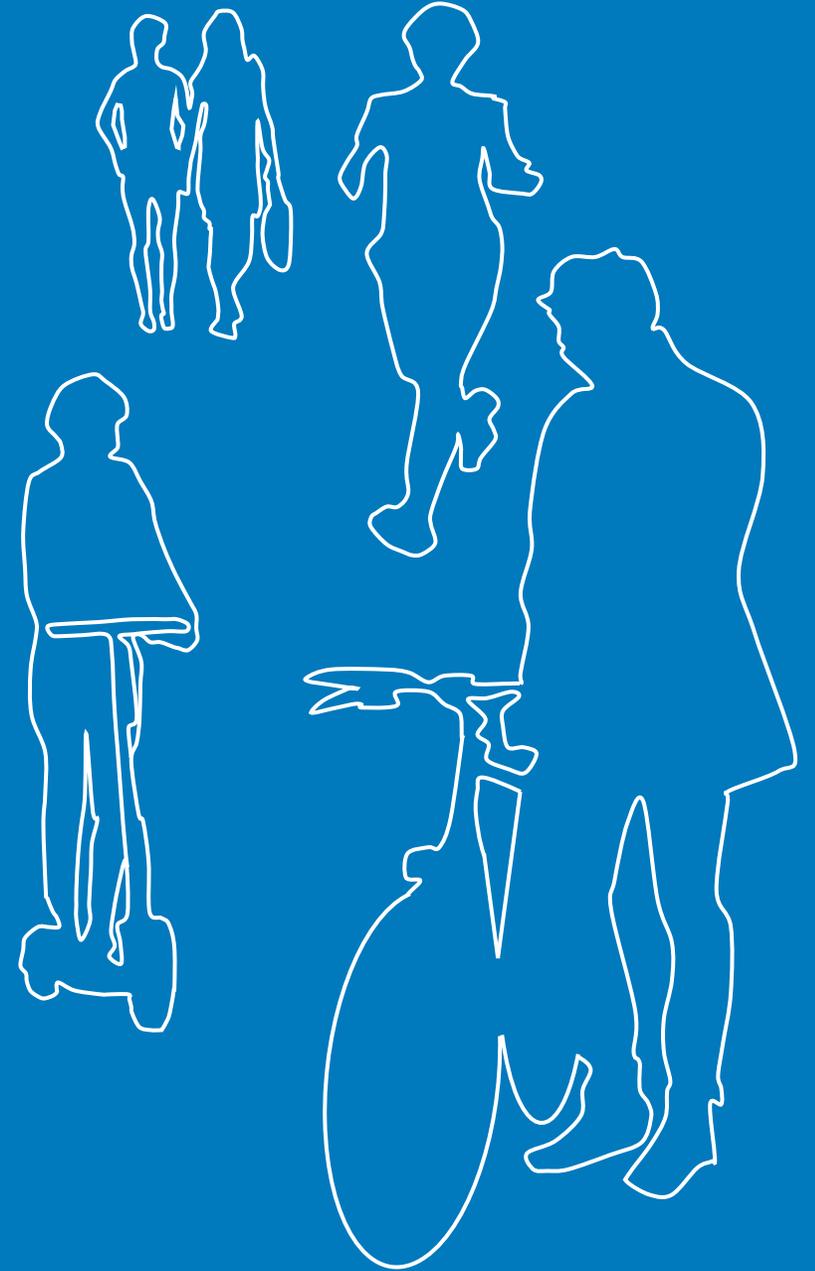


	Unrestricted
	Permit Holders Only (N) Mon-Fri 10am-3pm
	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm
	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours
	Disabled Permit Holders
	Single Yellow (No Parking Mon-Sat 7am-7pm)
	Loading Only 30 Mins - No Return Within 1 Hour
	Car Club Only
	Crossover
	Too Narrow
	7.5 Meters From Junction
	Private Parking
	Build Out
	Keep Clear
	Double Yellow
	Crossing
	White Zlg Zags
	Bus Stop
	Parked Vehicle
	Skip





# Appendix B – CRE Parking Beat Survey (Site 2)





**RADIAL**

UK PARKING BEAT  
SURVEY SPECIALISTS

**CAMBRIDGE ESTATE  
KINGSTON-UPON-THAMES  
SITE AREA 2**



**PARKING BEAT SURVEY**

**WEDNESDAY 8 JULY 2020 - 12:30AM**

**THURSDAY 9 JULY 2020 - 12:30AM**

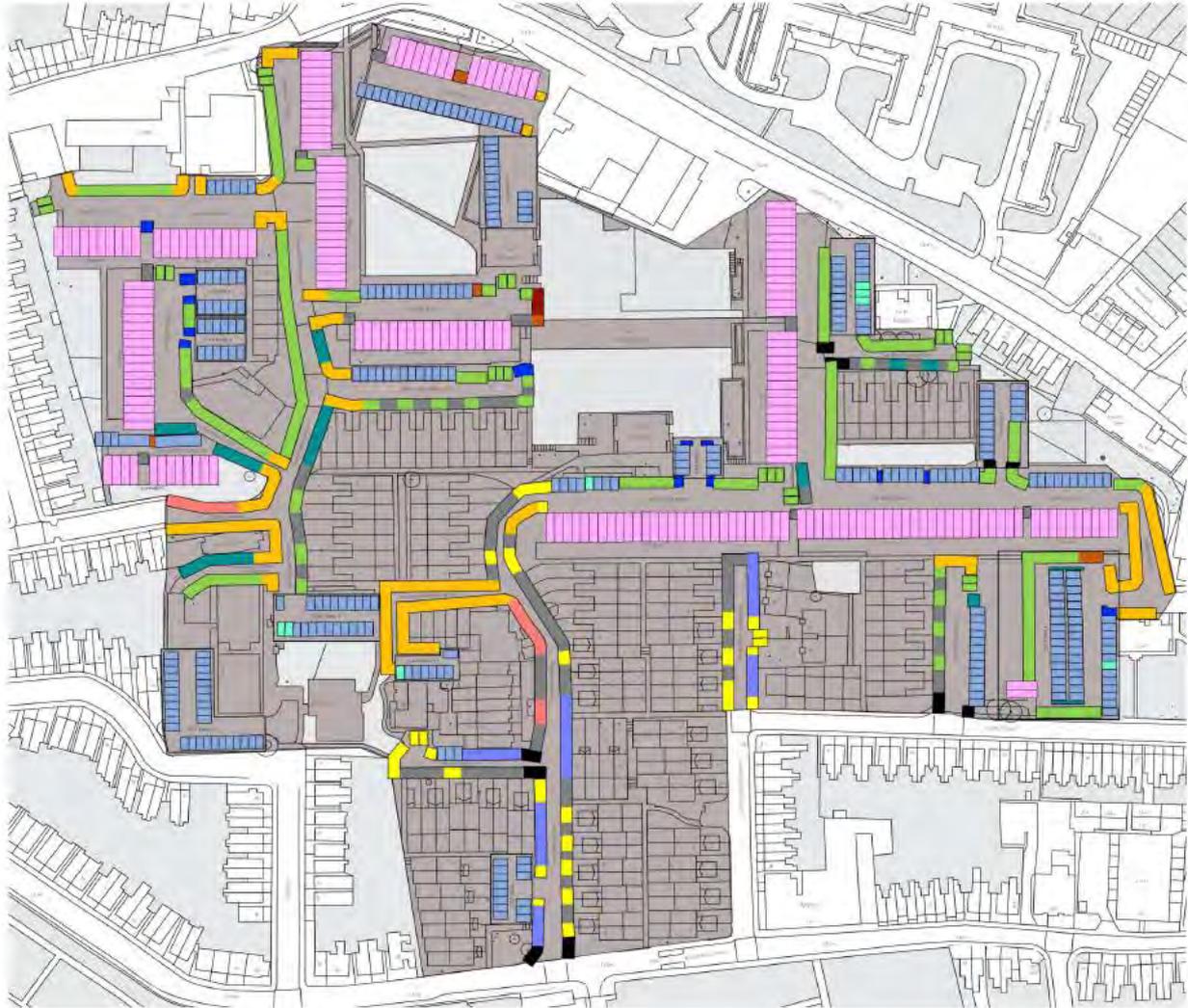
## SURVEY DETAILS

<b>Survey Type</b>	PARKING BEAT SURVEY	
<b>Methodology Guidance</b>	London Borough of Lambeth	
<b>Site</b>	KINGSTON UPON THAMES-CAMBRIDGE ROAD ESTATE	
<b>Survey Area</b>	EXTENT OF AREA SET BY CLIENT	
<b>Date/s</b>	WEDNESDAY 8 JULY 2020	THURSDAY 9 JULY 2020
<b>Time/s</b>	00:30	00:30
<b>Beat Frequency</b>	SNAPSHOT	
<b>Unit for 1 Unmarked Lengthwise Space (m)</b>	5	
<b>Unit for 1 Unmarked Crosswise Space (m)</b>	2.5	
<b>Areas Excluded From Survey</b>	Private parking spaces, private roads and off road parking (unless requested in survey specification).	
<b>Sections of road excluded from parking capacity calculation</b>	<p>First 7.5m from junction mouth (for reasons of highway safety).  Crossovers, dropped kerbs, build-outs, traffic islands, 24/7 illegal parking.  Sections of legal lengthwise parking between illegal parking (crossover, dropped kerbs, double yellow etc) that measure less than the unit specified for 1 space.  Where the width of the road is such that parking on both sides would cause an obstruction. In this instance one side of the road has been excluded from the capacity calculation.</p>	
<b>Parking excluded from stress calculation</b>	<p>Skips or any other non-vehicle occupying a parking space (but noted separately if observed).  Any illegal parking on double yellow lines, crossovers, keep clear lines etc (but noted separately if observed).</p>	
<b>Terminology</b>	<p>"Parking Stress" - Calculation to express the number of parked vehicles as a percentage of available parking for each parking type. Stress can be over 100% if cars are small and/or parked very closely together.  "Parking Capacity Calculation" - Measurement of each length of road between illegal parking (e.g. crossovers, traffic islands, double yellow etc) converted into parking spaces by rounding down to the nearest unit assigned to one parking space and dividing this figure by the unit.  "Lengthwise Parking" - Vehicles parked in a lengthwise orientation with wheels parallel to the kerbside.  "Crosswise Parking" - Vehicles parked in a crosswise orientation (as seen in car parks or wide sections of road)</p>	



**RADIAL**  
UK PARKING BEAT  
SURVEY SPECIALISTS

**SITE PLAN**  
**KINGSTON UPON THAMES**  
**CAMBRIDGE ROAD ESTATE**  
PARKING BEAT STREET INVENTORY MAP



 Unrestricted	 Crossover
 Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	 Too Narrow
 Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	 Build Out
 Single Yellow (No Parking Mon-Sat 7am-7pm)	 Double Yellow
 Private Parking	 7.5 Meters From Junction
 Disabled Private Parking	 Bins
 Private Parking (Garage Doors)	 Keep Clear
 Site Extent	



**PARKING STRESS TABLES - BY RESTRICTION**

Restriction 1					Unrestricted					
Location	Lengthwise Parking (m)	Lengthwise Spaces	Marked/Crosswise Bays	Total Spaces	WEDNESDAY 8 JULY 2020			THURSDAY 9 JULY 2020		
					00:30			00:30		
					Occupied	Spaces	Stress (%)	Occupied	Spaces	Stress (%)
Burritt Road	100	20	0	20	19	1	95%	18	2	90%
Burritt Road (Car Park 4)	15	3	0	3	2	1	67%	3	0	100%
Burritt Road Spur	30	6	4	10	9	1	90%	9	1	90%
Burritt Road (Car Park 5)	75	15	0	15	10	5	67%	11	4	73%
Willingham Way	35	7	5	12	9	3	75%	8	4	67%
Stapleford Close	15	3	2	5	5	0	100%	5	0	100%
Chesterton Terrace	35	7	3	10	7	3	70%	6	4	60%
Eureka Road	10	2	2	4	3	1	75%	4	0	100%
Wimpole Close	30	6	2	8	7	1	88%	8	0	100%
Washington Road	140	28	2	30	21	9	70%	23	7	77%
Washington Road Site Office Spur	25	5	0	5	0	5	0%	0	5	0%
Excelsior Close	50	10	2	12	11	1	92%	10	2	83%
<b>Total</b>	<b>560</b>	<b>112</b>	<b>22</b>	<b>134</b>	<b>103</b>	<b>31</b>	<b>77%</b>	<b>105</b>	<b>29</b>	<b>78%</b>

Restriction 2					Permit Holders Only (N) Mon-Fri 8:30am-6:30pm					
Location	Lengthwise Parking (m)	Lengthwise Spaces	Marked/Crosswise Bays	Total Spaces	WEDNESDAY 8 JULY 2020			THURSDAY 9 JULY 2020		
					00:30			00:30		
					Occupied	Spaces	Stress (%)	Occupied	Spaces	Stress (%)
Willingham Way	65	13	0	13	4	9	31%	4	9	31%
Franklin Close	20	4	0	4	3	1	75%	3	1	75%
Cambridge Grove Road	30	6	0	6	4	2	67%	4	2	67%
<b>Total</b>	<b>115</b>	<b>23</b>	<b>0</b>	<b>23</b>	<b>11</b>	<b>12</b>	<b>48%</b>	<b>11</b>	<b>12</b>	<b>48%</b>

Restriction 3					Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours					
Location	Lengthwise Parking (m)	Lengthwise Spaces	Marked/Crosswise Bays	Total Spaces	WEDNESDAY 8 JULY 2020			THURSDAY 9 JULY 2020		
					00:30			00:30		
					Occupied	Spaces	Stress (%)	Occupied	Spaces	Stress (%)
Willingham Way	25	5	0	5	4	1	80%	4	1	80%
Somerset Road	25	5	0	5	2	3	40%	2	3	40%
<b>Total</b>	<b>50</b>	<b>10</b>	<b>0</b>	<b>10</b>	<b>6</b>	<b>4</b>	<b>60%</b>	<b>6</b>	<b>4</b>	<b>60%</b>

Restriction 4					Single Yellow (No Parking Mon-Sat 7am-7pm)					
Location	Lengthwise Parking (m)	Lengthwise Spaces	Marked/Crosswise Bays	Total Spaces	WEDNESDAY 8 JULY 2020			THURSDAY 9 JULY 2020		
					00:30			00:30		
					Occupied	Spaces	Stress (%)	Occupied	Spaces	Stress (%)
Willingham Way	55	11	0	11	2	9	18%	1	10	9%
Franklin Close	15	3	2	5	0	5	0%	0	5	0%
Cambridge Grove Road	20	4	2	6	1	5	17%	2	4	33%
<b>Total</b>	<b>90</b>	<b>18</b>	<b>4</b>	<b>22</b>	<b>3</b>	<b>19</b>	<b>14%</b>	<b>3</b>	<b>19</b>	<b>14%</b>

Restriction 5					Private Parking					
Location	Lengthwise Parking (m)	Lengthwise Spaces	Marked/Crosswise Bays	Total Spaces	WEDNESDAY 8 JULY 2020			THURSDAY 9 JULY 2020		
					00:30			00:30		
					Occupied	Spaces	Stress (%)	Occupied	Spaces	Stress (%)
Burritt Road	0	0	26	26	26	0	100%	26	0	100%
Burritt Road (Car Park 3)	0	0	19	19	19	0	100%	19	0	100%
Burritt Road (Car Park 4)	0	0	15	15	15	0	100%	15	0	100%
Burritt Road (Car Park 5)	0	0	46	46	43	3	93%	42	4	91%
Willingham Way (Car Park 1)	0	0	14	14	14	0	100%	13	1	93%
Willingham Way	0	0	7	7	7	0	100%	7	0	100%
Willingham Way (Car Park 2)	0	0	8	8	8	0	100%	8	0	100%
Franklin Close	0	0	3	3	2	1	67%	2	1	67%
Stapleford Close	0	0	13	13	13	0	100%	13	0	100%
St Peters Road Spur	0	0	21	21	19	2	90%	17	4	81%
St Peters Road (Car Park 6)	0	0	16	16	16	0	100%	16	0	100%
Chesterton Terrace	0	0	13	13	9	4	69%	8	5	62%
Eureka Road	0	0	14	14	12	2	86%	13	1	93%
Wimpole Close	0	0	6	6	6	0	100%	6	0	100%
Washington Road (Car Park 9)	0	0	20	20	16	4	80%	16	4	80%
Excelsior Close (Car Park 7)	0	0	12	12	12	0	100%	12	0	100%
Excelsior Close (Car Park 8)	0	0	12	12	8	4	67%	8	4	67%
Excelsior Close Spur	20	4	3	7	6	1	86%	7	0	100%
Piper Road (Car Park 10)	0	0	32	32	18	14	56%	16	16	50%
Willingham Way Spur (Car Park 11)	0	0	8	8	6	2	75%	7	1	88%
<b>Total</b>	<b>20</b>	<b>4</b>	<b>300</b>	<b>304</b>	<b>269</b>	<b>35</b>	<b>88%</b>	<b>264</b>	<b>40</b>	<b>87%</b>

Restriction 6					Disabled Private Parking					
Location	Lengthwise Parking (m)	Lengthwise Spaces	Marked/Crosswise Bays	Total Spaces	WEDNESDAY 8 JULY 2020			THURSDAY 9 JULY 2020		
					00:30			00:30		
					Occupied	Spaces	Stress (%)	Occupied	Spaces	Stress (%)
Burritt Road (Car Park 3)	0	0	3	3	3	0	100%	3	0	100%
Burritt Road (Car Park 5)	0	0	1	1	1	0	100%	1	0	100%
Willingham Way	0	0	1	1	1	0	100%	1	0	100%
Washington Road (Car Park 9)	0	0	2	2	2	0	100%	2	0	100%
Willingham Way Spur (Car Park 11)	0	0	1	1	1	0	100%	1	0	100%
<b>Total</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>0</b>	<b>100%</b>	<b>7</b>	<b>0</b>	<b>100%</b>

Restriction 7					Private Parking (Garage Doors)					
Location	Lengthwise Parking (m)	Lengthwise Spaces	Marked/Crosswise Bays	Total Spaces	WEDNESDAY 8 JULY 2020			THURSDAY 9 JULY 2020		
					00:30			00:30		
					Occupied	Spaces	Stress (%)	Occupied	Spaces	Stress (%)
Burritt Road	0	0	66	66	0	66	0%	0	66	0%
Burritt Road (Car Park 5)	0	0	2	2	0	2	0%	0	2	0%
Willingham Way	0	0	28	28	0	28	0%	0	28	0%
St Peters Road Spur	0	0	16	16	0	16	0%	0	16	0%
Eureka Road	0	0	18	18	0	18	0%	0	18	0%
Wimpole Close	0	0	22	22	8	14	36%	9	13	41%
Washington Road	0	0	28	28	6	22	21%	8	20	29%
Excelsior Close	0	0	18	18	3	15	17%	3	15	17%
Excelsior Close Spur	0	0	12	12	0	12	0%	0	12	0%
<b>Total</b>	<b>0</b>	<b>0</b>	<b>210</b>	<b>210</b>	<b>17</b>	<b>193</b>	<b>8%</b>	<b>20</b>	<b>190</b>	<b>10%</b>

**Illegal/Obstructive Parking**

Location	Description	WEDNESDAY 8 JULY 2020	THURSDAY 9 JULY 2020
		00:30	00:30
		Occupied	Occupied
Stapleford Close	Crossover	2	0
Burritt Road (Car Park 5)	On Pavement/Too Narrow	3	2
Burritt Road	Too Narrow	2	2
Burritt Road (Private Garage Doors)	Lengthwise Parking	14	11
Willingham Way (Private Garage Doors)	Lengthwise Parking	8	6
St Peters Road Spur (Private Garage Doors)	Lengthwise Parking	3	3
Eureka Road (Private Garage Doors)	Lengthwise Parking	4	3
Excelsior Close (Private Garage Doors)	Lengthwise Parking	2	0
Excelsior Close Spur (Private Garage Doors)	Lengthwise Parking	2	2
Eureka Road	Keep Clear	1	1
<b>Total</b>		<b>39</b>	<b>30</b>

**PARKING STRESS TABLES - BY PARKING AREA/ROAD**

Location	Lengthwise Parking (m)	Lengthwise Spaces	Marked/Crosswise Bays	Total Spaces	Parking Restriction	WEDNESDAY 8 JULY 2020			THURSDAY 9 JULY 2020		
						00:30			00:30		
						Occupied	Spaces	Stress (%)	Occupied	Spaces	Stress (%)
Burritt Road	100	20	0	20	Unrestricted	19	2	90%	18	2	90%
Burritt Road	0	0	26	26	Private Parking	26	0	100%	26	0	100%
Burritt Road	0	0	66	66	Private Parking (Garage Doors)	0	66	0%	0	66	0%
<b>Total</b>	<b>100</b>	<b>20</b>	<b>92</b>	<b>112</b>		<b>45</b>	<b>68</b>	<b>40%</b>	<b>44</b>	<b>68</b>	<b>39%</b>
Burritt Road (Car Park 3)	0	0	19	19	Private Parking	19	0	100%	19	0	100%
Burritt Road (Car Park 3)	0	0	3	3	Disabled Private Parking	3	0	100%	3	0	100%
<b>Total</b>	<b>0</b>	<b>0</b>	<b>22</b>	<b>22</b>		<b>22</b>	<b>0</b>	<b>100%</b>	<b>22</b>	<b>0</b>	<b>100%</b>
Burritt Road (Car Park 4)	15	3	0	3	Unrestricted	2	1	67%	3	0	100%
Burritt Road (Car Park 4)	0	0	15	15	Private Parking	15	1	93%	15	0	100%
<b>Total</b>	<b>15</b>	<b>3</b>	<b>15</b>	<b>18</b>		<b>17</b>	<b>2</b>	<b>94%</b>	<b>18</b>	<b>0</b>	<b>100%</b>
Burritt Road (Car Park 5)	75	15	0	15	Unrestricted	10	7	53%	11	5	67%
Burritt Road (Car Park 5)	0	0	46	46	Private Parking	43	2	96%	42	1	98%
Burritt Road (Car Park 5)	0	0	1	1	Disabled Private Parking	1	0	100%	1	0	100%
Burritt Road (Car Park 5)	0	0	2	2	Private Parking (Garage Doors)	0	2	0%	0	2	0%
<b>Total</b>	<b>75</b>	<b>15</b>	<b>49</b>	<b>64</b>		<b>54</b>	<b>11</b>	<b>84%</b>	<b>54</b>	<b>8</b>	<b>84%</b>
Burritt Road Spur	30	6	4	10	Unrestricted	9	2	80%	9	2	80%
<b>Total</b>	<b>30</b>	<b>6</b>	<b>4</b>	<b>10</b>		<b>9</b>	<b>2</b>	<b>90%</b>	<b>9</b>	<b>2</b>	<b>90%</b>
Cambridge Grove Road	30	6	0	6	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	4	3	50%	4	3	50%
Cambridge Grove Road	20	4	2	6	Single Yellow (No Parking Mon-Sat 7am-7pm)	1	5	17%	2	4	33%
<b>Total</b>	<b>50</b>	<b>10</b>	<b>2</b>	<b>12</b>		<b>5</b>	<b>8</b>	<b>42%</b>	<b>6</b>	<b>7</b>	<b>50%</b>
Chesterton Terrace	35	7	3	10	Unrestricted	7	4	60%	6	5	50%
Chesterton Terrace	0	0	13	13	Private Parking	9	6	54%	8	5	62%
<b>Total</b>	<b>35</b>	<b>7</b>	<b>16</b>	<b>23</b>		<b>16</b>	<b>10</b>	<b>70%</b>	<b>14</b>	<b>10</b>	<b>61%</b>
Eureka Road	10	2	2	4	Unrestricted	3	1	75%	4	0	100%
Eureka Road	0	0	14	14	Private Parking	12	1	93%	13	1	93%
Eureka Road	0	0	18	18	Private Parking (Garage Doors)	0	18	0%	0	18	0%
<b>Total</b>	<b>10</b>	<b>2</b>	<b>34</b>	<b>36</b>		<b>15</b>	<b>20</b>	<b>42%</b>	<b>17</b>	<b>19</b>	<b>47%</b>
Excelsior Close	50	10	2	12	Unrestricted	11	1	92%	10	2	83%
Excelsior Close	0	0	18	18	Private Parking (Garage Doors)	3	16	11%	3	16	11%
<b>Total</b>	<b>50</b>	<b>10</b>	<b>20</b>	<b>30</b>		<b>14</b>	<b>17</b>	<b>47%</b>	<b>13</b>	<b>18</b>	<b>43%</b>
Excelsior Close (Car Park 7)	0	0	12	12	Private Parking	12	1	92%	12	1	92%
<b>Total</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>12</b>		<b>12</b>	<b>1</b>	<b>100%</b>	<b>12</b>	<b>1</b>	<b>100%</b>
Excelsior Close (Car Park 8)	0	0	12	12	Private Parking	8	4	67%	8	4	67%
<b>Total</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>12</b>		<b>8</b>	<b>4</b>	<b>67%</b>	<b>8</b>	<b>4</b>	<b>67%</b>
Excelsior Close Spur	20	4	3	7	Private Parking	6	1	86%	7	1	86%
Excelsior Close Spur	0	0	12	12	Private Parking (Garage Doors)	0	12	0%	0	12	0%
<b>Total</b>	<b>20</b>	<b>4</b>	<b>15</b>	<b>19</b>		<b>6</b>	<b>13</b>	<b>32%</b>	<b>7</b>	<b>13</b>	<b>37%</b>
Franklin Close	20	4	0	4	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	3	1	75%	3	1	75%
Franklin Close	15	3	2	5	Single Yellow (No Parking Mon-Sat 7am-7pm)	0	5	0%	0	5	0%
Franklin Close	0	0	3	3	Private Parking	2	1	67%	2	1	67%
<b>Total</b>	<b>35</b>	<b>7</b>	<b>5</b>	<b>12</b>		<b>5</b>	<b>7</b>	<b>42%</b>	<b>5</b>	<b>7</b>	<b>42%</b>
Piper Road (Car Park 10)	0	0	32	32	Private Parking	18	14	56%	16	16	50%
<b>Total</b>	<b>0</b>	<b>0</b>	<b>32</b>	<b>32</b>		<b>18</b>	<b>14</b>	<b>56%</b>	<b>16</b>	<b>16</b>	<b>50%</b>
Somerset Road	25	5	0	5	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	2	3	40%	2	3	40%
<b>Total</b>	<b>25</b>	<b>5</b>	<b>0</b>	<b>5</b>		<b>2</b>	<b>3</b>	<b>40%</b>	<b>2</b>	<b>3</b>	<b>40%</b>
St Peters Road (Car Park 6)	0	0	16	16	Private Parking	16	0	100%	16	0	100%
<b>Total</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>16</b>		<b>16</b>	<b>0</b>	<b>100%</b>	<b>16</b>	<b>0</b>	<b>100%</b>
St Peters Road Spur	0	0	21	21	Private Parking	19	3	86%	17	5	76%
St Peters Road Spur	0	0	16	16	Private Parking (Garage Doors)	0	15	0%	0	13	13%
<b>Total</b>	<b>0</b>	<b>0</b>	<b>37</b>	<b>37</b>		<b>19</b>	<b>18</b>	<b>51%</b>	<b>17</b>	<b>18</b>	<b>46%</b>
Stapleford Close	15	3	2	5	Unrestricted	5	0	100%	5	0	100%
Stapleford Close	0	0	13	13	Private Parking	13	0	100%	13	0	100%
<b>Total</b>	<b>15</b>	<b>3</b>	<b>15</b>	<b>18</b>		<b>18</b>	<b>0</b>	<b>100%</b>	<b>18</b>	<b>0</b>	<b>100%</b>
Washington Road	140	28	2	30	Unrestricted	21	8	73%	23	6	80%
Washington Road	0	0	28	28	Private Parking (Garage Doors)	6	21	25%	8	20	29%
<b>Total</b>	<b>140</b>	<b>28</b>	<b>30</b>	<b>58</b>		<b>27</b>	<b>29</b>	<b>47%</b>	<b>31</b>	<b>26</b>	<b>53%</b>
Washington Road (Car Park 9)	0	0	20	20	Private Parking	16	6	70%	16	5	75%
Washington Road (Car Park 9)	0	0	2	2	Disabled Private Parking	2	0	100%	2	0	100%
<b>Total</b>	<b>0</b>	<b>0</b>	<b>22</b>	<b>22</b>		<b>18</b>	<b>6</b>	<b>82%</b>	<b>18</b>	<b>5</b>	<b>82%</b>
Washington Road Site Office Spur	25	5	0	5	Unrestricted	0	5	0%	0	5	0%
<b>Total</b>	<b>25</b>	<b>5</b>	<b>0</b>	<b>5</b>		<b>0</b>	<b>5</b>	<b>0%</b>	<b>0</b>	<b>5</b>	<b>0%</b>
Willingham Way	35	7	5	12	Unrestricted	9	3	75%	8	4	67%
Willingham Way	65	13	0	13	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	4	10	23%	4	8	38%
Willingham Way	25	5	0	5	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	4	1	80%	4	1	80%
Willingham Way	55	11	0	11	Single Yellow (No Parking Mon-Sat 7am-7pm)	2	10	9%	1	11	0%
Willingham Way	0	0	7	7	Private Parking	7	0	100%	7	0	100%
Willingham Way	0	0	1	1	Disabled Private Parking	1	0	100%	1	0	100%
Willingham Way	0	0	28	28	Private Parking (Garage Doors)	0	28	0%	0	28	0%
<b>Total</b>	<b>180</b>	<b>36</b>	<b>41</b>	<b>77</b>		<b>27</b>	<b>52</b>	<b>35%</b>	<b>25</b>	<b>52</b>	<b>32%</b>
Willingham Way (Car Park 1)	0	0	14	14	Private Parking	14	1	93%	13	2	86%
<b>Total</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>		<b>14</b>	<b>1</b>	<b>100%</b>	<b>13</b>	<b>2</b>	<b>93%</b>
Willingham Way (Car Park 2)	0	0	8	8	Private Parking	8	0	100%	8	0	100%
<b>Total</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>8</b>		<b>8</b>	<b>0</b>	<b>100%</b>	<b>8</b>	<b>0</b>	<b>100%</b>
Willingham Way Spur (Car Park 11)	0	0	8	8	Private Parking	6	2	75%	7	2	100%
Willingham Way Spur (Car Park 11)	0	0	1	1	Disabled Private Parking	1	0	100%	1	0	100%
<b>Total</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>9</b>		<b>7</b>	<b>2</b>	<b>78%</b>	<b>7</b>	<b>2</b>	<b>78%</b>
Wimpole Close	30	6	2	8	Unrestricted	7	1	88%	8	0	100%
Wimpole Close	0	0	6	6	Private Parking	6	0	100%	6	0	100%
Wimpole Close	0	0	22	22	Private Parking (Garage Doors)	8	13	41%	9	14	36%
<b>Total</b>	<b>30</b>	<b>6</b>	<b>30</b>	<b>36</b>		<b>21</b>	<b>14</b>	<b>58%</b>	<b>23</b>	<b>14</b>	<b>64%</b>

## PARKING CAPACITY MEASUREMENTS

A working table showing kerbside measurements for each parking type.

Location	Side of Road & Measuring Orientation	Parking Type	Section Length (m)	Crosswise Spaces or Lengthwise Marked Bays	Number of Crosswise Spaces or Marked Bays	Unit Round Down (If Lengthwise & Unmarked)	Total Spaces
Burritt Road	S E-W	Double Yellow	8.4			5	1
Burritt Road	S E-W	Junction	7.7			5	1
Burritt Road	S E-W	Double Yellow	36.4			35	7
Burritt Road	S E-W	Private Parking (Garage Doors)	27.3	CW	10		10
Burritt Road	S E-W	Crossover	4.2			0	0
Burritt Road	S E-W	Private Parking (Garage Doors)	70	CW	26		26
Burritt Road	S E-W	Crossover	5.6			5	1
Burritt Road	S E-W	Too Narrow	9.8			5	1
Burritt Road	S E-W	Private Parking (Garage Doors)	45.5	CW	16		16
Burritt Road	S E-W	Crossover	7.7			5	1
Burritt Road	S E-W	Crossover	2.1			0	0
Burritt Road	S E-W	Private Parking (Garage Doors)	38.5	CW	14		14
Burritt Road	N W-E	Junction	11.2			10	2
Burritt Road	N W-E	Unrestricted	36.4			35	7
Burritt Road	N W-E	Junction	10.5			10	2
Burritt Road	N W-E	Unrestricted	45.5			45	9
Burritt Road	N W-E	Private Parking	14.7	CW	5		5
Burritt Road	N W-E	Build Out	2.1			0	0
Burritt Road	N W-E	Private Parking	12.6	CW	5		5
Burritt Road	N W-E	Build Out	2.1			0	0
Burritt Road	N W-E	Private Parking	15.4	CW	6		6
Burritt Road	N W-E	Unrestricted	5.6			5	1
Burritt Road	N W-E	Junction	12.6			10	2
Burritt Road	N W-E	Unrestricted	11.2			10	2
Burritt Road	N W-E	Private Parking	27.3	CW	10		10
Burritt Road	N W-E	Unrestricted	9.8			5	1
Burritt Road	N W-E	Double Yellow	35			35	7
Burritt Road (Car Park 3)	ALL	Private Parking	N/A	CW	5		5
Burritt Road (Car Park 3)	ALL	Disabled Private Parking	N/A	CW	3		3
Burritt Road (Car Park 3)	ALL	Private Parking	N/A	CW	4		4
Burritt Road (Car Park 3)	ALL	Private Parking	N/A	CW	10		10
Burritt Road (Car Park 4)	W S-N	7.5 Meters From Junction	5.6			5	1
Burritt Road (Car Park 4)	W S-N	Private Parking	29.4	CW	10		10
Burritt Road (Car Park 4)	E N-S	Private Parking	11.9	CW	5		5
Burritt Road (Car Park 4)	E N-S	Unrestricted	16.8			15	3
Burritt Road (Car Park 4)	E N-S	7.5 Meters From Junction	7.5			5	1
Burritt Road Spur	N W-E	7.5 Meters From Junction	5.6			5	1
Burritt Road Spur	N W-E	Junction	9.1			5	1
Burritt Road Spur	N W-E	Unrestricted	26.6			25	5
Burritt Road Spur	N W-E	Unrestricted	7	CW	2		2
Burritt Road Spur	End N-S	Unrestricted	4.9	CW	2		2
Burritt Road Spur	S E-W	Unrestricted	4.2			0	0
Burritt Road Spur	S E-W	Crossover	5.6			5	1
Burritt Road Spur	S E-W	Too Narrow	5.6			5	1
Burritt Road Spur	S E-W	Crossover	6.3			5	1
Burritt Road Spur	S E-W	Too Narrow	6.3			5	1
Burritt Road Spur	S E-W	Crossover	6.3			5	1
Burritt Road Spur	S E-W	Unrestricted	5.6			5	1
Burritt Road Spur	S E-W	Crossover	5.6			5	1
Burritt Road Spur	S E-W	7.5 Meters From Junction	7.5			5	1
Burritt Road (Car Park 5)	Outer Clockwise	Build Out	6.3			5	1
Burritt Road (Car Park 5)	Outer Clockwise	Private Parking	14.7	CW	6		6
Burritt Road (Car Park 5)	Outer Clockwise	Disabled Private Parking	3.5	CW	1		1
Burritt Road (Car Park 5)	Outer Clockwise	Private Parking	15.4	CW	6		6
Burritt Road (Car Park 5)	Outer Clockwise	Unrestricted	22.4			20	4
Burritt Road (Car Park 5)	Outer Clockwise	Private Parking (Garage Doors)	6.3	CW	2		2
Burritt Road (Car Park 5)	Outer Clockwise	Unrestricted	58.8			55	11
Burritt Road (Car Park 5)	Outer Clockwise	Bins	7			5	1
Burritt Road (Car Park 5)	Inner Clockwise	Private Parking	39.9	CW	17		17
Burritt Road (Car Park 5)	Inner Clockwise	Too Narrow	11.2			10	2
Burritt Road (Car Park 5)	Inner Clockwise	Private Parking	39.9	CW	17		17
Burritt Road (Car Park 5)	Inner Clockwise	Too Narrow	14			10	2
Willingham Way (Car Park 1)	ALL	Private Parking	N/A	CW	8		8
Willingham Way (Car Park 1)	ALL	Private Parking	N/A	CW	3		3
Willingham Way (Car Park 1)	ALL	Private Parking	N/A	CW	3		3
Willingham Way	W S-N	7.5 Meters From Junction	7.5			5	1
Willingham Way	W S-N	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	15.4			15	3
Willingham Way	W S-N	Single Yellow (No Parking Mon-Sat 7am-7pm)	2.8			0	0
Willingham Way	W S-N	Junction	9.1			5	1
Willingham Way	W S-N	Single Yellow (No Parking Mon-Sat 7am-7pm)	4.2			0	0
Willingham Way	W S-N	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	22.4			20	4
Willingham Way	W S-N	Single Yellow (No Parking Mon-Sat 7am-7pm)	7.7			5	1
Willingham Way	W S-N	Junction	17.5			15	3

Willingham Way	W S-N	Crossover	12.6			10	2
Willingham Way	W S-N	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	8.4			5	1
Willingham Way	W S-N	Crossover	17.5			15	3
Willingham Way	W S-N	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	21.7			20	4
Willingham Way	W S-N	Junction	9.8			5	1
Willingham Way	W S-N	Crossover	6.3			5	1
Willingham Way	W S-N	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
Willingham Way	W S-N	Crossover	23.8			20	4
Willingham Way	W S-N	Single Yellow (No Parking Mon-Sat 7am-7pm)	16.8			15	3
Willingham Way	W S-N	Private Parking	9.8	CW	4		4
Willingham Way	W S-N	Disabled Private Parking	2.8	CW	1		1
Willingham Way	W S-N	Private Parking	7.7	CW	3		3
Willingham Way	W S-N	Unrestricted	21			20	4
Willingham Way	W S-N	Access Junction	9.8			5	1
Willingham Way	W S-N	Unrestricted	16.1			15	3
Willingham Way	W S-N	Unrestricted	8.4	CW	3		3
Willingham Way	End W-E	Unrestricted	7	CW	2		2
Willingham Way	E N-S	Crossover	4.9			0	0
Willingham Way	E N-S	Private Parking (Garage Doors)	77.7	CW	28		28
Willingham Way	E N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	3.5			0	0
Willingham Way	E N-S	Double Yellow	31.5			30	6
Willingham Way	E N-S	Crossover	5.6			5	1
Willingham Way	E N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	8.4			5	1
Willingham Way	E N-S	Crossover	33.6			30	6
Willingham Way	E N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
Willingham Way	E N-S	Crossover	11.2			10	2
Willingham Way	E N-S	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	30.8			30	6
Willingham Way	E N-S	Crossover	11.2			10	2
Willingham Way	E N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
Willingham Way	E N-S	Crossover	5.6			5	1
Willingham Way	E N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	6.3			5	1
Willingham Way	E N-S	Crossover	3.5			0	0
Willingham Way	E N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
Willingham Way	E N-S	Crossover	4.9			0	0
Willingham Way	E N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
Willingham Way	E N-S	Crossover	7			5	1
Willingham Way	E N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	4.9			0	0
Willingham Way	E N-S	7.5 Meters From Junction	7.5			5	1
Willingham Way Spur	ALL	Double Yellow	N/A			N/A	N/A
Willingham Way (Car Park 2)	E S-N	Build Out	2.8			0	0
Willingham Way (Car Park 2)	E S-N	Private Parking	10.5	CW	4		4
Willingham Way (Car Park 2)	E S-N	Build Out	2.8			0	0
Willingham Way (Car Park 2)	W N-S	Build Out	2.8			0	0
Willingham Way (Car Park 2)	W N-S	Private Parking	10.5	CW	4		4
Willingham Way (Car Park 2)	W N-S	Build Out	2.8			0	0
Franklin Close	N E-W	7.5 Meters From Junction	7.5			5	1
Franklin Close	N E-W	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	20.3			20	4
Franklin Close	N E-W	Private Parking	9.8	CW	3		3
Franklin Close	N E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
Franklin Close	N E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	7.7	CW	2		2
Franklin Close	N E-W	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
Franklin Close	End N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	4.9			0	0
Franklin Close	S W-E	Crossover	15.4			15	3
Franklin Close	S W-E	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
Franklin Close	S W-E	Crossover	23.8			20	4
Franklin Close	S W-E	7.5 Meters From Junction	7.5			5	1
Cambridge Grove Road	E S-N	Single Yellow (No Parking Mon-Sat 7am-7pm)	4.2			0	0
Cambridge Grove Road	E S-N	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	14			10	2
Cambridge Grove Road	E S-N	Single Yellow (No Parking Mon-Sat 7am-7pm)	4.9			0	0
Cambridge Grove Road	E S-N	Single Yellow (No Parking Mon-Sat 7am-7pm)	7.7	CW	2		2
Cambridge Grove Road	E S-N	Single Yellow (No Parking Mon-Sat 7am-7pm)	4.2			0	0
Cambridge Grove Road	E S-N	Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	21			20	4
Cambridge Grove Road	W N-S	Crossover	26.6			25	5
Cambridge Grove Road	W N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
Cambridge Grove Road	W N-S	Crossover	7			5	1
Cambridge Grove Road	W N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	5.6			5	1
Cambridge Grove Road	W N-S	Crossover	5.6			5	1
Cambridge Grove Road	W N-S	Single Yellow (No Parking Mon-Sat 7am-7pm)	11.2			10	2
Stapleford Close	E S-N	7.5 Meters From Junction	5.6			5	1
Stapleford Close	E S-N	Private Parking	36.4	CW	13		13
Stapleford Close	E S-N	Too Narrow	4.9			0	0
Stapleford Close	E S-N	Unrestricted	7	CW	2		2
Stapleford Close	E S-N	Double Yellow	6.3			5	1
Stapleford Close	End E-W	Double Yellow	5.6			5	1
Stapleford Close	W N-S	Double Yellow	4.2			0	0
Stapleford Close	W N-S	Unrestricted	4.2			0	0
Stapleford Close	W N-S	Crossover	5.6			5	1
Stapleford Close	W N-S	Unrestricted	5.6			5	1
Stapleford Close	W N-S	Crossover	5.6			5	1

Stapleford Close	WN-S	Unrestricted	5.6			5	1
Stapleford Close	WN-S	Crossover	7			5	1
Stapleford Close	WN-S	Unrestricted	5.6			5	1
Stapleford Close	WN-S	Crossover	7			5	1
Stapleford Close	WN-S	7.5 Meters From Junction	7.5			5	1
St Peters Road Spur	N E-W	Double Yellow	3.5			0	0
St Peters Road Spur	N E-W	Private Parking (Garage Doors)	23.1	CW	8		8
St Peters Road Spur	N E-W	Bins	4.9			0	0
St Peters Road Spur	N E-W	Private Parking (Garage Doors)	23.1	CW	8		8
St Peters Road Spur	N E-W	Crossover	6.3			5	1
St Peters Road Spur	S W-E	Private Parking	55.3	CW	21		21
St Peters Road Spur	S W-E	Double Yellow	3.5			0	0
St Peters Road (Car Park 6)	ALL	Private Parking	N/A	CW	12		12
St Peters Road (Car Park 6)	ALL	Private Parking	N/A	CW	4		4
Chesterton Terrace	S W-E	Double Yellow	10.5			10	2
Chesterton Terrace	S W-E	Unrestricted	5.6			5	1
Chesterton Terrace	S W-E	Crossover	7			5	1
Chesterton Terrace	S W-E	Unrestricted	5.6			5	1
Chesterton Terrace	S W-E	Crossover	6.3			5	1
Chesterton Terrace	S W-E	Unrestricted	5.6			5	1
Chesterton Terrace	S W-E	Crossover	7			5	1
Chesterton Terrace	S W-E	Unrestricted	5.6			5	1
Chesterton Terrace	S W-E	Crossover	18.2			15	3
Chesterton Terrace	S W-E	Unrestricted	5.6			5	1
Chesterton Terrace	S W-E	Crossover	3.5			0	0
Chesterton Terrace	End S-N	Unrestricted	3.5			0	0
Chesterton Terrace	N E-W	Build Out	4.2			0	0
Chesterton Terrace	N E-W	Unrestricted	9.1	CW	3		3
Chesterton Terrace	N E-W	Unrestricted	11.9			10	2
Chesterton Terrace	N E-W	Private Parking	35	CW	13		13
Chesterton Terrace	N E-W	Double Yellow	17.5			15	3
Eureka Road	S W-E	Double Yellow	11.2			10	2
Eureka Road	S W-E	Crossover	4.9			0	0
Eureka Road	S W-E	Private Parking (Garage Doors)	51.1	CW	18		18
Eureka Road	S W-E	Crossover	9.8			5	1
Eureka Road	S W-E	Bins	4.2			0	0
Eureka Road	End S-N	Keep Clear	5.6			5	1
Eureka Road	N E-W	Unrestricted	3.5			0	0
Eureka Road	N E-W	Unrestricted	8.4	CW	2		2
Eureka Road	N E-W	Unrestricted	4.9			0	0
Eureka Road	N E-W	Bins	4.2			0	0
Eureka Road	N E-W	Private Parking	36.4	CW	14		14
Eureka Road	N E-W	Unrestricted	11.9			10	2
Eureka Road	N E-W	Double Yellow	11.2			10	2
Wimpole Close	S E-W	Double Yellow	15.4			15	3
Wimpole Close	S E-W	Private Parking (Garage Doors)	35	CW	12		12
Wimpole Close	S E-W	Build Out	4.2			0	0
Wimpole Close	S E-W	Private Parking (Garage Doors)	30.1	CW	10		10
Wimpole Close	End S-N	Unrestricted	7	CW	2		2
Wimpole Close	N W-E	Access Junction	10.5			10	2
Wimpole Close	N W-E	Double Yellow	5.6			5	1
Wimpole Close	N W-E	Unrestricted	30.8			30	6
Wimpole Close	N W-E	Double Yellow	2.8			0	0
Wimpole Close	N W-E	Junction	9.8			5	1
Wimpole Close	N W-E	Double Yellow	5.6			5	1
Wimpole Close	N W-E	Private Parking	15.4	CW	6		6
Wimpole Close	N W-E	Double Yellow	11.2			10	2
Washington Road	WS-N	Double Yellow	2.8			0	0
Washington Road	WS-N	Junction	9.1			5	1
Washington Road	WS-N	Double Yellow	12.6			10	2
Washington Road	WS-N	Junction	7.7			5	1
Washington Road	WS-N	Double Yellow	8.4			5	1
Washington Road	WS-N	Junction	9.1			5	1
Washington Road	WS-N	Unrestricted	90.3			90	18
Washington Road	WS-N	Junction	18.9			15	3
Washington Road	WS-N	Unrestricted	33.6			30	6
Washington Road	WS-N	Unrestricted	7.7	CW	2		2
Washington Road	WS-N	Double Yellow	7			5	1
Washington Road	End W-E	Double Yellow	5.6			5	1
Washington Road	E N-S	Private Parking (Garage Doors)	32.9	CW	12		12
Washington Road	E N-S	Crossover	3.5			0	0
Washington Road	E N-S	Unrestricted	6.3			5	1
Washington Road	E N-S	Private Parking (Garage Doors)	46.2	CW	16		16
Washington Road	E N-S	Junction	11.2			10	2
Washington Road	E N-S	Double Yellow	2.1			0	0
Washington Road	E N-S	Too Narrow	14			10	2
Washington Road	E N-S	Double Yellow	2.1			0	0
Washington Road	E N-S	Junction	17.5			15	3
Washington Road	E N-S	Too Narrow	23.1			20	4

Washington Road	E N-S	Crossover	9.8			5	1
Washington Road	E N-S	Unrestricted	7.7			5	1
Washington Road	E N-S	Crossover	11.9			10	2
Washington Road	E N-S	Unrestricted	5.6			5	1
Washington Road	E N-S	Crossover	5.6			5	1
Washington Road	E N-S	Unrestricted	5.6			5	1
Washington Road (Car Park 9)	ALL	Private Parking	N/A	CW	10		10
Washington Road (Car Park 9)	ALL	Disabled Private Parking	N/A	CW	2		2
Washington Road (Car Park 9)	ALL	Private Parking	N/A	CW	9		9
Washington Road (Car Park 9)	ALL	Private Parking	N/A	CW	1		1
Washington Road Site Office Spur	S E-W	Double Yellow	5.6			5	1
Washington Road Site Office Spur	S E-W	Unrestricted	28			25	5
Washington Road Site Office Spur	N W-E	Too Narrow	24.5			20	4
Washington Road Site Office Spur	N W-E	Double Yellow	10.5			10	2
Somerset Road	N W-E	Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	25.2			25	5
Somerset Road	N W-E	Double Yellow	7			5	1
Somerset Road	S W-E	Double Yellow	32.2			30	6
Excelsior Close	S E-W	Double Yellow	8.4			5	1
Excelsior Close	S E-W	Too Narrow	17.5			15	3
Excelsior Close	S E-W	Access Junction	7.7			5	1
Excelsior Close	S E-W	Too Narrow	9.8			5	1
Excelsior Close	S E-W	Private Parking (Garage Doors)	51.1	CW	18		18
Excelsior Close	S E-W	Crossover	7			5	1
Excelsior Close	End S-N	Unrestricted	7	CW	2		2
Excelsior Close	N W-E	Junction	9.8			5	1
Excelsior Close	N W-E	Unrestricted	8.4			5	1
Excelsior Close	N W-E	Junction	9.8			5	1
Excelsior Close	N W-E	Unrestricted	14.7			10	2
Excelsior Close	N W-E	Crossover	4.2			0	0
Excelsior Close	N W-E	Unrestricted	35.7			35	7
Excelsior Close	N W-E	Double Yellow	9.8			5	1
Excelsior Close (Car Park 7)	N W-E	Build Out	4.9			0	0
Excelsior Close (Car Park 7)	N W-E	Private Parking	17.5	CW	6		6
Excelsior Close (Car Park 7)	S E-W	Private Parking	17.5	CW	6		6
Excelsior Close (Car Park 7)	S E-W	Build Out	4.9			0	0
Excelsior Close (Car Park 8)	N W-E	Build Out	4.9			0	0
Excelsior Close (Car Park 8)	N W-E	Private Parking	17.5	CW	6		6
Excelsior Close (Car Park 8)	S E-W	Private Parking	17.5	CW	6		6
Excelsior Close (Car Park 8)	S E-W	Build Out	4.9			0	0
Excelsior Close Spur	S E-W	Private Parking (Garage Doors)	23.1	CW	8		8
Excelsior Close Spur	S E-W	Crossover	5.6			5	1
Excelsior Close Spur	S E-W	Private Parking (Garage Doors)	11.9	CW	4		4
Excelsior Close Spur	N W-E	Private Parking	7	CW	3		3
Excelsior Close Spur	N W-E	Private Parking	11.2			10	2
Excelsior Close Spur	N W-E	Bins	2.8			0	0
Excelsior Close Spur	N W-E	Private Parking	12.6			10	2
Piper Road (Car Park 10)	ALL	Private Parking	N/A	CW	11		11
Piper Road (Car Park 10)	ALL	Private Parking	N/A	CW	11		11
Piper Road (Car Park 10)	ALL	Private Parking	N/A	CW	10		10
Willingham Way Spur (Car Park 11)	ALL	Disabled Private Parking	N/A	CW	1		1
Willingham Way Spur (Car Park 11)	ALL	Private Parking	N/A	CW	7		7
Willingham Way Spur (Car Park 11)	ALL	Private Parking	N/A	CW	1		1



**RADIAL**

UK PARKING BEAT  
SURVEY SPECIALISTS

**CAMBRIDGE ESTATE  
KINGSTON-UPON-THAMES  
SITE AREA 2**

**LOCATION OF PARKED VEHICLES**

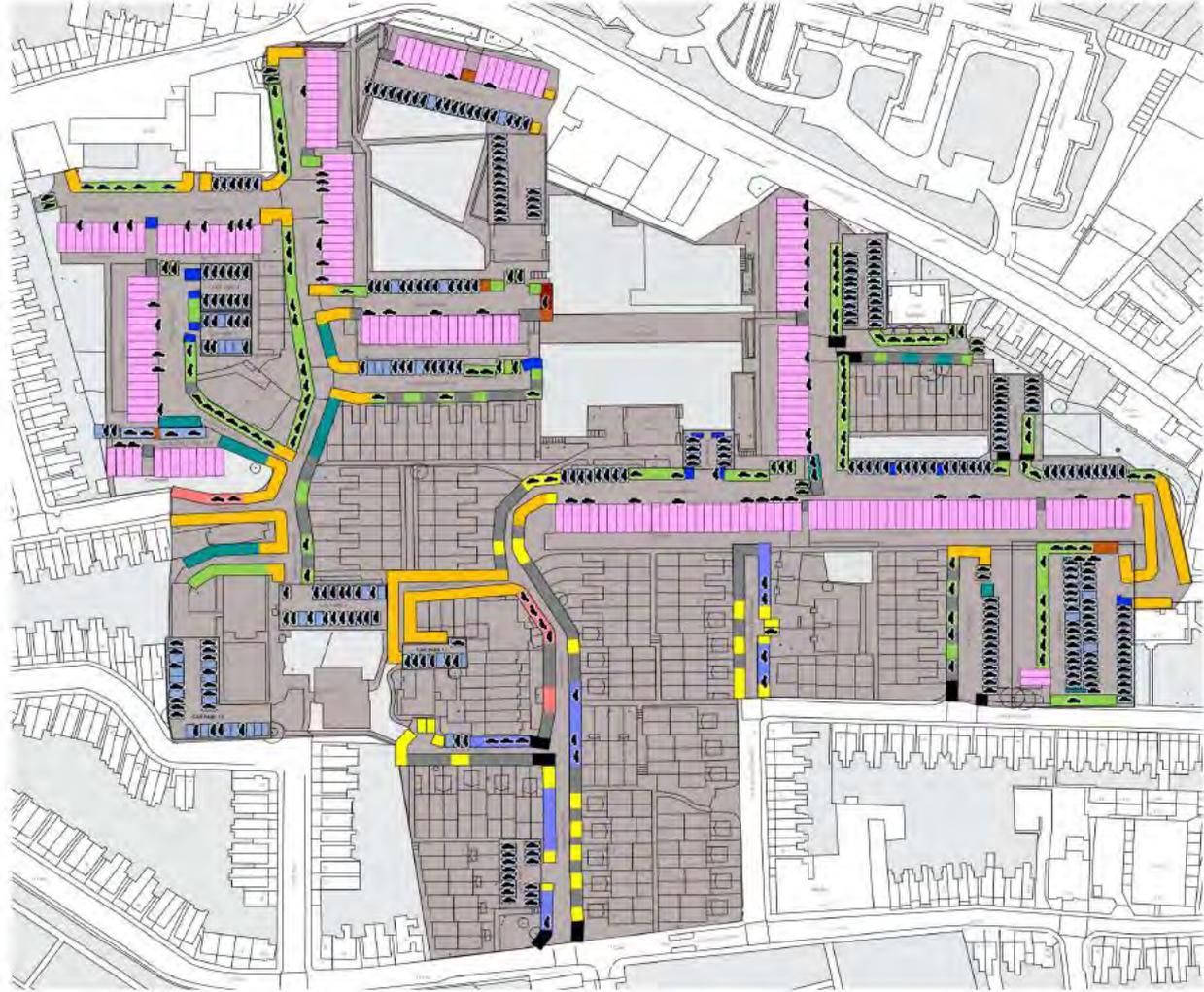




**RADIAL**  
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SURVEY SPECIALISTS

**SITE PLAN**  
**KINGSTON UPON THAMES**  
**CAMBRIDGE ROAD ESTATE**  
PARKING BEAT STREET INVENTORY MAP

WEDNESDAY 8 JULY 2020 - 00:30



Unrestricted	Crossover
Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	Too Narrow
Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	Build Out
Single Yellow (No Parking Mon-Sat 7am-7pm)	Double Yellow
Private Parking	7.5 Meters From Junction
Disabled Private Parking	Bins
Private Parking (Garage Doors)	Keep Clear
Site Extent	Parked Vehicle

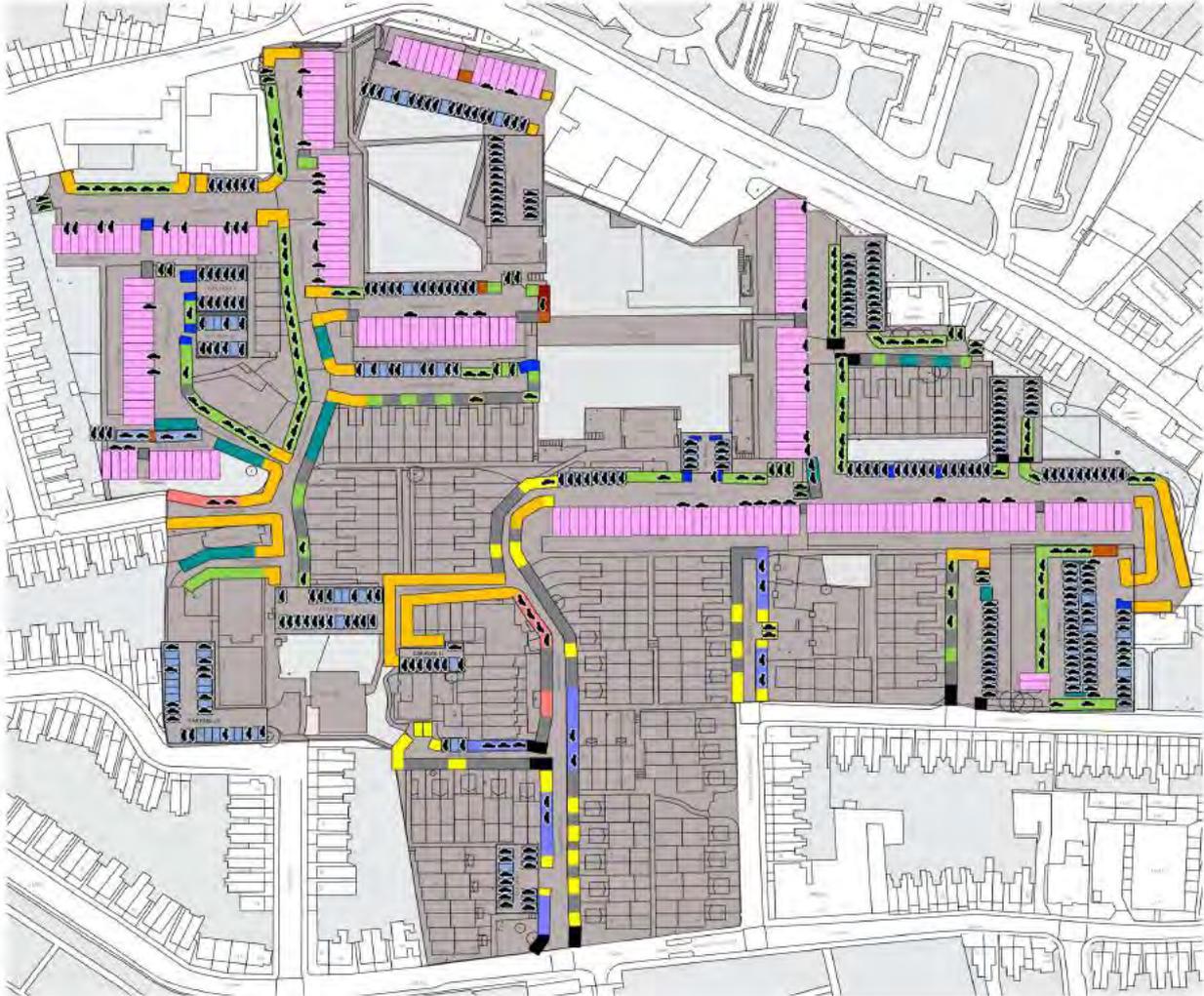




**RADIAL**  
UK PARKING BEAT  
SURVEY SPECIALISTS

**SITE PLAN**  
**KINGSTON UPON THAMES**  
**CAMBRIDGE ROAD ESTATE**  
PARKING BEAT STREET INVENTORY MAP

THURSDAY 9 JULY 2020 - 00:30



Unrestricted	Crossover
Permit Holders Only (N) Mon-Fri 8:30am-6:30pm	Too Narrow
Parking Mon-Fri 8:30am-6:30pm Permit Holders (N) Or 4 Hours No Return Within 2 Hours	Build Out
Single Yellow (No Parking Mon-Sat 7am-7pm)	Double Yellow
Private Parking	7.5 Meters From Junction
Disabled Private Parking	Bins
Private Parking (Garage Doors)	Keep Clear
Site Extent	Parked Vehicle



## **APPENDIX F – PEDESTRIAN LEVEL OF COMFORT AND HEALTHY STREETS TECH NOTE**

# Cambridge Road Estate

## Pedestrian Comfort and Healthy Streets

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# Introduction

## Pedestrian Comfort

This document provides an overview of the pedestrian comfort levels that are forecast for the Cambridge Road Estate site after development completion.

The assessment has used the TFL comfort guidance and spreadsheet to determine the 'level of comfort' at specific footway locations based on forecast pedestrian flows and proposed environmental characteristics of pedestrian space(s).

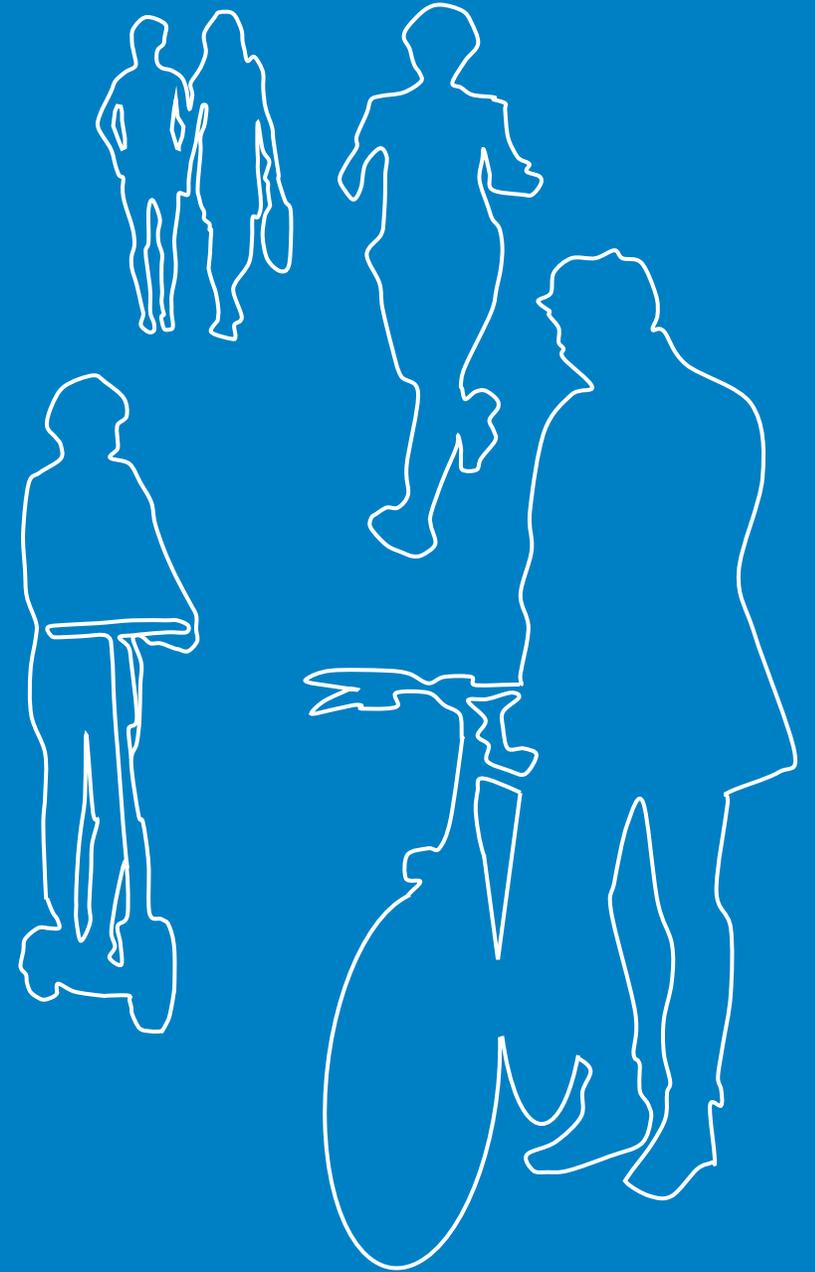
## Healthy Streets

In addition to the pedestrian comfort analysis, three street across the site have been assessed against the TFL Healthy Streets designers check; the results of which are summarised within this presentation.

The 10 evidence-based indicators within Healthy Streets are, according to Tfl guidance, essential for making streets work well for all people and backed by scientific evidence that show they improve health, reduce inequality and encourage people to walk and cycle.



# Cambridge Road Estate – Pedestrian Comfort Assessment



# Pedestrian Level of Comfort

## Pedestrian Comfort

The Pedestrian Comfort Guidance for London (2019) published by TfL is intended to assist in designing footway and crossings that are suitable for their environment and the number and type of users within that environment.

It is used throughout the feasibility and design stages of development in identifying whether there are any potential issues.

## Methodology

Pedestrian Comfort Level (PCL) is measured in pedestrians per metre of clear footway width per minute. This is calculated from data and forecasts of pedestrian activity alongside design characteristics of the street environment.

The assessment does not look at the quality of the footway or associated issues such as maintenance and rubbish that may affect the use of an area.

A detailed design was not available during the assessment, so it has been carried out with the best available information during the planning/design process.

## Data

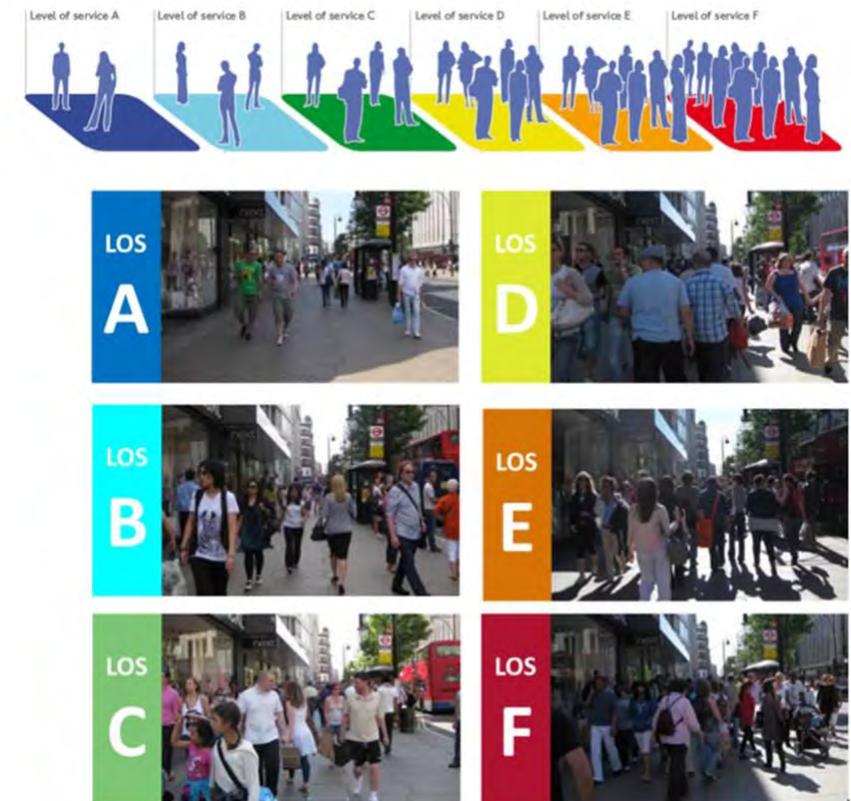
TRICS data has been used to generate a forecast of the number of pedestrian trips associated with the development alongside assumptions surrounding their distribution, origin and destination.

The worst case has been used in the pedestrian comfort assessment, using the total number of pedestrian trips during the AM peak to assess the comfort of specific footway locations. In the analysis undertaken and when referring to pedestrians in this report, the data includes those people who travel by walking and public transport (tube, train and bus) as these journeys all begin and end on foot.

## Pedestrian Comfort Level Assessment

the Pedestrian Comfort Level (PCL) Assessment methodology which assesses the capacity of footways in terms of clear width. The PCL Assessment provides an analysis of footway clear width, street furniture, and pedestrian flows at any given location to determine the level of comfort for pedestrians, with a PCL of A providing the lowest footway occupancy and therefore highest comfort and a PCL of E providing the highway footway occupancy and therefore lowest level of comfort as shown in Figure 1.

Figure 1 – Pedestrian Level of Comfort on Footways



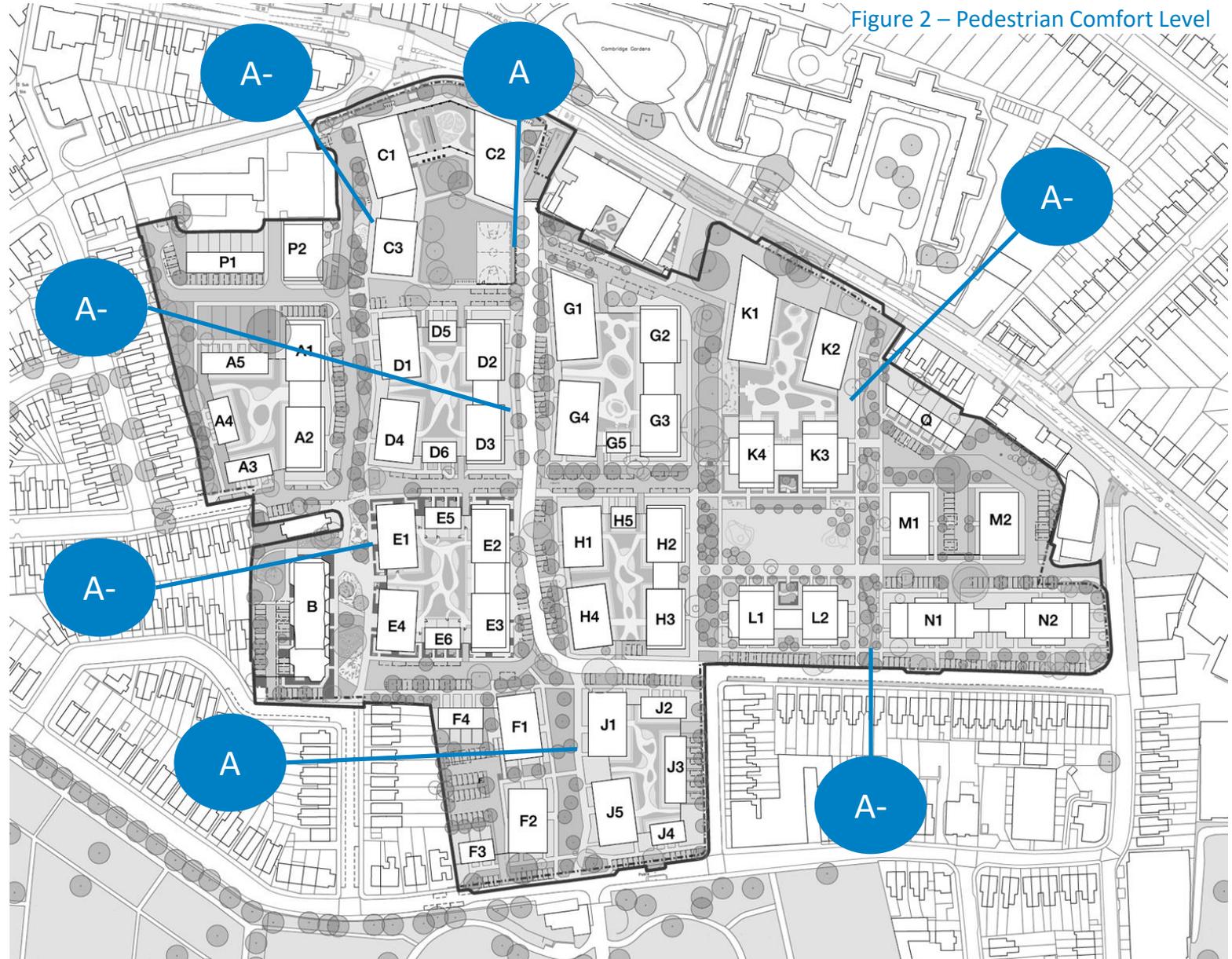
# CRE – Pedestrian Comfort Scores

The PCL (Pedestrian Comfort Level) for seven locations across the illustrative masterplan has been undertaken. Given that detailed design has not yet been undertaken it has been assumed that no street furniture is present.

However in order to be robust the flows used in each location are the total pedestrian flows (walking, tube, train and bus) flows for the entire site (not for that particular area). In reality it is highly unlikely that the flows will reach these numbers on any given day. Therefore the analysis is considered to be robust.

All locations assessed have a score of A- and above. This means the locations are classed as 'Comfortable' for all area characteristics as defined within the TfL guidance. This indicates that there is ample space for people to walk at the speed and the route they choose.

The outputs from the TfL Pedestrian Level Calculator are provided in Table 1 on the next page.



# CRE – Pedestrian Comfort Assessment: Footway Comfort

## Table 1 – Results from the TfL Pedestrian Comfort Level Calculator (Print Sheet (Footway))

Summary Info	Location Name	West of Plot C3	West of Plot E1	East of Madingly Gardens	East of Plot E
	Location Type	Full Footway Width	Full Footway Width	Full Footway Width	Full Footway Width
	Area Type	Residential	Residential	Residential	Residential
	Average Flow (PPH)		0	0	0
	Peak Hour Flow (PPH)	805	805	805	805
	Total Footway Width	2.6m	2m	3.5m	2m
	Clear Footway Width	2.4m	2m	3.1m	2m
	Total Street Furniture Impact	0m	0m	0m	0m
Pedestrian Comfort (At peak hour flow levels)	Pedestrian Comfort Level (PCL)	A- : 6 ppmm	A- : 7 ppmm	A : 4 ppmm	A- : 7 ppmm
	Total Width Required for PCL B+	1.70	1.50	1.90	1.50
	Clear Width Required For PCL B+	1.50	1.50	1.50	1.50
Pedestrian Comfort (Average of Maximum Activity)	Pedestrian Comfort Level (PCL)	A+ : 0 ppmm	A+ : 0 ppmm	A+ : 0 ppmm	A+ : 0 ppmm
	Total Width Required for PCL B+	1.70	1.50	1.90	1.50
	Clear Width Required For PCL B+	1.50	1.50	1.50	1.50
Summary Info	Location Name	Between Plot F & J	East of Plot K2	South of Plot N1	
	Location Type	Full Footway Width	Full Footway Width	Full Footway Width	
	Area Type	Residential	Residential	Residential	
	Average Flow (PPH)	0		0	
	Peak Hour Flow (PPH)	805.0086293	805	805	
	Total Footway Width	3.5m	2m	2m	
	Clear Footway Width	3.5m	2m	2m	
	Total Street Furniture Impact	0m	0m	0m	
Pedestrian Comfort (At peak hour flow levels)	Pedestrian Comfort Level (PCL)	A : 4 ppmm	A- : 7 ppmm	A- : 7 ppmm	
	Total Width Required for PCL B+	1.50	1.50	1.50	
	Clear Width Required For PCL B+	1.50	1.50	1.50	
Pedestrian Comfort (Average of Maximum Activity)	Pedestrian Comfort Level (PCL)	A+ : 0 ppmm	A+ : 0 ppmm	A+ : 0 ppmm	
	Total Width Required for PCL B+	1.50	1.50	1.50	
	Clear Width Required For PCL B+	1.50	1.50	1.50	

# Cambridge Road Estate – Healthy Streets Assessment



# CRE – TFL Healthy Streets Assessment

*“The Mayor of London is committed to taking the Healthy Streets Approach, which aims to put people and their health at the centre of decisions about how we design, manage and use public spaces. It aims to make our streets healthy, safe and welcoming for everyone. The Approach is based on the 10 Healthy Streets Indicators which focus on the experience of people using streets.”*

Guide to the Healthy Streets Indicators (TfL).

Policy T2 Healthy Streets of The Draft London Plan states that Development Proposals should:

- 1) demonstrate how they will deliver improvements that support the ten Healthy Streets Indicators in line with Transport for London guidance
- 2) reduce the dominance of vehicles on London’s streets whether stationary or moving
- 3) be permeable by foot and cycle and connect to local walking and cycling networks as well as public transport.

Whilst the Healthy Streets assessment holds no formal status in guidance and decision making it is a useful tool in decision making which helps inform people on how a project fits with in with TfL’s Healthy Streets Policy.

It has therefore been used in three locations across the Illustrative Masterplan as indicated on the next page.



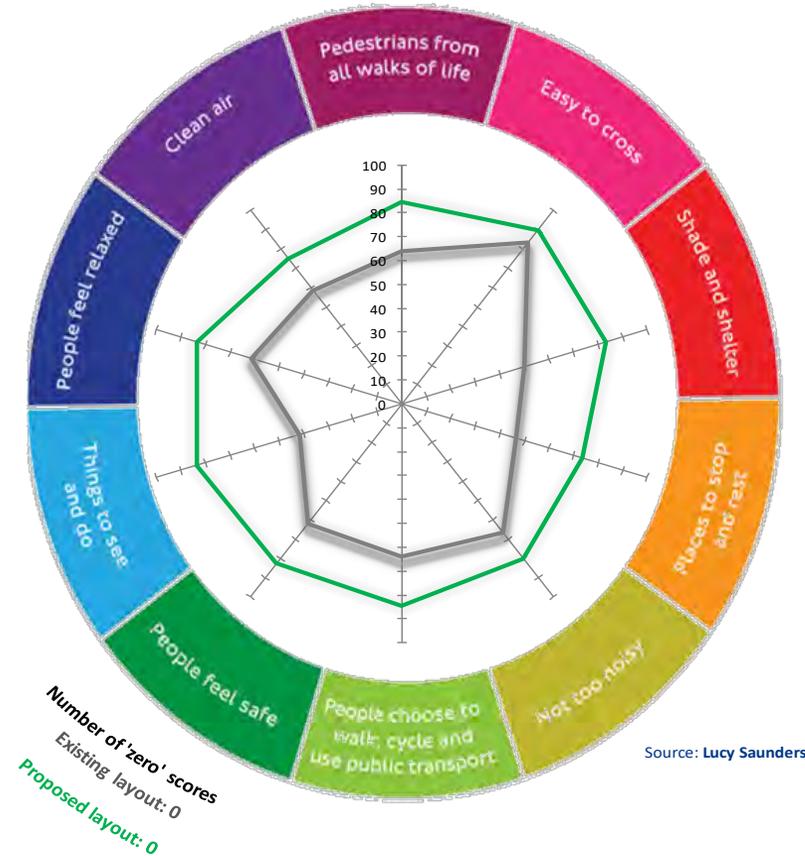
# CRE – Vincent Road Healthy Streets Assessment

## Vincent Road Healthy Streets Results

The Healthy Street Assessment of Vincent Road is shown in Figure 3.

The assessment demonstrates that these proposals will result in significant improvements in each of the Healthy Streets metrics with the overall score increasing from 63 to 83.

This indicates that the proposals would result in a significant improvement in the overall quality of streetscape and urban environment.



## Healthy Streets Indicators' scores (%)

(Results will only display once all metrics have been scored)

	Existing layout	Proposed layout
Pedestrians from all walks of life	64	85
Easy to cross	83	90
Shade and shelter	50	83
Places to stop and rest	47	73
Not too noisy	67	80
People choose to walk, cycle and use public transport	64	85
People feel safe	62	83
Things to see and do	42	83
People feel relaxed	61	83
Clean Air	58	75
Overall Healthy Streets Check score	63	83
Number of 'zero' scores	0	0

Figure 3: Vincent Road Healthy Streets Assessment

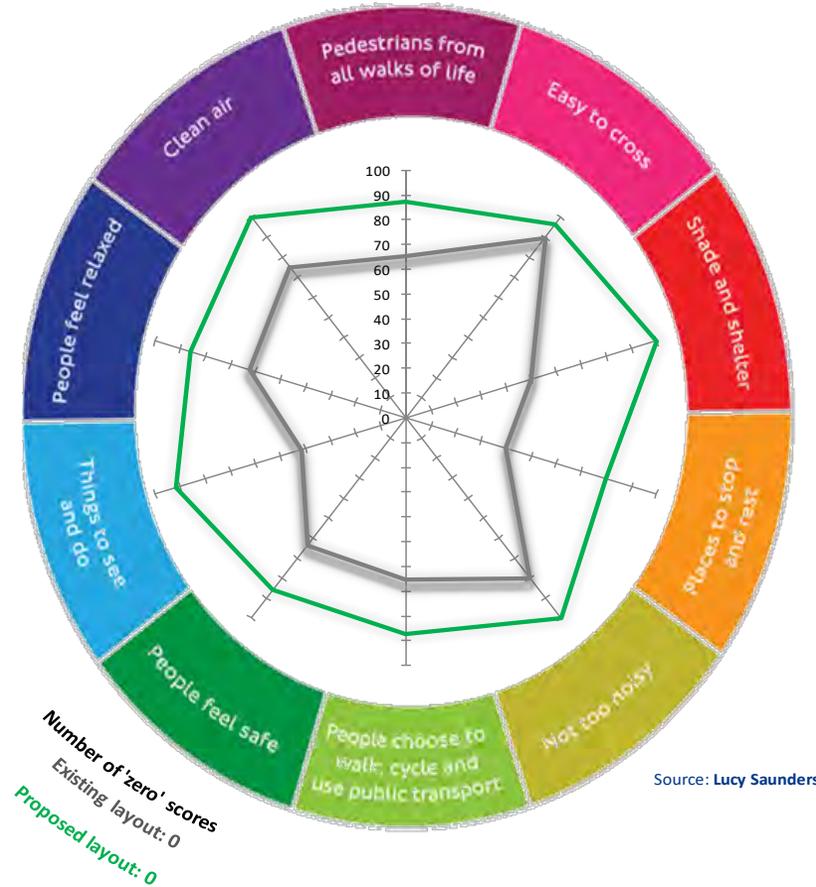
# CRE – Washington Road Healthy Streets Assessment

## Washington Road Healthy Streets Results

The Healthy Street Assessment of Vincent Road is shown in Figure 4.

The assessment demonstrates that the proposals will result in significant improvements in each of the Healthy Streets metrics with the overall score increasing from 65 to 88.

This indicates that the proposals would result in a significant improvement in the overall quality of streetscape and urban environment.



## Healthy Streets Indicators' scores (%)

(Results will only display once all metrics have been scored)

	Existing layout	Proposed layout
Pedestrians from all walks of life	65	87
Easy to cross	90	97
Shade and shelter	50	100
Places to stop and rest	40	80
Not too noisy	80	100
People choose to walk, cycle and use public transport	65	87
People feel safe	63	86
Things to see and do	42	92
People feel relaxed	63	86
Clean Air	75	100
Overall Healthy Streets Check score	65	88
Number of 'zero' scores	0	0

Figure 4: Vincent Road Healthy Streets Assessment

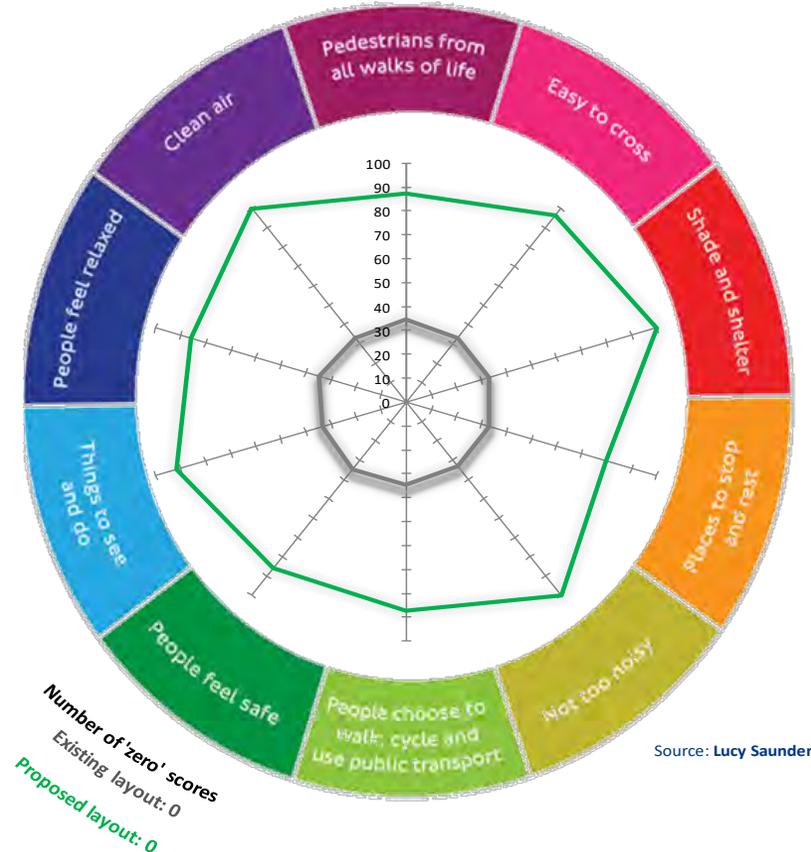
# CRE – New Central Street Healthy Streets Assessment

## New Central Street Healthy Streets Results

The Healthy Street Assessment of Vincent Road is shown in Figure 5.

The assessment demonstrates that the proposed new road has scored very well under each of the Healthy Streets metrics with an overall score of 88.

This indicates that the proposals would result in a significant improvement in the overall quality of streetscape and urban environment.



## Healthy Streets Indicators' scores (%)

(Results will only display once all metrics have been scored)

	Existing layout	Proposed layout
Pedestrians from all walks of life	35	87
Easy to cross	33	97
Shade and shelter	33	100
Places to stop and rest	33	80
Not too noisy	33	100
People choose to walk, cycle and use public transport	35	87
People feel safe	35	86
Things to see and do	33	92
People feel relaxed	35	86
Clean Air	33	100
Overall Healthy Streets Check score	34	88
Number of 'zero' scores	0	0

Figure 5: Vincent Road Healthy Streets Assessment

# CRE – Summary of indicator improvements

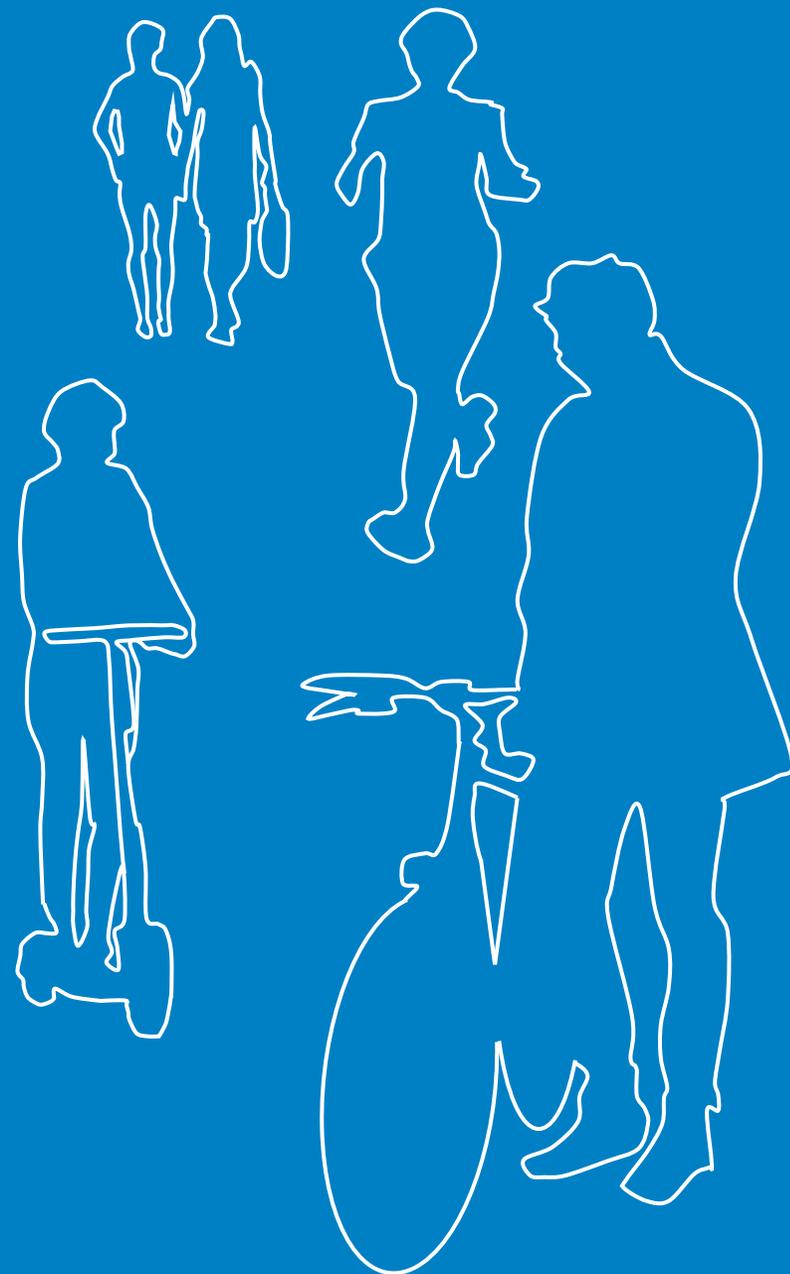
Table 2 provides a summary of the improvements across the Healthy Streets indicators that will be delivered as part of the CRE redevelopment.

It is these overarching improvements that result in the significant increases in Healthy Streets forecast across the three main routes within the site.

Indicator	Description
Choose to walk, cycle and use public transport	The new footway layout throughout the site, as well as the newly introduced public realm will provide an attractive environment for walking and cycling. The new short and long stay cycle parking will also ensure people cycling can easily stop and secure cycles at convenient locations for accessing shops and services.
Pedestrians from all walks of life	The newly introduced public realm will be an accessible and welcoming place for all, as it will provide smooth and level pavement. The new wide footways within the site will ensure that it will support a range of activities.
Easy to cross	Dropped kerbs and tactile paving along with good levels of visibility so that people crossing can see oncoming traffic and be seen provide safer routes for pedestrians.
People feel safe	The new public realm areas will ensure that the site will have a lot of active frontage overlooking the pavement, and people will regularly be going in and out of buildings and passing by. This will ensure people feel safe in the vicinity of the site.
Things to see and do	The introduction of office and retail units at the ground floor level will make the site an interesting and engaging place to walk and spend time. There are also lots of opportunities to use plantings and lighting to make the site more interesting and engaging.
Places to stop and rest	The new public realm areas will provide numerous opportunities for people to sit down and rest.
People feel relaxed	The proposed development will make the site feel well maintained, with high quality paving throughout and widened footways ensuring people feel relaxed. High quality plantings will also support in creating a peaceful environment.
Not too noisy	The noise levels are expected to continue to be low due to the low volume of vehicles.
Clean Air	A Delivery & Servicing Plan (DSP) has been produced for the site, which will require the estate management team to encourage vehicles to switch off their engines immediately when stationary, as well as encouraging deliveries to be consolidated and vehicles to be backloaded, reducing the overall number of vehicles attending the site. Additional planting will also benefit air quality.
Shade and Shelter	The proposed tree planting will provide a canopy providing shelter in the case of rain or sun.

Table 2 – Summary of Indicators

# Cambridge Road Estate – Pedestrian Comfort & Healthy Streets Summary



MARKIDES  
ASSOCIATES

# CRE – Summary

## Pedestrian Comfort Analysis – Key Points

- The proposed design scores highly for pedestrian comfort. The pedestrian environment is very comfortable at PCL A- to A+ with plenty of space for people to walk at the speed and the route that they choose.
- The proposed AM peak pedestrian flows for the entire masterplan were used for each footway analysis as a worst-case assessment, and therefore robust.
- The masterplan provides pedestrians with a number of different routes throughout the site, permeability is therefore high.
- The assessment supports the redevelopment of the Cambridge Road Estate and that the proposed masterplan design provides appropriate infrastructure for walking.

## Healthy Streets Assessment – Key Points

- All 3 of the street sections assessed scored highly. Both sections which could be compared against their current state showed significant score improvement, whilst the new street section also scored well across the ten Healthy Street indicators.
- Whilst the estate currently scores quite well in certain aspects, the new design significantly increases the scores across the 'People feel safe', 'things to see and do', 'pedestrians from all walks of life', and 'places to stop and rest' indicators.
- The assessment supports the redevelopment of the Cambridge Road Estate and that the proposed masterplan design creates a more welcoming environment which encourages active modes of travel.





# APPENDIX G – EXISTING RESIDENTIAL TRICS OUTPUT

Calculation Reference: AUDIT-860401-201108-1104

## TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL  
 Category : M - MIXED PRIVATE/AFFORDABLE HOUSING  
 MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON	
	BE BEXLEY	1 days
	BT BRENT	1 days
	EG EALING	2 days
	EN ENFIELD	1 days
	GR GREENWICH	1 days
	HO HOUNSLOW	1 days
	RD RICHMOND	1 days

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

## Primary Filtering selection:

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

Parameter: No of Dwellings  
 Actual Range: 74 to 455 (units: )  
 Range Selected by User: 40 to 1751 (units: )

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/12 to 24/04/19

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

Selected survey days:

Tuesday	2 days
Wednesday	3 days
Thursday	3 days

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

Selected survey types:

Manual count	8 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	7
Edge of Town	1

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

Selected Location Sub Categories:

Development Zone	1
Residential Zone	5
No Sub Category	2

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

Secondary Filtering selection:

Use Class:

C3 8 days

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

Population within 500m Range:

All Surveys Included

Population within 1 mile:

20,001 to 25,000 1 days  
25,001 to 50,000 4 days  
50,001 to 100,000 3 days

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

Population within 5 miles:

250,001 to 500,000 1 days  
500,001 or More 7 days

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

Car ownership within 5 miles:

0.6 to 1.0 8 days

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

Travel Plan:

Yes 6 days  
No 2 days

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

PTAL Rating:

1a (Low) Very poor 1 days  
1b Very poor 4 days  
2 Poor 1 days  
3 Moderate 1 days  
4 Good 1 days

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

LIST OF SITES relevant to selection parameters

1	BE-03-M-01 LARNER ROAD ERITH	FLATS & SEMI DETACHED	BEXLEY
	Edge of Town Residential Zone Total No of Dwellings: 343 <i>Survey date: THURSDAY 20/09/18</i>		<i>Survey Type: MANUAL</i>
2	BT-03-M-03 HIGH ROAD NEASDEN	BLOCKS OF FLATS	BRENT
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 74 <i>Survey date: THURSDAY 19/05/16</i>		<i>Survey Type: MANUAL</i>
3	EG-03-M-04 BOLLO BRIDGE ROAD ACTON SOUTH ACTON	BLOCKS OF FLATS	EALING
	Suburban Area (PPS6 Out of Centre) No Sub Category Total No of Dwellings: 167 <i>Survey date: TUESDAY 13/06/17</i>		<i>Survey Type: MANUAL</i>
4	EG-03-M-05 BOLLO BRIDGE ROAD ACTON SOUTH ACTON	BLOCKS OF FLATS & HOUSES	EALING
	Suburban Area (PPS6 Out of Centre) No Sub Category Total No of Dwellings: 106 <i>Survey date: WEDNESDAY 14/06/17</i>		<i>Survey Type: MANUAL</i>
5	EN-03-M-01 CARTERHATCH LANE ENFIELD	BLOCKS OF FLATS & TERRACED	ENFIELD
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 220 <i>Survey date: WEDNESDAY 22/06/16</i>		<i>Survey Type: MANUAL</i>
6	GR-03-M-02 CHRISTCHURCH WAY GREENWICH	BLOCKS OF FLATS	GREENWICH
	Suburban Area (PPS6 Out of Centre) Development Zone Total No of Dwellings: 455 <i>Survey date: TUESDAY 13/12/16</i>		<i>Survey Type: MANUAL</i>
7	HO-03-M-01 PUMP HOUSE CRESCENT BRENTFORD	BLOCKS OF FLATS	HOUNSLOW
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 336 <i>Survey date: WEDNESDAY 21/11/18</i>		<i>Survey Type: MANUAL</i>
8	RD-03-M-01 WILLIAMS LANE RICHMOND MORTLAKE	MIXED FLATS & HOUSES	RICHMOND
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 76 <i>Survey date: THURSDAY 10/03/16</i>		<i>Survey Type: MANUAL</i>

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

TRIP RATE for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING  
MULTI-MODAL TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	222	0.030	8	222	0.103	8	222	0.133
08:00 - 09:00	8	222	0.051	8	222	0.128	8	222	0.179
09:00 - 10:00	8	222	0.050	8	222	0.060	8	222	0.110
10:00 - 11:00	8	222	0.047	8	222	0.055	8	222	0.102
11:00 - 12:00	8	222	0.049	8	222	0.053	8	222	0.102
12:00 - 13:00	8	222	0.051	8	222	0.064	8	222	0.115
13:00 - 14:00	8	222	0.051	8	222	0.055	8	222	0.106
14:00 - 15:00	8	222	0.046	8	222	0.057	8	222	0.103
15:00 - 16:00	8	222	0.082	8	222	0.057	8	222	0.139
16:00 - 17:00	8	222	0.081	8	222	0.065	8	222	0.146
17:00 - 18:00	8	222	0.087	8	222	0.064	8	222	0.151
18:00 - 19:00	8	222	0.110	8	222	0.055	8	222	0.165
19:00 - 20:00	8	222	0.085	8	222	0.060	8	222	0.145
20:00 - 21:00	8	222	0.070	8	222	0.043	8	222	0.113
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.890			0.919			1.809

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

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

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## Parameter summary

Trip rate parameter range selected: 74 - 455 (units: )  
 Survey date range: 01/01/12 - 24/04/19  
 Number of weekdays (Monday-Friday): 8  
 Number of Saturdays: 0  
 Number of Sundays: 0  
 Surveys automatically removed from selection: 0  
 Surveys manually removed from selection: 0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	222	0.054	8	222	0.364	8	222	0.418
08:00 - 09:00	8	222	0.104	8	222	0.509	8	222	0.613
09:00 - 10:00	8	222	0.106	8	222	0.186	8	222	0.292
10:00 - 11:00	8	222	0.091	8	222	0.136	8	222	0.227
11:00 - 12:00	8	222	0.107	8	222	0.138	8	222	0.245
12:00 - 13:00	8	222	0.120	8	222	0.146	8	222	0.266
13:00 - 14:00	8	222	0.128	8	222	0.133	8	222	0.261
14:00 - 15:00	8	222	0.131	8	222	0.149	8	222	0.280
15:00 - 16:00	8	222	0.303	8	222	0.165	8	222	0.468
16:00 - 17:00	8	222	0.281	8	222	0.160	8	222	0.441
17:00 - 18:00	8	222	0.292	8	222	0.165	8	222	0.457
18:00 - 19:00	8	222	0.337	8	222	0.143	8	222	0.480
19:00 - 20:00	8	222	0.244	8	222	0.137	8	222	0.381
20:00 - 21:00	8	222	0.200	8	222	0.096	8	222	0.296
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			2.498			2.627			5.125

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

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

## **APPENDIX H – PROPOSED C3 PRIVATE HOUSING TRICS OUTPUT**

Calculation Reference: AUDIT-860401-201108-1149

## TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL  
 Category : C - FLATS PRIVATELY OWNED  
 MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON	
	BT BRENT	1 days
	HG HARINGEY	1 days

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

## Primary Filtering selection:

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

Parameter:	No of Dwellings
Actual Range:	30 to 472 (units: )
Range Selected by User:	9 to 493 (units: )

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/12 to 06/03/20

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

Selected survey days:

Wednesday	2 days
-----------	--------

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

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2
------------------------------------	---

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

Selected Location Sub Categories:

Development Zone	1
Residential Zone	1

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

## Secondary Filtering selection:

Use Class:

C3	2 days
----	--------

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

Population within 500m Range:

All Surveys Included

## Secondary Filtering selection (Cont.):

Population within 1 mile:

25,001 to 50,000	1 days
50,001 to 100,000	1 days

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

Population within 5 miles:

500,001 or More	2 days
-----------------	--------

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
------------	--------

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

Travel Plan:

No	2 days
----	--------

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

PTAL Rating:

4 Good	1 days
5 Very Good	1 days

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

LIST OF SITES relevant to selection parameters

1	BT-03-C-02 ENGINEERS WAY WEMBLEY	BLOCKS OF FLATS		BRENT
	Suburban Area (PPS6 Out of Centre) Development Zone			
	Total No of Dwellings:		472	
	<i>Survey date: WEDNESDAY</i>		<i>30/11/16</i>	<i>Survey Type: MANUAL</i>
2	HG-03-C-02 HIGH ROAD WOOD GREEN WOODSIDE PARK	BLOCK OF FLATS		HARINGEY
	Suburban Area (PPS6 Out of Centre) Residential Zone			
	Total No of Dwellings:		30	
	<i>Survey date: WEDNESDAY</i>		<i>01/10/14</i>	<i>Survey Type: MANUAL</i>

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED  
MULTI-MODAL TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	251	0.004	2	251	0.012	2	251	0.016
08:00 - 09:00	2	251	0.010	2	251	0.020	2	251	0.030
09:00 - 10:00	2	251	0.008	2	251	0.012	2	251	0.020
10:00 - 11:00	2	251	0.018	2	251	0.020	2	251	0.038
11:00 - 12:00	2	251	0.006	2	251	0.006	2	251	0.012
12:00 - 13:00	2	251	0.008	2	251	0.012	2	251	0.020
13:00 - 14:00	2	251	0.018	2	251	0.018	2	251	0.036
14:00 - 15:00	2	251	0.020	2	251	0.012	2	251	0.032
15:00 - 16:00	2	251	0.002	2	251	0.006	2	251	0.008
16:00 - 17:00	2	251	0.014	2	251	0.014	2	251	0.028
17:00 - 18:00	2	251	0.034	2	251	0.016	2	251	0.050
18:00 - 19:00	2	251	0.016	2	251	0.006	2	251	0.022
19:00 - 20:00	1	472	0.002	1	472	0.008	1	472	0.010
20:00 - 21:00	1	472	0.006	1	472	0.013	1	472	0.019
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			0.166			0.175			0.341

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

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

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## Parameter summary

Trip rate parameter range selected: 30 - 472 (units: )  
Survey date range: 01/01/12 - 06/03/20  
Number of weekdays (Monday-Friday): 2  
Number of Saturdays: 0  
Number of Sundays: 0  
Surveys automatically removed from selection: 0  
Surveys manually removed from selection: 0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	251	0.056	2	251	0.239	2	251	0.295
08:00 - 09:00	2	251	0.054	2	251	0.335	2	251	0.389
09:00 - 10:00	2	251	0.056	2	251	0.139	2	251	0.195
10:00 - 11:00	2	251	0.108	2	251	0.147	2	251	0.255
11:00 - 12:00	2	251	0.165	2	251	0.135	2	251	0.300
12:00 - 13:00	2	251	0.120	2	251	0.167	2	251	0.287
13:00 - 14:00	2	251	0.131	2	251	0.187	2	251	0.318
14:00 - 15:00	2	251	0.175	2	251	0.151	2	251	0.326
15:00 - 16:00	2	251	0.129	2	251	0.133	2	251	0.262
16:00 - 17:00	2	251	0.215	2	251	0.167	2	251	0.382
17:00 - 18:00	2	251	0.259	2	251	0.165	2	251	0.424
18:00 - 19:00	2	251	0.201	2	251	0.102	2	251	0.303
19:00 - 20:00	1	472	0.150	1	472	0.085	1	472	0.235
20:00 - 21:00	1	472	0.114	1	472	0.081	1	472	0.195
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			1.933			2.233			4.166

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL Servicing Vehicles

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	251	0.000	2	251	0.000	2	251	0.000
08:00 - 09:00	2	251	0.002	2	251	0.002	2	251	0.004
09:00 - 10:00	2	251	0.002	2	251	0.002	2	251	0.004
10:00 - 11:00	2	251	0.004	2	251	0.004	2	251	0.008
11:00 - 12:00	2	251	0.002	2	251	0.000	2	251	0.002
12:00 - 13:00	2	251	0.004	2	251	0.004	2	251	0.008
13:00 - 14:00	2	251	0.002	2	251	0.004	2	251	0.006
14:00 - 15:00	2	251	0.008	2	251	0.006	2	251	0.014
15:00 - 16:00	2	251	0.000	2	251	0.000	2	251	0.000
16:00 - 17:00	2	251	0.002	2	251	0.002	2	251	0.004
17:00 - 18:00	2	251	0.004	2	251	0.006	2	251	0.010
18:00 - 19:00	2	251	0.002	2	251	0.002	2	251	0.004
19:00 - 20:00	1	472	0.000	1	472	0.000	1	472	0.000
20:00 - 21:00	1	472	0.000	1	472	0.000	1	472	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			0.032			0.032			0.064

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

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

# **APPENDIX I – PROPOSED C3 AFFORDABLE HOUSING TRICS OUTPUT**

Calculation Reference: AUDIT-860401-201108-1109

## TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL  
 Category : D - AFFORDABLE/LOCAL AUTHORITY FLATS  
 MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON	
	HG HARINGEY	1 days
	IS ISLINGTON	1 days

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

## Primary Filtering selection:

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

Parameter: No of Dwellings  
 Actual Range: 90 to 250 (units: )  
 Range Selected by User: 15 to 339 (units: )

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/12 to 27/06/16

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

Selected survey days:

Thursday	1 days
Friday	1 days

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

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

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

Selected Locations:

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

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

Selected Location Sub Categories:

Residential Zone	2
------------------	---

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

## Secondary Filtering selection:

Use Class:

C3	2 days
----	--------

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

Population within 500m Range:

All Surveys Included

## Secondary Filtering selection (Cont.):

Population within 1 mile:

50,001 to 100,000	1 days
100,001 or More	1 days

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

Population within 5 miles:

500,001 or More	2 days
-----------------	--------

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	1 days

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

Travel Plan:

No	2 days
----	--------

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

PTAL Rating:

4 Good	1 days
5 Very Good	1 days

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

LIST OF SITES relevant to selection parameters

1	HG-03-D-03	BLOCKS OF FLATS	HARINGEY
	COMMERCE ROAD		
	WOOD GREEN		
	WOODSIDE PARK		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	90	
	Survey date: FRIDAY	26/09/14	Survey Type: MANUAL
2	IS-03-D-02	BLOCKS OF FLATS	ISLINGTON
	COPENHAGEN STREET		
	ISLINGTON		
	BARNARD PARK		
	Neighbourhood Centre (PPS6 Local Centre)		
	Residential Zone		
	Total No of Dwellings:	250	
	Survey date: THURSDAY	28/11/13	Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	170	0.029	2	170	0.026	2	170	0.055
08:00 - 09:00	2	170	0.026	2	170	0.091	2	170	0.117
09:00 - 10:00	2	170	0.024	2	170	0.041	2	170	0.065
10:00 - 11:00	2	170	0.026	2	170	0.024	2	170	0.050
11:00 - 12:00	2	170	0.024	2	170	0.044	2	170	0.068
12:00 - 13:00	2	170	0.029	2	170	0.029	2	170	0.058
13:00 - 14:00	2	170	0.029	2	170	0.024	2	170	0.053
14:00 - 15:00	2	170	0.018	2	170	0.012	2	170	0.030
15:00 - 16:00	2	170	0.044	2	170	0.021	2	170	0.065
16:00 - 17:00	2	170	0.047	2	170	0.038	2	170	0.085
17:00 - 18:00	2	170	0.041	2	170	0.032	2	170	0.073
18:00 - 19:00	2	170	0.041	2	170	0.038	2	170	0.079
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			<b>0.378</b>			<b>0.420</b>			<b>0.798</b>

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

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

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#### Parameter summary

Trip rate parameter range selected:	90 - 250 (units: )
Survey date range:	01/01/12 - 27/06/16
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS  
MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	170	0.074	2	170	0.226	2	170	0.300
08:00 - 09:00	2	170	0.135	2	170	0.568	2	170	0.703
09:00 - 10:00	2	170	0.171	2	170	0.238	2	170	0.409
10:00 - 11:00	2	170	0.121	2	170	0.168	2	170	0.289
11:00 - 12:00	2	170	0.132	2	170	0.185	2	170	0.317
12:00 - 13:00	2	170	0.200	2	170	0.215	2	170	0.415
13:00 - 14:00	2	170	0.179	2	170	0.165	2	170	0.344
14:00 - 15:00	2	170	0.206	2	170	0.165	2	170	0.371
15:00 - 16:00	2	170	0.453	2	170	0.285	2	170	0.738
16:00 - 17:00	2	170	0.412	2	170	0.229	2	170	0.641
17:00 - 18:00	2	170	0.388	2	170	0.241	2	170	0.629
18:00 - 19:00	2	170	0.312	2	170	0.197	2	170	0.509
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			2.783			2.882			5.665

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

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

---

# APPENDIX J – PROPOSED A1 RETAIL TRICS OUTPUT

Calculation Reference: AUDIT-860401-201108-1108

## TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL  
 Category : A - FOOD SUPERSTORE  
 MULTI-MODAL Servicing Vehicles

Selected regions and areas:

01 GREATER LONDON  
 HD HILLINGDON 1 days

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

## Primary Filtering selection:

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

Parameter: Gross floor area  
 Actual Range: 4200 to 4200 (units: sqm)  
 Range Selected by User: 1625 to 9394 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/12 to 11/03/20

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

Selected survey days:

Friday 1 days

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

Selected survey types:

Manual count 1 days  
 Directional ATC Count 0 days

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

Selected Locations:

Neighbourhood Centre (PPS6 Local Centre) 1

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

Selected Location Sub Categories:

Development Zone 1

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

## Secondary Filtering selection:

Use Class:

A1 1 days

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

Population within 500m Range:

All Surveys Included

## Secondary Filtering selection (Cont.):

Population within 1 mile:

50,001 to 100,000 1 days

*This data displays the number of selected surveys within stated 1-mile radii of population.*Population within 5 miles:

500,001 or More 1 days

*This data displays the number of selected surveys within stated 5-mile radii of population.*Car ownership within 5 miles:

1.1 to 1.5 1 days

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

PFS is present at the site and is included in the count 0 days

PFS is present at the site but is excluded from the count 0 days

There is no PFS at the site 1 days

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

Yes 1 days

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

2 Poor 1 days

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

LIST OF SITES relevant to selection parameters

1 HD-01-A-02 ORIENTAL SUPERMARKET HILLINGDON  
UXBRIDGE ROAD  
HAYES

Neighbourhood Centre (PPS6 Local Centre)  
Development Zone

Total Gross floor area: 4200 sqm

Survey date: FRIDAY

12/05/17

Survey Type: MANUAL

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

TRIP RATE for Land Use 01 - RETAIL/A - FOOD SUPERSTORE  
 MULTI-MODAL Servicing Vehicles  
 Calculation factor: 100 sqm  
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	1	4200	0.024	1	4200	0.024	1	4200	0.048
08:00 - 09:00	1	4200	0.024	1	4200	0.000	1	4200	0.024
09:00 - 10:00	1	4200	0.095	1	4200	0.071	1	4200	0.166
10:00 - 11:00	1	4200	0.000	1	4200	0.024	1	4200	0.024
11:00 - 12:00	1	4200	0.071	1	4200	0.048	1	4200	0.119
12:00 - 13:00	1	4200	0.095	1	4200	0.119	1	4200	0.214
13:00 - 14:00	1	4200	0.071	1	4200	0.048	1	4200	0.119
14:00 - 15:00	1	4200	0.024	1	4200	0.071	1	4200	0.095
15:00 - 16:00	1	4200	0.071	1	4200	0.048	1	4200	0.119
16:00 - 17:00	1	4200	0.071	1	4200	0.024	1	4200	0.095
17:00 - 18:00	1	4200	0.048	1	4200	0.071	1	4200	0.119
18:00 - 19:00	1	4200	0.000	1	4200	0.048	1	4200	0.048
19:00 - 20:00	1	4200	0.024	1	4200	0.000	1	4200	0.024
20:00 - 21:00	1	4200	0.000	1	4200	0.024	1	4200	0.024
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			0.618			0.620			1.238

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

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

# APPENDIX K – PROPOSED B1 WORKSPACE TRICS OUTPUT

Calculation Reference: AUDIT-860401-201108-1122

## TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT  
 Category : A - OFFICE  
 MULTI-MODAL Servicing Vehicles

Selected regions and areas:

01	GREATER LONDON	
	BT BRENT	1 days
	KN KENSINGTON AND CHELSEA	1 days

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

## Primary Filtering selection:

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

Parameter:	Gross floor area
Actual Range:	2255 to 10625 (units: sqm)
Range Selected by User:	408 to 120000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/12 to 05/11/19

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

Selected survey days:

Monday	1 days
Thursday	1 days

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

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

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

Selected Locations:

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

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

Selected Location Sub Categories:

Development Zone	1
Built-Up Zone	1

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

## Secondary Filtering selection:

Use Class:

B1	2 days
----	--------

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

Filter by Use Class Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

## Secondary Filtering selection (Cont.):

Population within 1 mile:

50,001 to 100,000	1 days
100,001 or More	1 days

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

Population within 5 miles:

500,001 or More	2 days
-----------------	--------

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
------------	--------

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

Travel Plan:

Yes	1 days
No	1 days

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

PTAL Rating:

5 Very Good	2 days
-------------	--------

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

LIST OF SITES relevant to selection parameters

1	BT-02-A-04 EMPIRE WAY WEMBLEY	OFFICES	BRENT
	Suburban Area (PPS6 Out of Centre) Development Zone		
	Total Gross floor area:	10625 sqm	
	Survey date: THURSDAY	14/05/15	Survey Type: MANUAL
2	KN-02-A-01 LADBROKE GROVE KENSAL GREEN	FRUIT DRINKS COMPANY	KENSINGTON AND CHELSEA
	Neighbourhood Centre (PPS6 Local Centre) Built-Up Zone		
	Total Gross floor area:	2255 sqm	
	Survey date: MONDAY	17/06/19	Survey Type: MANUAL

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL Servicing Vehicles

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	6440	0.023	2	6440	0.023	2	6440	0.046
08:00 - 09:00	2	6440	0.008	2	6440	0.016	2	6440	0.024
09:00 - 10:00	2	6440	0.008	2	6440	0.000	2	6440	0.008
10:00 - 11:00	2	6440	0.054	2	6440	0.047	2	6440	0.101
11:00 - 12:00	2	6440	0.008	2	6440	0.008	2	6440	0.016
12:00 - 13:00	2	6440	0.031	2	6440	0.039	2	6440	0.070
13:00 - 14:00	2	6440	0.016	2	6440	0.008	2	6440	0.024
14:00 - 15:00	2	6440	0.023	2	6440	0.008	2	6440	0.031
15:00 - 16:00	2	6440	0.008	2	6440	0.023	2	6440	0.031
16:00 - 17:00	2	6440	0.031	2	6440	0.039	2	6440	0.070
17:00 - 18:00	2	6440	0.008	2	6440	0.008	2	6440	0.016
18:00 - 19:00	2	6440	0.000	2	6440	0.000	2	6440	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			0.218			0.219			0.437

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

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

# APPENDIX L – PROPOSED A3 CAFÉ (COMMUNITY USE) TRICS OUTPUT

Calculation Reference: AUDIT-860401-201108-1151

## TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK  
 Category : B - RESTAURANTS  
 MULTI-MODAL Servicing Vehicles

Selected regions and areas:

01	GREATER LONDON	
	BT BRENT	1 days
	LB LAMBETH	1 days

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

## Primary Filtering selection:

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

Parameter:	Gross floor area
Actual Range:	150 to 194 (units: sqm)
Range Selected by User:	150 to 341 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/12 to 24/06/19

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

Selected survey days:

Monday	2 days
--------	--------

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

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

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

Selected Locations:

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

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

Selected Location Sub Categories:

Development Zone	1
No Sub Category	1

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

## Secondary Filtering selection:

Use Class:

A3	2 days
----	--------

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

Population within 500m Range:

All Surveys Included

## Secondary Filtering selection (Cont.):

Population within 1 mile:

50,001 to 100,000	1 days
100,001 or More	1 days

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

Population within 5 miles:

500,001 or More	2 days
-----------------	--------

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
------------	--------

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

Travel Plan:

Yes	1 days
No	1 days

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

PTAL Rating:

5 Very Good	1 days
6b (High) Excellent	1 days

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

LIST OF SITES relevant to selection parameters

1	BT-06-B-01 EMPIRE WAY WEMBLEY	COFFEE SHOP & RESTAURANT	BRENT
	Suburban Area (PPS6 Out of Centre) Development Zone		
	Total Gross floor area:	150 sqm	
	<i>Survey date: MONDAY</i>	<i>18/05/15</i>	<i>Survey Type: MANUAL</i>
2	LB-06-B-01 STOCKWELL ROAD STOCKWELL	PORTUGUESE RESTAURANT	LAMBETH
	Edge of Town Centre No Sub Category		
	Total Gross floor area:	194 sqm	
	<i>Survey date: MONDAY</i>	<i>24/06/19</i>	<i>Survey Type: MANUAL</i>

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

TRIP RATE for Land Use 06 - HOTEL, FOOD &amp; DRINK/B - RESTAURANTS

MULTI-MODAL Servicing Vehicles

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	1	194	0.000	1	194	0.000	1	194	0.000
08:00 - 09:00	1	194	0.000	1	194	0.000	1	194	0.000
09:00 - 10:00	1	194	0.000	1	194	0.000	1	194	0.000
10:00 - 11:00	2	172	0.000	2	172	0.000	2	172	0.000
11:00 - 12:00	2	172	0.000	2	172	0.000	2	172	0.000
12:00 - 13:00	2	172	0.000	2	172	0.000	2	172	0.000
13:00 - 14:00	2	172	0.291	2	172	0.291	2	172	0.582
14:00 - 15:00	2	172	0.000	2	172	0.000	2	172	0.000
15:00 - 16:00	2	172	0.000	2	172	0.000	2	172	0.000
16:00 - 17:00	2	172	0.000	2	172	0.000	2	172	0.000
17:00 - 18:00	2	172	0.000	2	172	0.000	2	172	0.000
18:00 - 19:00	2	172	0.000	2	172	0.000	2	172	0.000
19:00 - 20:00	2	172	0.000	2	172	0.000	2	172	0.000
20:00 - 21:00	2	172	0.000	2	172	0.000	2	172	0.000
21:00 - 22:00	2	172	0.000	2	172	0.000	2	172	0.000
22:00 - 23:00	2	172	0.000	2	172	0.000	2	172	0.000
23:00 - 24:00	2	172	0.000	2	172	0.000	2	172	0.000
Total Rates:			0.291			0.291			0.582

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

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

## **APPENDIX M – PICADY OUTPUTS FOR ST PETERS STREET**

Junctions 9
PICADY 9 - Priority Intersection Module
Version: 9.5.1.7462 © Copyright TRL Limited, 2019
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**Filename:** Proposed\_Cambridge Rd\_St Peters Site Access\_Priority with cycle lane.j9  
**Path:** M:\Projects\2019\19157-01 - Cambridge Estate\Technical\Modelling\PICADY  
**Report generation date:** 09/11/2020 15:55:25

- »2033 + Dev, AM
- »2033 + Dev, PM
- »2033 + CD + Dev, AM
- »2033 + CD + Dev, PM

**Summary of junction performance**

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
<b>2033 + Dev</b>										
Stream B-AC	D3	0.1	14.06	0.13	B	D4	0.1	12.46	0.05	B
Stream C-AB		0.0	4.66	0.03	A		0.1	4.37	0.07	A
<b>2033 + CD + Dev</b>										
Stream B-AC	D5	0.1	14.21	0.13	B	D6	0.1	12.61	0.05	B
Stream C-AB		0.0	4.65	0.03	A		0.1	4.35	0.07	A

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

**File summary**

**File Description**

<b>Title</b>	
<b>Location</b>	
<b>Site number</b>	
<b>Date</b>	06/08/2020
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	MARKIDES\Markides Associates
<b>Description</b>	

**Units**

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

### Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

### Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2033 + Dev	AM	ONE HOUR	07:45	09:15	15	✓
D4	2033 + Dev	PM	ONE HOUR	16:45	18:15	15	✓
D5	2033 + CD + Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2033 + CD + Dev	PM	ONE HOUR	16:45	18:15	15	✓

### Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

# 2033 + Dev, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.40	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Name	Description	Arm type
A	Cambridge Rd E		Major
B	St Peters Rd (Site Access)		Minor
C	Cambridge Rd W		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Cambridge Rd W	6.10			50.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

### Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - St Peters Rd (Site Access)	One lane	3.20	27	26

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	509	0.092	0.233	0.147	0.333
B-C	653	0.100	0.252	-	-
C-B	603	0.233	0.233	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2033 + Dev	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cambridge Rd E		ONE HOUR	✓	754	100.000
B - St Peters Rd (Site Access)		ONE HOUR	✓	34	100.000
C - Cambridge Rd W		ONE HOUR	✓	635	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A - Cambridge Rd E	B - St Peters Rd (Site Access)	C - Cambridge Rd W
From	A - Cambridge Rd E	0	5	749
	B - St Peters Rd (Site Access)	16	0	18
	C - Cambridge Rd W	629	6	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A - Cambridge Rd E	B - St Peters Rd (Site Access)	C - Cambridge Rd W
From	A - Cambridge Rd E	0	0	8
	B - St Peters Rd (Site Access)	0	0	0
	C - Cambridge Rd W	8	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.13	14.06	0.1	B	31	47
C-AB	0.03	4.66	0.0	A	17	25
C-A					566	849
A-B					5	7
A-C					687	1031

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	6	389	0.066	25	0.0	0.1	9.905	A
C-AB	11	3	821	0.013	11	0.0	0.0	4.643	A
C-A	467	117			467				
A-B	4	0.94			4				
A-C	564	141			564				

**08:00 - 08:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	8	350	0.087	30	0.1	0.1	11.276	B
C-AB	15	4	871	0.018	15	0.0	0.0	4.410	A
C-A	555	139			555				
A-B	4	1			4				
A-C	673	168			673				

**08:15 - 08:30**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	37	9	293	0.128	37	0.1	0.1	14.048	B
C-AB	25	6	945	0.026	25	0.0	0.0	4.127	A
C-A	674	169			674				
A-B	6	1			6				
A-C	825	206			825				

**08:30 - 08:45**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	37	9	293	0.128	37	0.1	0.1	14.058	B
C-AB	25	6	945	0.026	25	0.0	0.0	4.139	A
C-A	674	169			674				
A-B	6	1			6				
A-C	825	206			825				

**08:45 - 09:00**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	8	350	0.087	31	0.1	0.1	11.298	B
C-AB	15	4	871	0.018	16	0.0	0.0	4.441	A
C-A	555	139			555				
A-B	4	1			4				
A-C	673	168			673				

**09:00 - 09:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	6	389	0.066	26	0.1	0.1	9.924	A
C-AB	11	3	821	0.013	11	0.0	0.0	4.661	A
C-A	467	117			467				
A-B	4	0.94			4				
A-C	564	141			564				

# 2033 + Dev, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.28	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2033 + Dev	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cambridge Rd E		ONE HOUR	✓	655	100.000
B - St Peters Rd (Site Access)		ONE HOUR	✓	15	100.000
C - Cambridge Rd W		ONE HOUR	✓	757	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A - Cambridge Rd E	B - St Peters Rd (Site Access)	C - Cambridge Rd W
From	A - Cambridge Rd E	0	12	643
	B - St Peters Rd (Site Access)	7	0	8
	C - Cambridge Rd W	743	14	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A - Cambridge Rd E	B - St Peters Rd (Site Access)	C - Cambridge Rd W
From	A - Cambridge Rd E	0	0	8
	B - St Peters Rd (Site Access)	0	0	0
	C - Cambridge Rd W	8	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.05	12.46	0.1	B	14	21
C-AB	0.07	4.37	0.1	A	46	69
C-A					648	973
A-B					11	17
A-C					590	885

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	11	3	398	0.028	11	0.0	0.0	9.304	A
C-AB	28	7	896	0.031	28	0.0	0.0	4.349	A
C-A	542	135			542				
A-B	9	2			9				
A-C	484	121			484				

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	3	360	0.037	13	0.0	0.0	10.378	B
C-AB	41	10	961	0.043	41	0.0	0.1	4.117	A
C-A	639	160			639				
A-B	11	3			11				
A-C	578	145			578				

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	306	0.054	16	0.0	0.1	12.451	B
C-AB	69	17	1056	0.065	69	0.1	0.1	3.860	A
C-A	765	191			765				
A-B	13	3			13				
A-C	708	177			708				

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	305	0.054	17	0.1	0.1	12.457	B
C-AB	69	17	1056	0.065	69	0.1	0.1	3.873	A
C-A	765	191			765				
A-B	13	3			13				
A-C	708	177			708				

**17:45 - 18:00**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	3	360	0.037	14	0.1	0.0	10.387	B
C-AB	42	10	961	0.043	42	0.1	0.1	4.147	A
C-A	639	160			639				
A-B	11	3			11				
A-C	578	145			578				

**18:00 - 18:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	11	3	398	0.028	11	0.0	0.0	9.312	A
C-AB	28	7	896	0.031	28	0.1	0.0	4.365	A
C-A	542	135			542				
A-B	9	2			9				
A-C	484	121			484				

# 2033 + CD + Dev, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.40	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2033 + CD + Dev	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cambridge Rd E		ONE HOUR	✓	760	100.000
B - St Peters Rd (Site Access)		ONE HOUR	✓	34	100.000
C - Cambridge Rd W		ONE HOUR	✓	641	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A - Cambridge Rd E	B - St Peters Rd (Site Access)	C - Cambridge Rd W
From	A - Cambridge Rd E	0	5	755
	B - St Peters Rd (Site Access)	16	0	18
	C - Cambridge Rd W	635	6	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A - Cambridge Rd E	B - St Peters Rd (Site Access)	C - Cambridge Rd W
From	A - Cambridge Rd E	0	0	8
	B - St Peters Rd (Site Access)	0	0	0
	C - Cambridge Rd W	8	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.13	14.21	0.1	B	31	47
C-AB	0.03	4.65	0.0	A	17	26
C-A					571	856
A-B					5	7
A-C					693	1039

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	6	387	0.066	25	0.0	0.1	9.950	A
C-AB	11	3	823	0.013	11	0.0	0.0	4.630	A
C-A	472	118			472				
A-B	4	0.94			4				
A-C	568	142			568				

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	8	348	0.088	30	0.1	0.1	11.348	B
C-AB	16	4	874	0.018	16	0.0	0.0	4.396	A
C-A	561	140			561				
A-B	4	1			4				
A-C	679	170			679				

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	37	9	291	0.129	37	0.1	0.1	14.182	B
C-AB	25	6	949	0.027	25	0.0	0.0	4.111	A
C-A	681	170			681				
A-B	6	1			6				
A-C	831	208			831				

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	37	9	291	0.129	37	0.1	0.1	14.205	B
C-AB	25	6	949	0.027	25	0.0	0.0	4.122	A
C-A	681	170			681				
A-B	6	1			6				
A-C	831	208			831				

**08:45 - 09:00**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	8	348	0.088	31	0.1	0.1	11.371	B
C-AB	16	4	874	0.018	16	0.0	0.0	4.425	A
C-A	561	140			561				
A-B	4	1			4				
A-C	679	170			679				

**09:00 - 09:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	6	387	0.066	26	0.1	0.1	9.970	A
C-AB	11	3	823	0.013	11	0.0	0.0	4.646	A
C-A	472	118			472				
A-B	4	0.94			4				
A-C	568	142			568				

# 2033 + CD + Dev, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.29	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2033 + CD + Dev	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cambridge Rd E		ONE HOUR	✓	663	100.000
B - St Peters Rd (Site Access)		ONE HOUR	✓	15	100.000
C - Cambridge Rd W		ONE HOUR	✓	765	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A - Cambridge Rd E	B - St Peters Rd (Site Access)	C - Cambridge Rd W
From	A - Cambridge Rd E	0	12	651
	B - St Peters Rd (Site Access)	7	0	8
	C - Cambridge Rd W	751	14	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A - Cambridge Rd E	B - St Peters Rd (Site Access)	C - Cambridge Rd W
From	A - Cambridge Rd E	0	0	8
	B - St Peters Rd (Site Access)	0	0	0
	C - Cambridge Rd W	8	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.05	12.61	0.1	B	14	21
C-AB	0.07	4.35	0.1	A	47	70
C-A					655	983
A-B					11	17
A-C					597	896

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	11	3	396	0.029	11	0.0	0.0	9.358	A
C-AB	28	7	899	0.032	28	0.0	0.0	4.335	A
C-A	548	137			548				
A-B	9	2			9				
A-C	490	123			490				

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	3	358	0.038	13	0.0	0.0	10.461	B
C-AB	42	11	965	0.044	42	0.0	0.1	4.102	A
C-A	646	161			646				
A-B	11	3			11				
A-C	585	146			585				

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	302	0.055	16	0.0	0.1	12.607	B
C-AB	70	18	1061	0.066	70	0.1	0.1	3.845	A
C-A	772	193			772				
A-B	13	3			13				
A-C	717	179			717				

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	302	0.055	17	0.1	0.1	12.614	B
C-AB	70	18	1061	0.066	70	0.1	0.1	3.856	A
C-A	772	193			772				
A-B	13	3			13				
A-C	717	179			717				

**17:45 - 18:00**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	3	357	0.038	14	0.1	0.0	10.468	B
C-AB	42	11	966	0.044	42	0.1	0.1	4.132	A
C-A	646	161			646				
A-B	11	3			11				
A-C	585	146			585				

**18:00 - 18:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	11	3	396	0.029	11	0.0	0.0	9.366	A
C-AB	29	7	899	0.032	29	0.1	0.0	4.353	A
C-A	547	137			547				
A-B	9	2			9				
A-C	490	123			490				

# APPENDIX N – PICADY OUTPUTS FOR K2 ACCESS

Junctions 9
PICADY 9 - Priority Intersection Module
Version: 9.5.1.7462 © Copyright TRL Limited, 2019
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**Filename:** Proposed\_Cambridge Rd\_K2 Site Access\_Priority with cycle lane.j9  
**Path:** M:\Projects\2019\19157-01 - Cambridge Estate\Technical\Modelling\PICADY  
**Report generation date:** 09/11/2020 15:53:33

- »2033 + Dev, AM
- »2033 + Dev, PM
- »2033 + CD + Dev, AM
- »2033 + CD + Dev, PM

**Summary of junction performance**

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
<b>2033 + Dev</b>										
Stream B-AC	D3	0.1	12.13	0.08	B	D4	0.0	11.16	0.04	B
Stream C-AB		0.0	4.60	0.02	A		0.1	4.30	0.04	A
<b>2033 + CD + Dev</b>										
Stream B-AC	D5	0.1	12.24	0.08	B	D6	0.0	11.30	0.04	B
Stream C-AB		0.0	4.58	0.02	A		0.1	4.28	0.04	A

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

**File summary**

**File Description**

<b>Title</b>	
<b>Location</b>	
<b>Site number</b>	
<b>Date</b>	06/08/2020
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	MARKIDES\Markides Associates
<b>Description</b>	

**Units**

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

### Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

### Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2033 + Dev	AM	ONE HOUR	07:45	09:15	15	✓
D4	2033 + Dev	PM	ONE HOUR	16:45	18:15	15	✓
D5	2033 + CD + Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2033 + CD + Dev	PM	ONE HOUR	16:45	18:15	15	✓

### Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

# 2033 + Dev, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.23	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Name	Description	Arm type
A	Cambridge Rd E		Major
B	St Peters Rd (Site Access)		Minor
C	Cambridge Rd W		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Cambridge Rd W	6.00			50.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

### Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - St Peters Rd (Site Access)	One lane	3.30	100	67

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	560	0.102	0.258	0.162	0.368
B-C	686	0.105	0.266	-	-
C-B	603	0.234	0.234	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2033 + Dev	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cambridge Rd E		ONE HOUR	✓	745	100.000
B - St Peters Rd (Site Access)		ONE HOUR	✓	22	100.000
C - Cambridge Rd W		ONE HOUR	✓	646	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A - Cambridge Rd E	B - St Peters Rd (Site Access)	C - Cambridge Rd W
From	A - Cambridge Rd E	0	4	741
	B - St Peters Rd (Site Access)	10	0	12
	C - Cambridge Rd W	642	4	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A - Cambridge Rd E	B - St Peters Rd (Site Access)	C - Cambridge Rd W
From	A - Cambridge Rd E	0	0	8
	B - St Peters Rd (Site Access)	0	0	0
	C - Cambridge Rd W	8	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.08	12.13	0.1	B	20	30
C-AB	0.02	4.60	0.0	A	12	17
C-A					581	872
A-B					4	6
A-C					680	1020

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	423	0.039	16	0.0	0.0	8.854	A
C-AB	7	2	829	0.009	7	0.0	0.0	4.580	A
C-A	479	120			479				
A-B	3	0.75			3				
A-C	558	139			558				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	381	0.052	20	0.0	0.1	9.959	A
C-AB	10	3	880	0.012	10	0.0	0.0	4.338	A
C-A	570	143			570				
A-B	4	0.90			4				
A-C	666	167			666				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	321	0.075	24	0.1	0.1	12.119	B
C-AB	17	4	957	0.018	17	0.0	0.0	4.042	A
C-A	694	174			694				
A-B	4	1			4				
A-C	816	204			816				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	321	0.075	24	0.1	0.1	12.126	B
C-AB	17	4	957	0.018	17	0.0	0.0	4.052	A
C-A	694	174			694				
A-B	4	1			4				
A-C	816	204			816				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	381	0.052	20	0.1	0.1	9.969	A
C-AB	10	3	881	0.012	11	0.0	0.0	4.367	A
C-A	570	143			570				
A-B	4	0.90			4				
A-C	666	167			666				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	423	0.039	17	0.1	0.0	8.866	A
C-AB	7	2	829	0.009	7	0.0	0.0	4.596	A
C-A	479	120			479				
A-B	3	0.75			3				
A-C	558	139			558				

# 2033 + Dev, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.19	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2033 + Dev	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cambridge Rd E		ONE HOUR	✓	648	100.000
B - St Peters Rd (Site Access)		ONE HOUR	✓	11	100.000
C - Cambridge Rd W		ONE HOUR	✓	758	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A - Cambridge Rd E	B - St Peters Rd (Site Access)	C - Cambridge Rd W
From	A - Cambridge Rd E	0	8	640
	B - St Peters Rd (Site Access)	5	0	6
	C - Cambridge Rd W	749	9	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A - Cambridge Rd E	B - St Peters Rd (Site Access)	C - Cambridge Rd W
From	A - Cambridge Rd E	0	0	8
	B - St Peters Rd (Site Access)	0	0	0
	C - Cambridge Rd W	8	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.04	11.16	0.0	B	10	15
C-AB	0.04	4.30	0.1	A	30	45
C-A					666	998
A-B					7	11
A-C					587	881

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	433	0.019	8	0.0	0.0	8.477	A
C-AB	18	5	900	0.020	18	0.0	0.0	4.282	A
C-A	553	138			553				
A-B	6	2			6				
A-C	482	120			482				

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	10	2	393	0.025	10	0.0	0.0	9.401	A
C-AB	27	7	966	0.028	27	0.0	0.0	4.034	A
C-A	655	164			655				
A-B	7	2			7				
A-C	575	144			575				

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	12	3	335	0.036	12	0.0	0.0	11.162	B
C-AB	45	11	1061	0.042	45	0.0	0.1	3.748	A
C-A	790	197			790				
A-B	9	2			9				
A-C	705	176			705				

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	12	3	335	0.036	12	0.0	0.0	11.164	B
C-AB	45	11	1061	0.042	45	0.1	0.1	3.760	A
C-A	790	197			790				
A-B	9	2			9				
A-C	705	176			705				

**17:45 - 18:00**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	10	2	393	0.025	10	0.0	0.0	9.405	A
C-AB	27	7	966	0.028	27	0.1	0.0	4.062	A
C-A	655	164			655				
A-B	7	2			7				
A-C	575	144			575				

**18:00 - 18:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	433	0.019	8	0.0	0.0	8.482	A
C-AB	18	5	900	0.020	18	0.0	0.0	4.297	A
C-A	552	138			552				
A-B	6	2			6				
A-C	482	120			482				

# 2033 + CD + Dev, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.23	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2033 + CD + Dev	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cambridge Rd E		ONE HOUR	✓	751	100.000
B - St Peters Rd (Site Access)		ONE HOUR	✓	22	100.000
C - Cambridge Rd W		ONE HOUR	✓	652	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A - Cambridge Rd E	B - St Peters Rd (Site Access)	C - Cambridge Rd W
From	A - Cambridge Rd E	0	4	747
	B - St Peters Rd (Site Access)	10	0	12
	C - Cambridge Rd W	648	4	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A - Cambridge Rd E	B - St Peters Rd (Site Access)	C - Cambridge Rd W
From	A - Cambridge Rd E	0	0	8
	B - St Peters Rd (Site Access)	0	0	0
	C - Cambridge Rd W	8	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.08	12.24	0.1	B	20	30
C-AB	0.02	4.58	0.0	A	12	18
C-A					587	880
A-B					4	6
A-C					685	1028

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	421	0.039	16	0.0	0.0	8.893	A
C-AB	7	2	831	0.009	7	0.0	0.0	4.568	A
C-A	484	121			484				
A-B	3	0.75			3				
A-C	562	141			562				

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	379	0.052	20	0.0	0.1	10.019	B
C-AB	11	3	884	0.012	11	0.0	0.0	4.324	A
C-A	576	144			576				
A-B	4	0.90			4				
A-C	672	168			672				

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	318	0.076	24	0.1	0.1	12.236	B
C-AB	17	4	961	0.018	17	0.0	0.0	4.026	A
C-A	701	175			701				
A-B	4	1			4				
A-C	822	206			822				

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	318	0.076	24	0.1	0.1	12.244	B
C-AB	17	4	961	0.018	17	0.0	0.0	4.038	A
C-A	701	175			701				
A-B	4	1			4				
A-C	822	206			822				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	379	0.052	20	0.1	0.1	10.027	B
C-AB	11	3	884	0.012	11	0.0	0.0	4.352	A
C-A	576	144			576				
A-B	4	0.90			4				
A-C	672	168			672				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	421	0.039	17	0.1	0.0	8.905	A
C-AB	7	2	831	0.009	7	0.0	0.0	4.584	A
C-A	484	121			484				
A-B	3	0.75			3				
A-C	562	141			562				

# 2033 + CD + Dev, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.19	A

### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2033 + CD + Dev	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Cambridge Rd E		ONE HOUR	✓	656	100.000
B - St Peters Rd (Site Access)		ONE HOUR	✓	11	100.000
C - Cambridge Rd W		ONE HOUR	✓	766	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A - Cambridge Rd E	B - St Peters Rd (Site Access)	C - Cambridge Rd W
From	A - Cambridge Rd E	0	8	648
	B - St Peters Rd (Site Access)	5	0	6
	C - Cambridge Rd W	757	9	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A - Cambridge Rd E	B - St Peters Rd (Site Access)	C - Cambridge Rd W
From	A - Cambridge Rd E	0	0	8
	B - St Peters Rd (Site Access)	0	0	0
	C - Cambridge Rd W	8	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.04	11.30	0.0	B	10	15
C-AB	0.04	4.28	0.1	A	30	46
C-A					673	1009
A-B					7	11
A-C					595	892

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	430	0.019	8	0.0	0.0	8.525	A
C-AB	18	5	903	0.020	18	0.0	0.0	4.268	A
C-A	558	140			558				
A-B	6	2			6				
A-C	488	122			488				

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	10	2	390	0.025	10	0.0	0.0	9.473	A
C-AB	27	7	970	0.028	27	0.0	0.0	4.019	A
C-A	661	165			661				
A-B	7	2			7				
A-C	583	146			583				

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	12	3	331	0.037	12	0.0	0.0	11.297	B
C-AB	45	11	1067	0.043	45	0.0	0.1	3.732	A
C-A	798	199			798				
A-B	9	2			9				
A-C	713	178			713				

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	12	3	331	0.037	12	0.0	0.0	11.299	B
C-AB	46	11	1067	0.043	46	0.1	0.1	3.744	A
C-A	798	199			798				
A-B	9	2			9				
A-C	713	178			713				

**17:45 - 18:00**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	10	2	390	0.025	10	0.0	0.0	9.478	A
C-AB	27	7	970	0.028	27	0.1	0.0	4.047	A
C-A	661	165			661				
A-B	7	2			7				
A-C	583	146			583				

**18:00 - 18:15**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	430	0.019	8	0.0	0.0	8.528	A
C-AB	18	5	903	0.020	18	0.0	0.0	4.285	A
C-A	558	140			558				
A-B	6	2			6				
A-C	488	122			488				

# The Design Team

## **ACD Environmental**

Arboricultural consultant

## **Architecture in Perspective**

Visualisation artist

## **AWA Consulting**

MEP engineer

## **Base Models**

Physical modelmaker

## **Barton Willmore**

Planning consultant

Environmental Impact Assessment

Townscape Impact Assessment

## **Countryside Properties**

Developer

## **CTP Consulting**

Structural & Civil engineer

## **David Bonnett Associates**

Access and Inclusive Design consultant

## **Ensafe**

Air Quality consultants

## **GIA**

Daylight / Sunlight / RoL consultant

## **Greengage Environmental**

Ecology and biodiversity consultant

## **Hodkinson Consulting**

Sustainability / Energy consultant

## **H+H Fire**

Fire consultant

## **Markides**

Transport consultant

## **Patel Taylor**

Architect / Landscape Architect

## **Pipers**

Physical modelmaker

## **Realm**

Visualisation and verified views

## **Royal Borough of Kingston Upon Thames**

Project Joint Venture partner

## **Soundings**

Community engagement consultant

## **SRE**

Wind and microclimate consultant

## **Terence O'Rourke**

Archaeology and heritage consultant

## **ULL Property**

Viability consultant

## **WYG**

Noise and vibration

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