



PAUL MEW ASSOCIATES  
TRAFFIC CONSULTANTS 020 8780 0426

WALTHAM FOREST COUNCIL

HYLANDS ROAD,  
WALTHAMSTOW, LONDON, E17 4AJ

RESIDENTIAL TRAVEL PLAN

August 2019

## Contents

- 1.0 INTRODUCTION
- 2.0 SUSTAINABLE TRAVEL & TRAVEL PLANS IN A POLICY CONTEXT
- 3.0 SITE ACCESSIBILITY OVERVIEW
- 4.0 TRAVEL MODE PROJECTIONS
- 5.0 TRAVEL PLAN OBJECTIVES, MANAGEMENT & MEASURES
- 6.0 TARGETS, MONITORING & REVIEW
- 7.0 ACTION PLAN
- 8.0 SUMMARY

## Figures

- 1. Site Location
- 2. Public Transport Access Map

## Appendices

- A Existing Site Plan
- B Proposed Site Plan (Hard Landscaped)
- C TfL PTAL Output File
- D TRICS Trip Generation Assessment, C3 Residential
- E Zipcar Car Club Proposal & Car Club Research Paper

Travel Plan Author: Nick Ferguson  
Contact Details: [nick.ferguson@pma-traffic.co.uk](mailto:nick.ferguson@pma-traffic.co.uk) / 0208 780 0426  
Checked by: Paul Mew

Ref: File path P:\ P2147 Hylands Road Residential Travel Plan August 2019

## **I.0 INTRODUCTION**

- I.1 Paul Mew Associates is instructed by the London Borough of Waltham Forest in relation to the proposed development at Hylands Road, London, E17 4AW.
- I.2 The application site location is presented on a map in Figure 1 of this report; the existing site plan is shown in Appendix A.

### **Proposed Development**

- I.3 The proposal comprises of the redevelopment of the site to provide 120 'Social Rent' residential apartments. The scheme provides nine off-street car parking spaces all of which are Blue Badge bays, 20% of the parking bays will have active electric vehicle (EV) charge points and the remainder will have passive provision for ease of future installations.
- I.4 A S106 parking permit free legal agreement will be entered into ensuring that the proposed new flats are exempt from applying for permits to park on-street in the adjoining controlled parking zone (CPZ) 'WSE'.
- I.5 The proposed site plan (hard landscaped) is illustrated at Appendix B of this report.

### **Residential Travel Plan**

- I.6 This Residential Travel Plan has been prepared in relation to a full planning application submission to the London Borough of Waltham Forest.
- I.7 This Travel Plan (TP) has been produced to mitigate the traffic impact of the new residential units. In the short term the TP aims to publicise and raise awareness of the health / economic / environmental and social benefits of greener travel, and resultantly in the longer term aims to physically reduce the number of car borne journeys generated by the development.

- I.8 The TP itself would be initiated prior to the development being brought into use through the appointment of a Travel Plan Coordinator (TPC). This document sets out how the TP will be formulated and the range of options available.
- I.9 The primary focus of this TP will be to minimise and discourage the use of the private car, and especially single occupancy car trips, by residents and visitors from the outset of the development being brought into use, through the promotion of sustainable modes of travel.
- I.10 This document sets out how the TP scheme will be structured, how it will operate, the alternatives available and their suitability for different users.
- I.11 This TP will be secured and implemented through a S106 legal agreement.
- I.12 The developer will set aside funds for the TP. Funding will be made available to secure the TP, to monitor the TP, and to incentivise the TP through promotional and marketing measures and sustainable travel subsidies. Details of each are provided later in this report.

## 2.0 SUSTAINABLE TRAVEL & TRAVEL PLANS IN A POLICY CONTEXT

### National Policy

- 2.1 The main planning policy document which provides a context for national sustainable transport is the National Planning Policy Framework (NPPF) February 2019. The NPPF sets out key sustainable transport objectives. Promoting sustainable transport is an integral part of transportation policy.
- 2.2 An extract from section 9 'Promoting Sustainable Transport' of the NPPF February 2019 is set out as follows:

*"102. Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:*

- a) the potential impacts of development on transport networks can be addressed;*
- b) opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;*
- c) opportunities to promote walking, cycling and public transport use are identified and pursued;*
- d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and*
- e) patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places."*

*"103. The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making."*

*"106. Maximum parking standards for residential and non-residential development should only be set where there is a clear and compelling justification that they are necessary for managing the local road network, or for optimising the density of*

*development in city and town centres and other locations that are well served by public transport (in accordance with chapter 11 of this Framework). In town centres, local authorities should seek to improve the quality of parking so that it is convenient, safe and secure, alongside measures to promote accessibility for pedestrians and cyclists."*

- 2.3 The Department for Transport's (DfT) best practice guidance *Using the Planning Process to Secure Travel Plans* summarises the implementation of Travel Plans as follows;

*"The key to achieving travel plans within the planning system is the development of a clear, integrated and public policy framework together with an explicit relationship between the travel plan and the development site."*

### Regional Policy

- 2.4 At the regional level the London Plan (2016) sets out the Mayor's Strategic Approach to Transport. Policies 6.1, 6.3, 6.9, 6.10, and 6.13 are most applicable to the development proposals described herein. The emerging draft new London Plan (July 2019) is also now a material planning document.
- 2.5 TfL's Travel Planning Guidance (2013) offers guidance on the content of Travel Plans. It is noted that TfL intends to issue new guidance on Travel Planning in 2019 however the current guidance is still applicable until the new guidance is issued.
- 2.6 The key summary points from TfL's Travel Planning Guidance (2013) are extracted as follows:

*"Chapter 3 paragraph 1 - The overarching purpose of any travel plan should be to influence behaviour change and lead to use of more sustainable modes of travel and/or to reduce overall travel to/from the site. This is critical for new developments in order to facilitate the use of sustainable modes among occupiers and visitors from the outset, or to mitigate the impact of trips generated by the site. Therefore, when preparing travel plans, their authors and local authority officers should consider the overarching purpose of the particular travel plan. Whilst the*

*travel plan should be developed as a standalone document, it should aim to address any issues identified within the associated transport assessment (TA) for the development through the promotion of sustainable transport."*

Chapter 2 paragraph 2 - Full Travel Plan

*Applicants for developments at or above the strategic-level thresholds shown in Figure 2.1 must by default submit an ATTrBuTE-compliant (see section 3) Full Travel Plan which should include the content set out in section 3.*

Chapter 2 paragraph 3 - Travel Plan Statement

*Smaller developments that fall below the strategic-level Full Travel Plan threshold but which typically employ 20 or more staff, or comprise over 50 residential units, should submit a Travel Plan Statement. It may not be appropriate to set specific targets within these plans. However, a set of positive measures promoting sustainable transport should be included, together with an action plan for their implementation. The level of information required should be agreed with the local authority planning officer at the earliest opportunity."*

**Figure 2.1: Development scale guidelines for travel plans**

	Travel Plan Statement	Full Travel Plan
A1 (Food/Non-Food Retail)	More than 20 staff but less than 1,000sqm	Equal or more than 1,000sqm
A1 (Garden centres)	More than 20 staff but less than 2,500sqm	Equal or more than 2,500sqm
A2 (Financial Services)	More than 20 staff but less than 1,000sqm	Equal or more than 1,000sqm
A3/A4/A5 (Food/Drink)	More than 20 staff but less than 750sqm	Equal or more than 750sqm
B1 (Business)	More than 20 staff but less than 2,500sqm	Equal or more than 2,500sqm
B2 (Industrial)	More than 20 staff but less than 2,500sqm	Equal or more than 2,500sqm
B8 (Warehouse and Distribution)	More than 20 staff but less than 5,000sqm	Equal or more than 5,000sqm
C1 (Hotels)	More than 20 staff but less than 100 beds	Equal or more than 100 beds
C3 (Residential)	Between 50 and 80 units	Equal or more than 80 units
D1 (Hospitals/Health Centres) <sup>3</sup>	Between 20 and 50 staff	Equal or more than 50 staff

- 2.7 In accordance with the guidance set out in TfL's Travel Planning Guidance (2013), a Full Residential Travel Plan will be required for this scale of development.

## Local Policy

- 2.8 The Borough's planning policies for development are used as a basis for dealing with planning applications.
- 2.9 The existing development plan for Waltham Forest currently comprises of the adopted Core Strategy (adopted in March 2012) and the Development Management Policies (DMP) document (adopted in October 2013) as well as a suite of other plans and supplementary planning documents.
- 2.10 The Council's Core Strategy policy CS7 sets out the overarching sustainable transport measures which the Council expects development to accommodate. The policy is extracted for ease of reference:

### *"Policy CS7 - Developing a Sustainable Transport*

*The Council will facilitate growth and regeneration in a sustainable manner and promote sustainable travel by:*

#### ***Coordination of Land Use and Transport***

*A) working with TfL, Network Rail and other partners to facilitate the delivery of key transport infrastructure improvements in the Borough to support regeneration and growth, in particular the reinstatement of the Chingford – Stratford line;*

*B) safeguarding land as shown on the Policies Map for Crossrail 2 Line;*

*C) guiding developments to located town centres and to areas that are well accessible by public transport, including our key growth areas and requiring them to be designed to reduce the need to travel and to encourage walking, cycling and access to public transport;*

*D) requiring Transport Assessments and Travel Plans where appropriate in support of planning applications to determine potential transport impacts and to demonstrate how the development minimises and mitigates the expected impacts and working with and encouraging existing high trip generating organisations to prepare a Travel Plan;*

#### ***Sustainable Transport Network***

*E) actively encouraging walking and cycling by providing an attractive public realm and safe, convenient and accessible routes and facilities throughout the Borough;*



*F) working with partners to improve the accessibility, reliability and quality of the public transport system and its integration with other transport modes;*

***Managing Private Motorised Transport***

*G) managing traffic flow and speed and implementing public realm and streetscape improvements, including the reallocation of road space in both cases by reference to; the importance of streets for particular modes (within a road hierarchy and a road user hierarchy to be defined in the Development Management Policies DPD); road safety; locations of high pedestrian demand; the need for pedestrian, cycle and public transport infrastructure; regeneration priorities; design parameters such as the extent of carriageway; funding availability and other criteria to be set out in the Development Management Policies DPD;*

*H) managing the demand for private car travel by protecting the continued provision of existing and promoting the expansion of cab services, car clubs, pool cars, and low emission motor vehicles, and working with the Mayor of London's to implement the electric car strategy;*

*I) managing parking requirements effectively across the Borough to minimise the negative impacts of traffic and reducing reliance on car for journeys by requiring car, motorcycle and cycle parking facilities in accordance with the maximum car and minimum cycle parking standards set out in the Development Management Policies DPD, managing on street parking, and promoting car free and car-capped developments; and*

***Freight***

*J) promoting the sustainable movement of freight and minimising the impact of freight movement on local amenity, traffic and the environment."*

2.11 The Council's DMP October 2013 provides more detailed policy standards and requirements with respect to shaping new development in the Borough. Policies DMP 13-16 are of material importance to the assessment of this proposed development and are therefore extracted as follows for ease of reference:

***"Policy DM13 Co-ordinating Land Use and Transport***

*The Council will ensure that development is properly integrated with the transport network and is supported by appropriate walking, cycling and public transport links by;*

*A) where development is not within easy reach of public transport stops, requiring applications to propose and implement measures that promote sustainable travel and contribute to reducing car use.*

*B) requiring major developments to be permeable and ensure that linkages and publicly accessible through routes are created to successfully integrate development into the wider street network, to integrate developments with the existing transport networks, and to create good connections to existing neighbourhoods and town centres; the Council will resist proposals for gated developments;*

*C) seeking financial contributions to address a shortfall, where a development cannot demonstrate in the supporting Transport Assessment and Travel Plan required by CS7 to the Council's satisfaction that the expected traffic impacts will be fully mitigated within the borough's transport network;*

*D) requiring developments with significant transport impacts to submit a Travel Plan, in accordance with Department for Transport and Transport for London guidance and emerging local standards; including defined targets, implementation and funding, and monitoring regime;*

*E) requiring development proposals to submit Construction Logistics Plans, Delivery and Servicing Plans and the uptake of the Freight Operators Recognition Scheme where appropriate in accordance with the London Freight Plan and coordinated with travel plans;*

*F) requiring all Heavy Goods Vehicles (HGV) and Passenger Carrying Vehicles (PCV) drivers and contractors involved in the construction and servicing of new development within Waltham Forest to undertake on-road Safe Urban Driving cyclist awareness training and have appropriate safety devices fitted to their vehicles in accordance with the Council's adopted Waltham Forest Cycling Action Plan 2012;*

*G) where a Transport Assessment/Statement indicates an appreciable increase in car traffic within 200m of Epping Forest SAC (as indicated in Figure 14 in the Core Strategy and on the emerging proposals map), the Council will require the development to demonstrate that the expected impacts of a development on the air quality will not exceed 0.1 kg nitrogen per ha per year (this being equivalent to 1% of the critical load for the habitats on site); where this threshold is exceeded, the proposal will need to demonstrate to the Council's satisfaction that the effect will not be significant or appropriate mitigation measures will be put in place to minimise the adverse impact on the integrity of Epping Forest which may include the use of financial contributions;*

*H) where significant improvements to the transport networks and associated infrastructure are required as a consequence of development impacts, the Council may require these to be phased so that improvements are in place prior to completion of development (in line with CS1); where necessary, the Council may require developer contributions for this in accordance with DM36.*

#### ***Policy DM14 Sustainable Transport Network***

*The Council will actively encourage sustainable travel by:*

- A) prioritising the needs of sustainable transport modes in accordance with the following street user hierarchy: pedestrians; cyclists; public transport users; special vehicle services (including taxis, delivery, and servicing needs); and other motorised transport. Inclusive design for all users, including the elderly and people with disabilities will be a key principle throughout this movement hierarchy.*
- B) requiring major development to develop and contribute to, a well-connected network of streets that optimises permeability and legibility;*
- C) ensuring that development does not have a harmful impact on the walking and cycling environment;*
- D) requiring proposals for transport infrastructure to take full account of the requirements for walking and cycling, ensuring that pedestrian and cycle facilities are high quality, safe and comfortable and consider provision of complementary infrastructure including lighting, wayfinding and signage;*
- E) requiring development to contribute towards creating activity and natural surveillance and thereby contributing to an attractive and safe environment for pedestrians, cyclists, and the wider community;*
- F) requiring development to provide features associated with pedestrian and cycle access such as seating, safe road crossings where appropriate, secure and convenient cycle parking, and workplace showers and lockers; and*
- G) seeking development contributions towards enhancing public transport provision and infrastructure; ensuring direct, secure, accessible and pleasant walking routes to stops; contributing to signage, timetable, real time information and waiting facilities; and implementing new stops in accordance with TfL's 'Accessible Bus Stop Design Guidance' in convenient and safe locations.*

#### ***Policy DM15 Managing Private Motorised Transport***

*Connecting to the Highway Network*

*The Council will ensure the most efficient use of the borough's available highway network through the following;*

- A) applying the road hierarchy as a tool for prioritising*
  - the use of the different routes in a network for different purposes; and*
  - the use of scarce street space between competing activities, including through movement and other urban activities;*
- B) requiring development to connect to the highway network in a way that encourages road users to use the most appropriate road in accordance with*

*Waltham Forest's road hierarchy as set out in Figure 16.1, discouraging through-traffic from using local roads and avoiding individual access direct to the TLRN, SRN and district distributor roads;*

***Public Realm works and highway safety***

*The Council will ensure that works affecting the public highway are carried out safely by;*

*C) requiring development proposals to demonstrate that they will not cause any harm or hindrance to highway safety, in particular to vulnerable road users, and requiring development to contribute towards improving safety where appropriate;*

*D) requiring development to contribute towards a high quality public realm taking a holistic approach to public realm design, tackling congestion and promoting the bus network in accordance with the London Plan;*

*E) ensuring that any construction damage to the public realm and transport network links following development is repaired and sympathetically reinstated to the satisfaction of the Council.*

***Policy DM16***

***Parking***

*The Council will seek to effectively manage parking and to ensure the provision of safe and attractive parking facilities by;*

*A) encouraging car-free and car-capped development in locations that are highly accessible by public transport; are accessible to opportunities and services, and/or have high levels of parking stress;*

*B) where a car-free and car-capped development is implemented, limiting on-site car parking for these developments to spaces designed for disabled people and operational and service needs and introducing controlled parking zones in the vicinity of the development; occupants of car free developments will not be issued with on-street parking permits;*

*C) resisting proposals that are likely to; hinder pedestrian movement or prove injurious to highway safety; provide inadequate sight lines for vehicles leaving the site; and/or reduce on-street parking provision in areas where on-street parking spaces cannot meet existing demand;*

*D) requiring development proposals to provide for well designed, high quality parking facilities in accordance with the Council's maximum car parking and minimum cycle parking standards as set out in Appendix 4; as a general guide, the Council will encourage lower car parking provision than the stated maximum standards;*

*E) requiring development proposals to consider the provision of parking spaces in accordance with the following parking needs hierarchy: disabled parking needs car*

*clubs resident parking (low emission vehicles) operational and servicing requirements local business parking short-term visitor parking long-term visitor parking While these priorities are granted for the borough as a whole, they may vary locally depending on development type, location and function of the specific street type.*

*F) requiring development to provide sufficient on-site facilities for operational or servicing needs and sufficient pick-up, drop-off and waiting areas for taxis, cars and coaches, where these activities are likely to be associated with the development;*

*G) requiring parking to be designed to be safe and secure, to achieve place-making objectives, to minimise land take and to minimise the urban heat island effect by providing adequate soft landscaping, permeable surfaces and other treatments to offset adverse impacts of surface water run-off;*

*H) requiring parking proposals in accordance with Policy DM29 (ix); I) ensuring that one in five parking spaces (for both active and passive) provide an electrical charging point to encourage the uptake of electric vehicles in accordance with the London Plan; and*

*J) seeking contributions towards sustainable transport measures including the introduction of car clubs, Controlled Parking Zones, Home Zones and 'DIY Streets', pool cars, cycle hire schemes and public electric vehicle charging points."*

2.12 The following chapter looks at the site's accessibility characteristics for all modes of travel.

### 3.0 SITE ACCESSIBILITY OVERVIEW

#### Public Transport

- 3.1 In terms of public transport, in order to demonstrate the accessibility attributes of the application site in the context of its surroundings, a public transport accessibility level (PTAL) assessment has been undertaken.
- 3.2 The PTAL system, widely used by local authorities and the Greater London Authority (GLA), assigns a 'score' to any given location based on the level of public transport accessible from the site within reasonable walking distances and wait times.
- 3.3 Details on how PTAL scores are calculated are set out in TfL's *'Transport Assessment best practice guidance document'*.
- 3.4 TfL provides an online GIS-based PTAL tool on their website. The GIS-based PTAL tool uses spatial data such as point data files (e.g. bus stops) and vector files (e.g. walking network) to give a specific point of interest's PTAL score.
- 3.5 TfL's online GIS-based PTAL tool was used as a basis to research the application site's PTAL score. The results indicate that the application site has a PTAL score of 2 which is a 'poor' accessibility rating as defined by TfL.
- 3.6 The full PTAL output file is presented in Appendix C.
- 3.7 Table 1 shows the four London bus routes that can be accessed within a 640m PTAL prescribed walking distance from the site. Refer to Figure 2.

Table 1. Local Bus Services

Bus	Route	Operator	Frequency (vph)	Nearest bus stop	Distance (m)
123	Ilford - Gants Hill - Southend Road - Forest Road - Tottenham Hale - Tottenham - Turnpike Lane Station - Wood Green Station	Arriva London	5.5	Forest Road/ Castleton Road	13
20	Debden - Loughton - Woodford Green - Whipps Cross - Leyton Green - Walthamstow	London General	4	Waterworks Corner (South Side)	450
275	Barkingside Tesco - Woodford Bridge - Woodford - Hale End - Walthamstow St James Street Station	Stagecoach London	5	Hale End Road/ Forest Road	460
230	Upper Walthamstow - Leyton Green - Walthamstow - Tottenham Hale - Philip Lane - Wood Green Station	Arriva London	5	Upper Walthamstow Stand	630

Source: TfL

- 3.8 Wood Street Station is within around 900 metres of the site and is served by London Overground services on the Chingford Branch Line of the Lea Valley Lines network. There is an off-peak weekday service of four trains per hour in each direction between Liverpool Street and Chingford. Refer to Figure 2 for the location of Wood Street Station in the context of the site.

### Walking & Cycle Accessibility

- 3.9 LB Waltham Forest is a 'mini-hollands' Borough. In 2013, Waltham Forest was one of just three boroughs selected to share funding from TfL and the Mayor of London to upgrade streets and the road network to help tackle key issues surrounding road safety, air quality and public health. "Mini-Holland" is one of many projects which have been underway since 2013 to make Waltham Forest safer for walking and cycling and is made up of a total of 13 schemes.
- 3.10 TfL publishes cycling guides; there are 14 guides in total covering the whole of London. All of the cycle routes presented in the guides have been ridden and recommended by cyclists.

3.11 TfL's Local Cycling Guides 4 and 5 cover Hylands Road and the surrounding area. Within each guide, cycle routes are categorised as follows:

- Yellow – routes on quieter roads recommended by cyclists
- Blue – routes signed for cyclists that may be on busier roads
- Brown – provision for cyclists adjacent to busy roads
- Light Green – routes through parks for walking
- Green – routes on canal towpaths for walking and cycling

3.12 A review of TfL's Cycle Guides 4 and 5 demonstrates that the site is well served by 'yellow' and 'blue' (refer to paragraph 3.11) cycle routes as defined by TfL. Forest Road to the north is a blue route, and Winsbeach Road to the west is a yellow route leading towards Wood Street Station.

#### **Site Access**

3.13 The site is accessed from Hylands Road which leads on from Fernhill Court. The site can also be accessed by a footpath leading from A503 Forest Road. Refer to Figure 1.

3.14 There is a left-turn ban for vehicle traffic at the A503 Forest Road junction with Fernhill Court which operates Monday to Friday from 0730-0930. The roads off of the A503 Forest Road including Fernhill Court and Hylands Road are subject to a 20 mph speed limit. The site falls within the Council's controlled parking zone (CPZ) 'WSE' which operates Monday to Friday from 1000-1600.

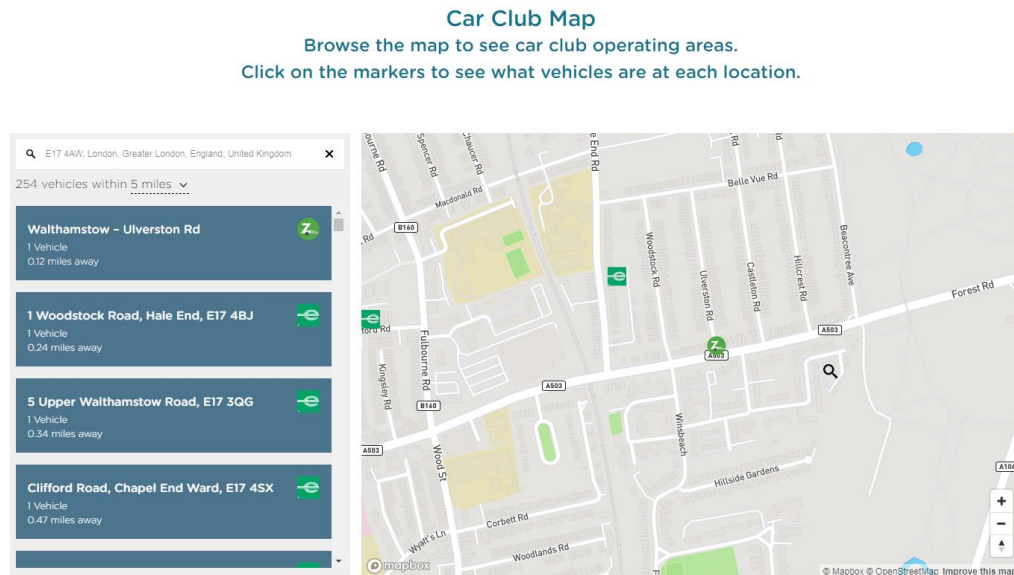
3.15 Neighbouring the site there is a green area containing allotments and part of Epping Forest extends to the east of the site.

3.16 The amenities in proximity of the site include a retail park, schools, a library, Council buildings, shops, and a petrol station.

3.17 The site is within 1 kilometre of the 'Waterworks Corner' junction of the North Circular Road.



- 3.18 There are two car club vehicles in proximity to the site. One is a Zipcar vehicle on Ulverston Road close to the junction with Forest Road. There is also an Enterprise car club vehicle on Woodstock Road close to the junction with Forest Road. Refer to the below map extract from the Como UK website:



Source: Como UK

- 3.19 As well as fixed bay car club services, Zipcar now offers the 'Zipzone' which is where members can pick up and drop off 'Flex' vehicles. Waltham Forest is a Borough within which Zipcar offers a Flex service.
- 3.20 In summary the site benefits from a good level of accessibility to sustainable transport modes, these provide a frequent service and are well linked.

## 4.0 TRAVEL MODE PROJECTIONS

- 4.1 TfL's Travel Planning Guidance states that baseline travel data should be included at the framework stage, based on travel survey data (if there are existing site users) or based on the transport assessment, comparator data drawn from TRICS (Trip Rate Information Computer System), or census data.
- 4.2 Census data (2011) for main method for travel to work has been obtained for the Middle Layer Super Output Area of Waltham Forest 013, in which the site is located. The Census data provides a site specific basis for the assessment of future travel patterns of the residents of the proposed new dwellings.
- 4.3 Table 2 sets out the method of travel to work for the resident population of the Middle Layer Super Output Area of Waltham Forest 013 adjoining the site, people not in employment or who work at or from home have been excluded from the calculations. In addition, owing to the permit-free and Blue Badge only parking provision nature of the proposed development and the fact that car travel will extremely restricted for the overriding majority of future residents, Table 2 sets out the method of travel to work excluding the car driver or car passenger mode of travel.

Table 2. Method of Travel to Work; Resident Population

Method of Travel to Work - msoa2011:E02000907 : Waltham Forest 013	Raw Data	
	Existing Modal Split	Anticipated Modal Split
All categories: Method of travel to work	100%	100%
Underground, metro, light rail, tram	33%	44%
Train	14%	18%
Bus, minibus or coach	14%	19%
Taxi	1%	1%
Motorcycle, scooter or moped	1%	1%
Driving a car or van	23%	-
Passenger in a car or van	2%	-
Bicycle	3%	4%
On foot	9%	12%
Other method of travel to work	1%	1%

- 4.4 The proposals comprise of 120 residential flats of 100% 'Social Rent' tenure. For the C3 'Dwelling houses' land use, multi-modal surveys within the 03-Residential, D – Affordable/Local Authority Flats TRICS dataset have been examined.
- 4.5 The trip generation results are based on trip rates from three sites within the database which are comparable to the proposed development. For the purpose of the assessment, the total all mode trips generated by the TRICS assessment have been extracted, and these trips are distributed by mode, based on the 2011 Travel to Work Census data for the Middle Layer Super Output Area of Waltham Forest 013, in which the site is located.
- 4.6 Morning, evening and daily (0800-0900, 1700-1800, and 0700-1900 respectively) person trip rates per unit and resultant trip rates for the proposed 120 dwellings are presented in the trip generation calculation information attached as Appendix D of this report. Table 3 below presents the potential trips for the residential element of the development, by mode of travel.

Table 3. TRICS Residential Trip Generation Projections by Mode

Mode of Travel	Adjusted Modal Split	AM Peak 0800-0900		PM Peak 1700-1800		Daily 0700-1900	
		Arr	Dep	Arr	Dep	Arr	Dep
Underground	44%	6	55	20	12	166	193
Train	18%	3	23	9	5	69	81
Bus, minibus, coach	19%	3	24	9	5	73	86
Taxi	1%	0	1	0	0	3	4
Motorcycle or scooter	1%	0	1	0	0	3	4
Driving a car or a van	-	-	-	-	-	-	-
Pass. in a car or a van	-	-	-	-	-	-	-
Bicycle	4%	1	5	2	1	14	17
On-foot	12%	2	16	6	3	47	55
Other	1%	0	1	1	0	4	5
Total	100%	14	126	47	27	380	444

- 4.7 The table above indicates that the proposed 120 residential units are expected to generate 824 total all modal two-way person trips over the course of a typical weekday as derived from the TRICS database. As is shown the majority

of the trips generated by the development (668 total two-way person trips daily) are expected to be undertaken by public transport. A total of 31 total two-way daily cycling trips are anticipated as well as 102 total two-way daily trips made solely on-foot.

- 4.8 The development provides nine Blue Badge parking bays therefore there may be a small number of car driver and passenger trips generated by this aspect of the proposal however the overall proportion will be extremely limited.
- 4.9 As discussed the application site has a PTAL score of 2. There are four different bus routes with high daily service frequencies operating from bus stops within a reasonable walking distance of the site. Wood Street Rail Station is also within a reasonable walking distance of the site and provides access to London Overground Services. In addition the pedestrian and cycling environment and infrastructure surrounding the site is of good quality.
- 4.10 In summary the traffic impact of the development is expected to be adequately accommodated on the adjoining highway and within the extant available capacity on existing public transport infrastructure adjoining the site.
- 4.11 Initial framework Travel Plans targets, based on the TRICS and census data contained herein, are set out later in this report in accordance with TfL's Travel Planning Guidance.

## 5.0 TRAVEL PLAN OBJECTIVES, MANAGEMENT & MEASURES

### Objectives

- 5.1 The chief aim of this TP is to achieve minimal/zero use of the private car, especially single occupancy vehicle (SOV) trips, to and from the site by residents, and to an extent visitors, during the lifetime of the plan.
- 5.2 The nature of the development being parking 'permit-free' with limited on-site Blue Badge parking provision, along with the census data detailed in the preceding chapter of this report demonstrates that future residents are expected to travel sustainably on a daily basis.
- 5.3 Resultantly the secondary TP objective will be to encourage people to walk or cycle as their main mode of travel, thus easing any potential added pressure of the development on the adjoining public transport network.
- 5.4 The TP objectives will primarily be achieved by promoting and educating the health, social, economical and environmental benefits of sustainable and active travel choices from the outset of the development being brought into use. The Travel Plan would be submitted to and approved by the local planning authority prior to first occupation of the site.
- 5.5 As part of this aim, the developer will endeavour to reduce any small number of journeys to and from the site by residents by private car, and increase journeys made on foot/by bicycle, by target percentages during the lifetime of the TP.
- 5.6 The TP would be implemented in consultation with Waltham Forest Council's Travel Plan Officer.
- 5.7 The final travel mode shift targets would be set once the post occupancy resident travel surveys have been reviewed and achievable mode shift targets can then be decided. This would also be done in consultation with the Travel Plan Officer.

## Management

- 5.8 The proposals contained in the TP will be promoted by the management of the proposed development site, through the appointment of a Travel Plan Coordinator (TPC).
- 5.9 For the purpose of this framework TP it is assumed that Paul Mew Associates would initially assume the role of TPC for the development under the instruction of the developer. The contact details of the project advisor at Paul Mew Associates will be as follows:
- Email – paul.mew@pma-traffic.co.uk
  - Web – www.pma-traffic.co.uk
  - Phone – 020 8780 0426
- 5.10 The responsibility of the TPC will be to encourage and promote the proposed measures of the plan amongst future residents.
- 5.11 The developer will formally instruct the initial TPC role within three months of the expected final occupation date of the new residential units. The roles and responsibilities of the TPC are listed as follows:
- Developing and implementing promotional, publicity, and awareness campaigns,
  - Administering the Travel Plan Measures,
  - Organising the collection, analysis and presentation of information related to the monitoring and development of the TP,
  - Liaising with the developer and the key site management personnel,
  - Liaising with the Local Planning Authority on TP progress and development, and
  - Acting as a point of contact for all residents requiring information.

- 5.12 In addition, the TPC will carry out regular monitoring of the plan through resident questionnaires and traffic surveys, and the associated reporting of the findings back to the local planning authority. This would form part of the Final Travel Plan, and the subsequent TP reviews.

### **Travel Plan Measures**

- 5.13 There are a number of ways in which this TP will set out to encourage residents to travel sustainably and to subsequently discourage the use of the private car as a main mode of travel.
- 5.14 The TP measures can be split into two categories, 'hard' and 'soft' measures. Hard measures include those include those design features that will physically assist in reducing the traffic impact of a scheme, whereas soft measures include the management, marketing and promotional measures which are designed to influence peoples travel choices.

### ***Hard Measures***

- 5.15 The hard measures that are to be implemented as part of the Hyland Road development scheme include restraint based approach to car parking, providing essential Blue Badge parking only.
- 5.16 All of the on-site parking bays will be provided with the underlying infrastructure for electric vehicle (EV) charging facilities and 20% of the spaces will be provided with an 'active' EV charge point at the outset in accordance with the emerging new London Plan (July 2019).
- 5.17 Future occupiers will also be prohibited from purchasing residents parking permits for the adjoining CPZ. This will be secured through a S106 legal agreement as part of any future planning permission.

- 5.18 Improvements to the street scene and public realm on Hyland Road and Forest Road will be implemented by the developer as part of funded S278 Highways Works.
- 5.19 The development will provide secure and sheltered on-site cycle parking facilities for each residential unit in accordance with the Council's minimum policy requirements. Additional short-stay visitor cycle parking will be provided in accordance with the requirements set out in the emerging new London Plan. The cycle parking will be provided in easily accessible cycle stores at ground floor level as shown in the proposed site plan in Appendix B. Residents will be made aware of the availability and location of cycle parking within and around the development upon occupation.
- 5.20 In addition, each new dwelling will be provided with 2 years free Zipcar membership and £50 free drive time credit as well as bespoke marketing materials in order to maximise the uptake of the car club from the outset of the development being occupied.
- 5.21 There nearest fixed bay Zipcar vehicle is on Ulverston Road close to the junction with Forest Road which is within a short walking distance from the site for future residents. In addition Waltham Forest is a Borough within which Zipcar offers a Flex service and therefore there are likely to be additional car club vehicles in the local area which could be readily available for future residents.
- 5.22 Refer to Appendix E for Zipcar Car Club's proposal document for the site and COMO car club research paper for information.

### *Soft Measures*

- 5.22 Promotion of the TP will be by means of travel information and initiatives being displayed to all residents. The first task of the TPC will be to ensure that 'travel information welcome leaflets' are produced and distributed as part of packs made available upon renting the residential units. Promotion of public and



sustainable transport at this early stage will be crucial in influencing peoples travel behaviour at the outset of the development being occupied.

5.23 This information will include the following:

- Details of all local public transport services including the location of the nearest service access points, timetable information and route maps.
- The location of nearby Oyster top-up facilities.
- Links to the TfL website and TfL's journey planner.
- The location of on-site cycle parking facilities and a copy of TfL's Local Cycling Guide 6.
- Pedestrian facilities and the walk routes from the site to nearby public transport access points and places of interest / local amenities.
- Promotion of car sharing by residents will be encouraged by signing up to the London Liftshare scheme.
- Promotion of car club use with financial incentives made available including 2 years free membership and free driving time with Zipcar.
- Offer of personalised journey planning to residents through the TPC, contact details will be provided for residents to get in contact about this service.

5.24 It will be the duty of the TPC to make this information available to each residential unit upon occupation.

5.25 In addition to the above, TP promotional posters will be displayed in all communal areas of the residential dwellings, such as in the foyer / lobby of apartment blocks.

5.26 The posters will include the same level of information that will be contained in the individual booklets – public transport maps, timetables and access points,

cycle parking facilities and route maps, car share and car club facilities, and walking routes to nearby destinations.

- 5.27 It will also be the duty of the TPC to ensure that the travel plan posters are displayed correctly and kept up-to-date.

### **Remedial Measures**

- 5.28 If the TP modal shift / SOV reduction targets are not being met, there will be an organisational commitment to increase investment in the TP by an amount agreed with the Council in prior correspondence.

- 5.29 Improvement of an underperforming TP could be made with some of the following measures:

- Renewed offer of personal travel planning for residents through the TPC role.
- Provide residents with additional free annual membership and drive time to Zipcar Car Club.
- Increase the level of on-site cycle parking spaces or visitor cycle parking spaces, subject to a review of the usage of the current stock at the time.
- Increase the number of EV charge points on the site subject to demand.

## 6.0 TARGETS, MONITORING & REVIEW

### Targets (Framework)

6.1 The full TP modal shift targets would be formulated once data from the post occupancy baseline travel mode survey has been analysed. These would be agreed between the TPC and the Council's Travel Plan Officer. The targets would be SMART (specific, measurable, achievable, realistic and time-bound).

- Specific – the targets will aim to specifically (not exclusively) promote walking and cycling. Those that can combine public transport travel will be actively encouraged. The targets will be set by using the results of the initial travel mode survey.
- Measurable – the targets would be measurable, based on the results of the initial post-development travel mode survey and review surveys to be performed at key intervals during the course of the Travel Plan lifespan.
- Achievable and realistic – the targets would be achievable and not overbearing, again based upon the results of the travel mode surveys.
- Time-bound – the travel plan will have a five year timeframe, with surveys and targets required at yearly intervals and a full review every three years. Thereafter the site will continue to observe the general aims and objectives of the Travel Plan.

6.2 In accordance with TfL guidance it is the purpose of the framework TP to present initial targets based on travel mode projections for the development; in this case we have assessed the baseline on TRICS and census data as set out in Chapter 4.

6.3 The framework TP targets are set out as follows:

- To achieve <1% modal share of private car trips by residents at baseline and at years 1, 3 and 5 years post-occupation of the new dwellings,
- To increase the number of residents walking as their main mode of travel by 5% within 1 year of occupation, by 3% by year 3, and 2% by year 5,
- To increase the number of residents cycling as their main mode of travel by 10% within 1 year of occupation, by 3% by year 3, and 2% by year 5.

6.4 The monitoring strategy to review whether targets are being met, and whether the proposed measures are effective, is set out in the following section.

### **Monitoring**

6.5 The TP will be continually monitored through residents travel surveys. A TRICS SAM compliant post occupancy baseline travel mode survey would be carried out when the development is 75% occupied. The survey would be organised and carried out by the TPC with the full support of the site's management.

6.6 It would also be the responsibility of the TPC to collate and send the results of the post occupancy baseline survey to the Council for review as part of the final TP, and to discuss and agree future SMART modal shift targets with the Council's Travel Plan Officer.

6.7 Thereafter at years 1, 3 and 5 post-occupation and at the developer's expense, a Travel Plan Monitoring Report inclusive of new TRICS SAM survey data will be submitted to the Council. The Monitoring Reports will form the basis of the TP's review.

6.8 The Monitoring Report shall contain information detailing how the measures have been implemented, comments on whether or not the agreed targets are being met, relevant recommendations on improvements and copies of all literature produced prior to the date of the report designed to encourage residents to travel to and from the site using walking and cycling as a means of travel and / or public transport.

## 7.0 ACTION PLAN

7.1 The programme for the implementation of the TP measures, as and when they are required for the development, is set out in the action plan.

7.2 The action plan for the development sets out tasks, intended implementation dates and funding sources. It is intended to be a live document which will be updated by the TPC to reflect the outcome of consultation with the local planning authority, once the first full multi-modal travel survey has been completed.

Table 4. Travel Plan Action Plan

Action	Target	Date	Funding	Indicator	Responsibility
Appointment of the Travel Plan Coordinator (TPC)	N/A	3 months prior to first occupation	The developer	Appointment of instruction sent to Travel Plan Coordinator	The developer
Provision of 'hard' engineering measures (car, EV, and cycle parking etc)	Car, EV, and cycle parking spaces to be provided in accordance with the approved planning application	Prior to occupation of the residential dwellings	The developer	Completion of car and cycle parking	The developer
Production of 'Travel Information Pack' leaflets and Travel Plan promotional posters	Issue of welcome pack to every residential unit, and display of posters	Upon occupation of each dwelling	The developer	Booklets to be posted to each individual flat, and display of posters. Email of confirmation sent to Waltham Forest Council	TPC
Provide all dwellings with 2 years free membership and £50 driving credit to Zipcar Car Club	Issue of Zipcar Car Club welcome pack to every residential unit, and display of promotion on posters	Upon occupation of each dwelling	The developer	Offer to be provided to each individual flat, and display of posters. Email of confirmation sent to Waltham Forest Council	TPC
Undertake the TRICS SAM compliant post-occupation travel survey	N/A	At 75% occupancy	The developer	Receipt of survey results	TPC
Submit Final Travel Plan for approval to the local Council	N/A	Within 2 months of completion of the post-occupancy	The developer	Email correspondence with the Borough's Travel Plan Officer	TPC

		travel survey			
Agree SMART targets for modal shift	Target subject to negotiations with the Council	1 month after Final Travel Plan submitted	N/A	Receipt of written agreement of targets	TPC
Undertake 1st yearly TP review including a new TRICS SAM survey	To analyse the effectiveness of marketing, measurements and targets	12-15 months from occupation	The developer	Receipt of survey results	TPC
Undertake 3 <sup>rd</sup> yearly TP review including a new TRICS SAM survey	To analyse the effectiveness of marketing, measurements and targets	3 years from occupation	The developer	Receipt of survey results	TPC
Undertake 5 <sup>th</sup> yearly TP review including a new TRICS SAM survey	To analyse the effectiveness of marketing, measurements and targets	5 years from occupation	The developer	Receipt of survey results	TPC
Achieve SMART travel mode split targets	Achieve agreed target values	5 years after post-occupancy travel survey completed	The developer	Multi-modal resident travel surveys conducted in years 1, 3, and 5 after the baseline survey	TPC

Source: PMA

7.3 The developer will set aside funding for the TP. A budget will be agreed to undertake the TPC role prior to occupation of the new units. The budget, to be agreed by the developer and the company responsible for undertaking the initial TPC roles and responsibilities, will include the following items:

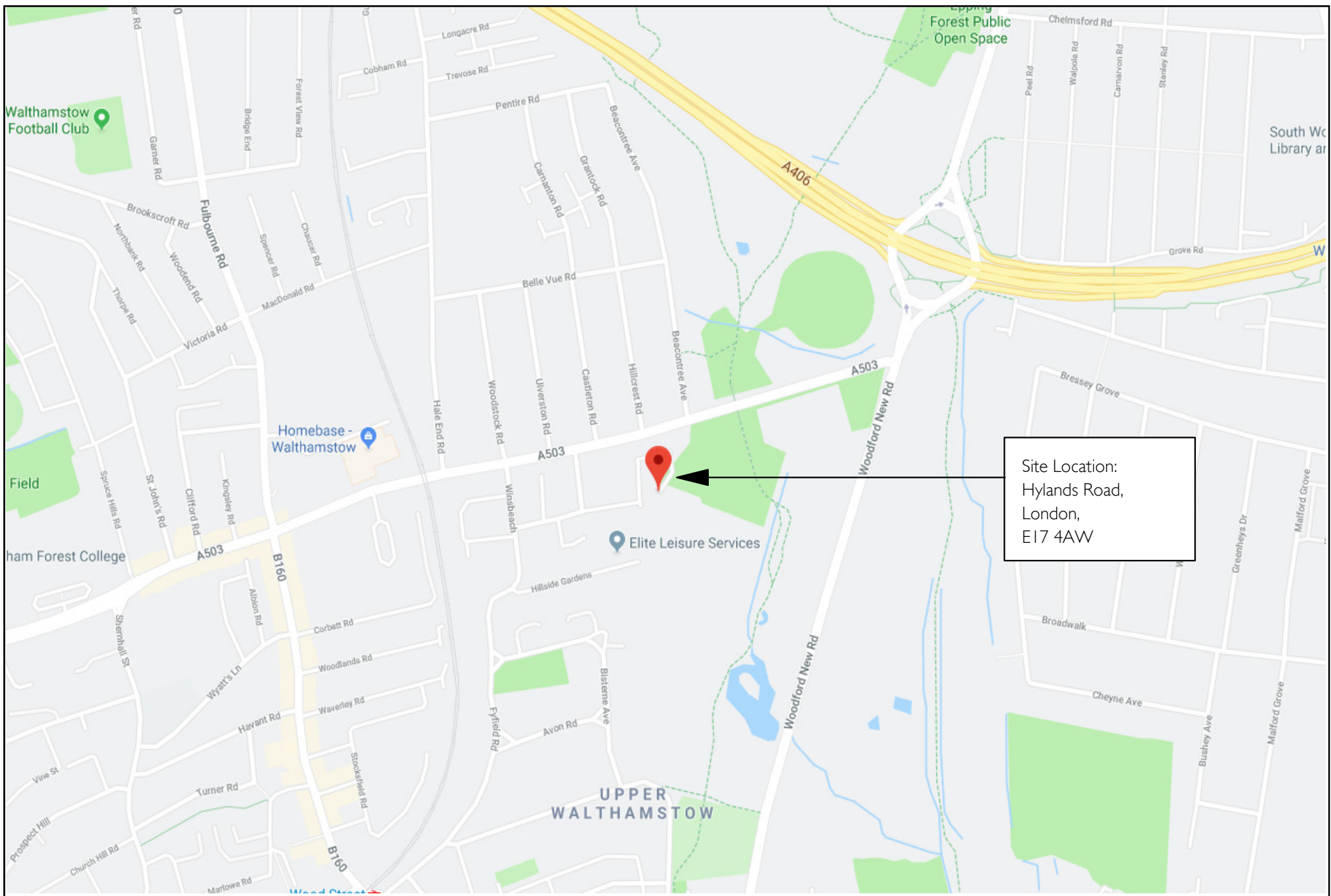
- Fund the TPC role,
- The TPC budget will include the preparation and distribution of Travel Information Pack booklets for each residential unit upon occupation of the new premises,
- Fund other marketing and promotional measures such as car club provision, informative TP posters displayed in communal areas,
- The TPC budget will also include the preparation and collation of TRICS SAM compliant post-occupancy travel survey information and the associated reporting back to the local Council, and
- Thereafter funding will be made available for full TP reviews at years 1, 3, and 5 after submission of the Final Travel Plan.

## 8.0 SUMMARY

- 8.1 To summarise, the scheme comprises the development of the site at Hylands Road, London to provide a scheme of 120 100% 'Social Rent' tenure dwellings.
- 8.2 The site is within the London Borough of Waltham Forest.
- 8.3 The developer is committed to reducing the traffic impact of the proposed development through the implementation of a TP. The TP will be secured through a S106 legal agreement.
- 8.4 The site is situated within an area where public transport and sustainable transport links are readily accessible. These links will be heavily promoted as part of the TP.
- 8.5 Thorough and regular monitoring of the TP will identify targets and assess to what extent they are being reached over the life of the scheme. The reporting of the progress will be carried out in consultation with the Council's Travel Plan Officer.
- 8.6 It is the aim of this outline TP to influence residents' travel behaviour upon occupation of the scheme.
- 8.7 The operations contained herein will be implemented prior to first occupation of the new dwellings.

## FIGURES





Site Location:  
Hylands Road,  
London,  
E17 4AW

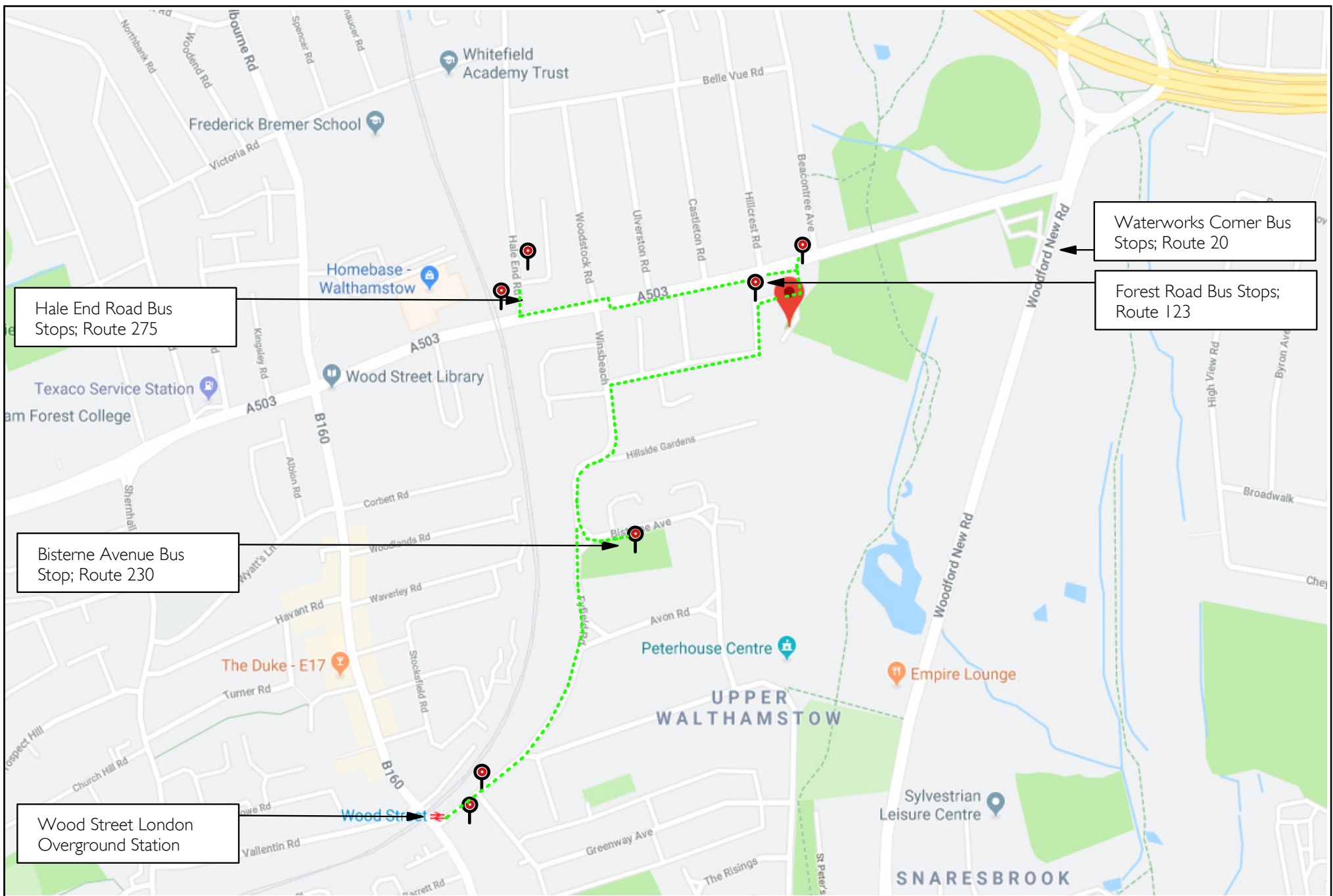
Date: 29-July-2019  
Scale: NTS  
Source: Google Maps  
Drawing No: P2147/TP/01



P2147: Hylands Road, Waltham Forest, E17 4AW  
Figure 1  
Site Location



PAUL MEW ASSOCIATES  
TRAFFIC CONSULTANTS



Date: 29-July-2019  
 Scale: NTS  
 Source: Google Maps  
 Drawing No: P2147/TP/02



P2147: Hylands Road, Waltham Forest, E17 4AW

Figure 2.  
 Public Transport Accessibility Map



PAUL MEW ASSOCIATES  
 TRAFFIC CONSULTANTS

## APPENDIX A

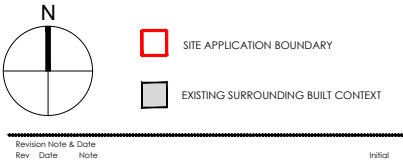
### Existing Site Plan



This drawing and the design are the copyright of **ON Architecture Ltd** only.  
This drawing should not be copied or reproduced without written consent.  
All dimensions are to be checked on site prior to fabrication and **ON Architecture Ltd** should be notified of any discrepancy prior to proceeding further.  
Do not scale from this drawing, only the illustrated dimensions are to be used.  
Illustrated information from 3rd party consultants/specialists is shown as indicatively only. See other consultant / specialist drawings for full information and detail.



Ordnance Survey, (c) Crown Copyright 2019. All rights reserved. Licence number 100022432



**ON**  
**ARCH**  
**TECT**  
**URE**

Canterbury Studio  
Logan House, St Andrews Close  
Canterbury,  
CT1 2RP  
info@onarchitecture.co.uk  
onarchitecture.co.uk  
01227 634334

INCORPORATING  
design  
**bdb**  
London Studio  
5 Gossamer Gardens  
Hackney Road,  
London,  
E2 9FN

Project Title  
**HYLANDS ROAD**  
**WHALHAMSTOW**  
Clients Details  
**SIXTY BRICKS LTD**

Drawing Title  
**Site Location plan**

BIM Number  
**188-ONA-XX-00-DR-A-000-001-S2-P00**  
Scale Date Drawn Checked  
1:1250 @A1 23-07-2019 MM NL

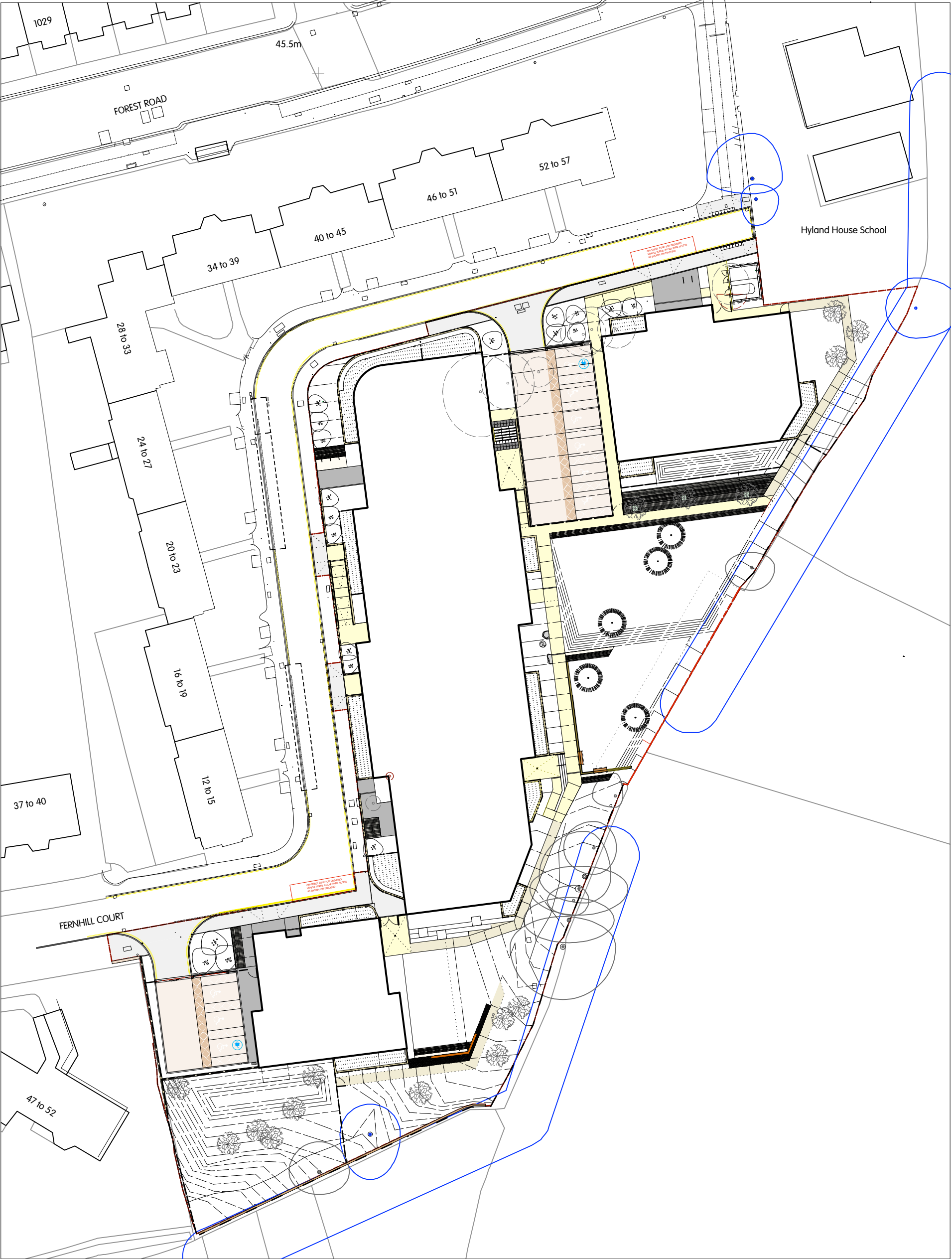
Drawing Status  
**Planning**

Project Number Drawing Number Drawing Revision  
**PR188 001.000 00**

## APPENDIX B

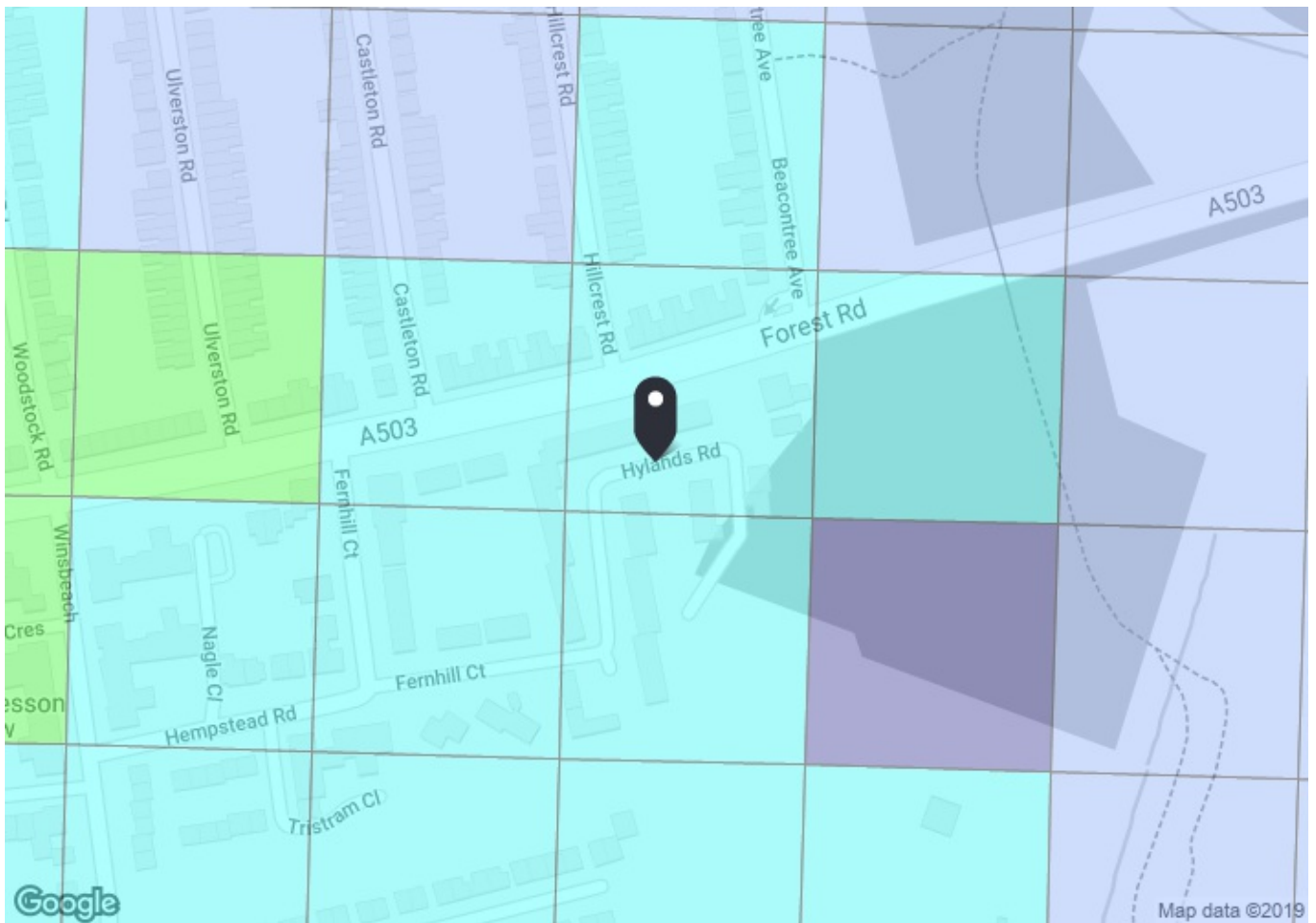
### Proposed Site Plan (Hard Landscaped)





## APPENDIX C

### TfL PTAL Output File



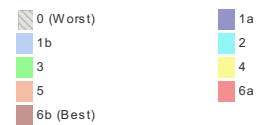
### PTAL output for Base Year 2

46 Hylands Rd, Walthamstow London E17 4AJ, UK  
Easting: 538934, Northing: 190115

Grid Cell: 132346

Report generated: 29/07/2019

### Map key - PTAL



### Map layers

 PTAL (cell size: 100m)

### 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



Calculation data

Mode	Stop	Route	Distance (metres)	Frequency(vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	AI
Bus	FOREST ROAD CASTLETON RD	123	12.99	5.5	0.16	7.45	7.62	3.94	1	3.94
Bus	WATERWORKS CNR STH SIDE	20	452.91	4	5.66	9.5	15.16	1.98	0.5	0.99
Bus	HALE END ROAD FOREST RD	275	464.9	5	5.81	8	13.81	2.17	0.5	1.09
Bus	UPPER WALTHAMSTOW STAND	230	632.46	5	7.91	8	15.91	1.89	0.5	0.94
Total Grid Cell AI:										6.96

## APPENDIX D

### TRICS Trip Generation Assessment; Proposed Site Use

Calculation Reference: AUDIT-711001-190711-0746

## TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

01	GREATER LONDON	
BT	BRENT	1 days
HA	HARROW	1 days
HG	HARINGEY	1 days

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

## Secondary 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: Number of dwellings  
 Actual Range: 88 to 160 (units: )  
 Range Selected by User: 15 to 339 (units: )

Parking Spaces Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/11 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	2 days
Friday	1 days

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

Selected survey types:

Manual count	3 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2
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	3
------------------	---

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

## Secondary Filtering selection:

Use Class:

C3	3 days
----	--------

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

Secondary Filtering selection (Cont.):

Population within 1 mile:

25,001 to 50,000	1 days
50,001 to 100,000	2 days

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

Population within 5 miles:

500,001 or More	3 days
-----------------	--------

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

Car ownership within 5 miles:

0.6 to 1.0	3 days
------------	--------

*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	2 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:

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	BT-03-D-01 FLOWERS CLOSE DOLLIS HILL	BLOCKS OF FLATS	BRENT
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 160 <i>Survey date: THURSDAY 26/06/14</i> <i>Survey Type: MANUAL</i>		
2	HA-03-D-01 THE MALL KINGSBURY KINGSBURY CIRCLE	BLOCKS OF FLATS	HARROW
	Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total Number of dwellings: 88 <i>Survey date: THURSDAY 17/07/14</i> <i>Survey Type: MANUAL</i>		
3	HG-03-D-03 COMMERCE ROAD WOOD GREEN WOODSIDE PARK	BLOCKS OF FLATS	HARINGEY
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 90 <i>Survey date: FRIDAY 26/09/14</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.*

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
IS-03-D-02	PTAL 5
IS-03-D-03	PTAL 6a
IS-03-D-04	PTAL 5

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

MULTI-MODAL 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	3	113	0.044	3	113	0.077	3	113	0.121
08:00 - 09:00	3	113	0.071	3	113	0.207	3	113	0.278
09:00 - 10:00	3	113	0.071	3	113	0.086	3	113	0.157
10:00 - 11:00	3	113	0.080	3	113	0.098	3	113	0.178
11:00 - 12:00	3	113	0.077	3	113	0.074	3	113	0.151
12:00 - 13:00	3	113	0.074	3	113	0.092	3	113	0.166
13:00 - 14:00	3	113	0.044	3	113	0.050	3	113	0.094
14:00 - 15:00	3	113	0.059	3	113	0.065	3	113	0.124
15:00 - 16:00	3	113	0.121	3	113	0.107	3	113	0.228
16:00 - 17:00	3	113	0.089	3	113	0.080	3	113	0.169
17:00 - 18:00	3	113	0.077	3	113	0.053	3	113	0.130
18:00 - 19:00	3	113	0.080	3	113	0.065	3	113	0.145
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.887			1.054			1.941

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.

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

#### Parameter summary

Trip rate parameter range selected:	88 - 160 (units: )
Survey date date range:	01/01/11 - 27/06/16
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	3

*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 TAXIS

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	3	113	0.003	3	113	0.003	3	113	0.006
08:00 - 09:00	3	113	0.006	3	113	0.009	3	113	0.015
09:00 - 10:00	3	113	0.000	3	113	0.000	3	113	0.000
10:00 - 11:00	3	113	0.003	3	113	0.003	3	113	0.006
11:00 - 12:00	3	113	0.000	3	113	0.000	3	113	0.000
12:00 - 13:00	3	113	0.003	3	113	0.003	3	113	0.006
13:00 - 14:00	3	113	0.000	3	113	0.000	3	113	0.000
14:00 - 15:00	3	113	0.000	3	113	0.000	3	113	0.000
15:00 - 16:00	3	113	0.009	3	113	0.009	3	113	0.018
16:00 - 17:00	3	113	0.003	3	113	0.003	3	113	0.006
17:00 - 18:00	3	113	0.003	3	113	0.000	3	113	0.003
18:00 - 19:00	3	113	0.006	3	113	0.009	3	113	0.015
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.036			0.039			0.075

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/D - AFFORDABLE/LOCAL AUTHORITY FLATS

MULTI-MODAL OGVS

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	3	113	0.000	3	113	0.000	3	113	0.000
08:00 - 09:00	3	113	0.000	3	113	0.000	3	113	0.000
09:00 - 10:00	3	113	0.003	3	113	0.003	3	113	0.006
10:00 - 11:00	3	113	0.006	3	113	0.003	3	113	0.009
11:00 - 12:00	3	113	0.000	3	113	0.003	3	113	0.003
12:00 - 13:00	3	113	0.003	3	113	0.003	3	113	0.006
13:00 - 14:00	3	113	0.003	3	113	0.003	3	113	0.006
14:00 - 15:00	3	113	0.000	3	113	0.000	3	113	0.000
15:00 - 16:00	3	113	0.003	3	113	0.003	3	113	0.006
16:00 - 17:00	3	113	0.000	3	113	0.000	3	113	0.000
17:00 - 18:00	3	113	0.000	3	113	0.000	3	113	0.000
18:00 - 19:00	3	113	0.000	3	113	0.000	3	113	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.018			0.018			0.036

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/D - AFFORDABLE/LOCAL AUTHORITY FLATS

MULTI-MODAL PSVS

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	3	113	0.003	3	113	0.000	3	113	0.003
08:00 - 09:00	3	113	0.003	3	113	0.006	3	113	0.009
09:00 - 10:00	3	113	0.000	3	113	0.000	3	113	0.000
10:00 - 11:00	3	113	0.000	3	113	0.000	3	113	0.000
11:00 - 12:00	3	113	0.000	3	113	0.000	3	113	0.000
12:00 - 13:00	3	113	0.000	3	113	0.000	3	113	0.000
13:00 - 14:00	3	113	0.000	3	113	0.000	3	113	0.000
14:00 - 15:00	3	113	0.000	3	113	0.000	3	113	0.000
15:00 - 16:00	3	113	0.003	3	113	0.000	3	113	0.003
16:00 - 17:00	3	113	0.000	3	113	0.003	3	113	0.003
17:00 - 18:00	3	113	0.000	3	113	0.000	3	113	0.000
18:00 - 19:00	3	113	0.000	3	113	0.000	3	113	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.009			0.009			0.018

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/D - AFFORDABLE/LOCAL AUTHORITY FLATS

MULTI-MODAL CYCLISTS

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	3	113	0.000	3	113	0.006	3	113	0.006
08:00 - 09:00	3	113	0.000	3	113	0.006	3	113	0.006
09:00 - 10:00	3	113	0.000	3	113	0.006	3	113	0.006
10:00 - 11:00	3	113	0.003	3	113	0.006	3	113	0.009
11:00 - 12:00	3	113	0.003	3	113	0.003	3	113	0.006
12:00 - 13:00	3	113	0.000	3	113	0.006	3	113	0.006
13:00 - 14:00	3	113	0.003	3	113	0.000	3	113	0.003
14:00 - 15:00	3	113	0.009	3	113	0.009	3	113	0.018
15:00 - 16:00	3	113	0.006	3	113	0.009	3	113	0.015
16:00 - 17:00	3	113	0.009	3	113	0.015	3	113	0.024
17:00 - 18:00	3	113	0.009	3	113	0.009	3	113	0.018
18:00 - 19:00	3	113	0.012	3	113	0.000	3	113	0.012
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.054			0.075			0.129

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/D - AFFORDABLE/LOCAL AUTHORITY FLATS

MULTI-MODAL VEHICLE OCCUPANTS

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	3	113	0.044	3	113	0.086	3	113	0.130
08:00 - 09:00	3	113	0.077	3	113	0.462	3	113	0.539
09:00 - 10:00	3	113	0.086	3	113	0.124	3	113	0.210
10:00 - 11:00	3	113	0.077	3	113	0.109	3	113	0.186
11:00 - 12:00	3	113	0.086	3	113	0.098	3	113	0.184
12:00 - 13:00	3	113	0.098	3	113	0.109	3	113	0.207
13:00 - 14:00	3	113	0.071	3	113	0.065	3	113	0.136
14:00 - 15:00	3	113	0.068	3	113	0.083	3	113	0.151
15:00 - 16:00	3	113	0.216	3	113	0.121	3	113	0.337
16:00 - 17:00	3	113	0.189	3	113	0.109	3	113	0.298
17:00 - 18:00	3	113	0.130	3	113	0.080	3	113	0.210
18:00 - 19:00	3	113	0.130	3	113	0.095	3	113	0.225
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.272			1.541			2.813

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/D - AFFORDABLE/LOCAL AUTHORITY FLATS

MULTI-MODAL PEDESTRIANS

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	3	113	0.024	3	113	0.047	3	113	0.071
08:00 - 09:00	3	113	0.021	3	113	0.204	3	113	0.225
09:00 - 10:00	3	113	0.065	3	113	0.053	3	113	0.118
10:00 - 11:00	3	113	0.065	3	113	0.050	3	113	0.115
11:00 - 12:00	3	113	0.059	3	113	0.047	3	113	0.106
12:00 - 13:00	3	113	0.077	3	113	0.098	3	113	0.175
13:00 - 14:00	3	113	0.083	3	113	0.059	3	113	0.142
14:00 - 15:00	3	113	0.041	3	113	0.107	3	113	0.148
15:00 - 16:00	3	113	0.115	3	113	0.080	3	113	0.195
16:00 - 17:00	3	113	0.243	3	113	0.080	3	113	0.323
17:00 - 18:00	3	113	0.127	3	113	0.080	3	113	0.207
18:00 - 19:00	3	113	0.115	3	113	0.056	3	113	0.171
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.035			0.961			1.996

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/D - AFFORDABLE/LOCAL AUTHORITY FLATS

MULTI-MODAL BUS/TRAM PASSENGERS

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	3	113	0.006	3	113	0.195	3	113	0.201
08:00 - 09:00	3	113	0.021	3	113	0.249	3	113	0.270
09:00 - 10:00	3	113	0.036	3	113	0.006	3	113	0.042
10:00 - 11:00	3	113	0.027	3	113	0.027	3	113	0.054
11:00 - 12:00	3	113	0.030	3	113	0.041	3	113	0.071
12:00 - 13:00	3	113	0.018	3	113	0.047	3	113	0.065
13:00 - 14:00	3	113	0.024	3	113	0.030	3	113	0.054
14:00 - 15:00	3	113	0.038	3	113	0.077	3	113	0.115
15:00 - 16:00	3	113	0.115	3	113	0.038	3	113	0.153
16:00 - 17:00	3	113	0.175	3	113	0.021	3	113	0.196
17:00 - 18:00	3	113	0.095	3	113	0.047	3	113	0.142
18:00 - 19:00	3	113	0.083	3	113	0.021	3	113	0.104
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.668			0.799			1.467

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/D - AFFORDABLE/LOCAL AUTHORITY FLATS

MULTI-MODAL TOTAL RAIL PASSENGERS

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	3	113	0.003	3	113	0.080	3	113	0.083
08:00 - 09:00	3	113	0.000	3	113	0.127	3	113	0.127
09:00 - 10:00	3	113	0.000	3	113	0.018	3	113	0.018
10:00 - 11:00	3	113	0.000	3	113	0.021	3	113	0.021
11:00 - 12:00	3	113	0.003	3	113	0.012	3	113	0.015
12:00 - 13:00	3	113	0.000	3	113	0.018	3	113	0.018
13:00 - 14:00	3	113	0.006	3	113	0.006	3	113	0.012
14:00 - 15:00	3	113	0.009	3	113	0.009	3	113	0.018
15:00 - 16:00	3	113	0.015	3	113	0.012	3	113	0.027
16:00 - 17:00	3	113	0.018	3	113	0.009	3	113	0.027
17:00 - 18:00	3	113	0.033	3	113	0.009	3	113	0.042
18:00 - 19:00	3	113	0.053	3	113	0.009	3	113	0.062
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.140			0.330			0.470

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/D - AFFORDABLE/LOCAL AUTHORITY FLATS

MULTI-MODAL PUBLIC TRANSPORT USERS

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	3	113	0.009	3	113	0.275	3	113	0.284
08:00 - 09:00	3	113	0.021	3	113	0.376	3	113	0.397
09:00 - 10:00	3	113	0.036	3	113	0.024	3	113	0.060
10:00 - 11:00	3	113	0.027	3	113	0.047	3	113	0.074
11:00 - 12:00	3	113	0.033	3	113	0.053	3	113	0.086
12:00 - 13:00	3	113	0.018	3	113	0.065	3	113	0.083
13:00 - 14:00	3	113	0.030	3	113	0.036	3	113	0.066
14:00 - 15:00	3	113	0.047	3	113	0.086	3	113	0.133
15:00 - 16:00	3	113	0.130	3	113	0.050	3	113	0.180
16:00 - 17:00	3	113	0.192	3	113	0.030	3	113	0.222
17:00 - 18:00	3	113	0.127	3	113	0.056	3	113	0.183
18:00 - 19:00	3	113	0.136	3	113	0.030	3	113	0.166
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.806			1.128			1.934

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/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	3	113	0.077	3	113	0.414	3	113	0.491
08:00 - 09:00	3	113	0.118	3	113	1.047	3	113	1.165
09:00 - 10:00	3	113	0.186	3	113	0.207	3	113	0.393
10:00 - 11:00	3	113	0.172	3	113	0.213	3	113	0.385
11:00 - 12:00	3	113	0.180	3	113	0.201	3	113	0.381
12:00 - 13:00	3	113	0.192	3	113	0.278	3	113	0.470
13:00 - 14:00	3	113	0.186	3	113	0.160	3	113	0.346
14:00 - 15:00	3	113	0.166	3	113	0.284	3	113	0.450
15:00 - 16:00	3	113	0.467	3	113	0.260	3	113	0.727
16:00 - 17:00	3	113	0.633	3	113	0.234	3	113	0.867
17:00 - 18:00	3	113	0.393	3	113	0.225	3	113	0.618
18:00 - 19:00	3	113	0.393	3	113	0.180	3	113	0.573
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.163			3.703			6.866

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/D - AFFORDABLE/LOCAL AUTHORITY FLATS

MULTI-MODAL CARS

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	3	113	0.027	3	113	0.068	3	113	0.095
08:00 - 09:00	3	113	0.044	3	113	0.175	3	113	0.219
09:00 - 10:00	3	113	0.053	3	113	0.059	3	113	0.112
10:00 - 11:00	3	113	0.047	3	113	0.062	3	113	0.109
11:00 - 12:00	3	113	0.050	3	113	0.050	3	113	0.100
12:00 - 13:00	3	113	0.053	3	113	0.071	3	113	0.124
13:00 - 14:00	3	113	0.036	3	113	0.038	3	113	0.074
14:00 - 15:00	3	113	0.056	3	113	0.059	3	113	0.115
15:00 - 16:00	3	113	0.089	3	113	0.086	3	113	0.175
16:00 - 17:00	3	113	0.080	3	113	0.059	3	113	0.139
17:00 - 18:00	3	113	0.068	3	113	0.041	3	113	0.109
18:00 - 19:00	3	113	0.059	3	113	0.053	3	113	0.112
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.662			0.821			1.483

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/D - AFFORDABLE/LOCAL AUTHORITY FLATS

MULTI-MODAL LGVS

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	3	113	0.012	3	113	0.006	3	113	0.018
08:00 - 09:00	3	113	0.018	3	113	0.015	3	113	0.033
09:00 - 10:00	3	113	0.012	3	113	0.021	3	113	0.033
10:00 - 11:00	3	113	0.021	3	113	0.021	3	113	0.042
11:00 - 12:00	3	113	0.027	3	113	0.021	3	113	0.048
12:00 - 13:00	3	113	0.015	3	113	0.015	3	113	0.030
13:00 - 14:00	3	113	0.006	3	113	0.009	3	113	0.015
14:00 - 15:00	3	113	0.003	3	113	0.006	3	113	0.009
15:00 - 16:00	3	113	0.018	3	113	0.009	3	113	0.027
16:00 - 17:00	3	113	0.006	3	113	0.015	3	113	0.021
17:00 - 18:00	3	113	0.006	3	113	0.012	3	113	0.018
18:00 - 19:00	3	113	0.012	3	113	0.003	3	113	0.015
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.156			0.153			0.309

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/D - AFFORDABLE/LOCAL AUTHORITY FLATS

MULTI-MODAL MOTOR CYCLES

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	3	113	0.000	3	113	0.000	3	113	0.000
08:00 - 09:00	3	113	0.000	3	113	0.003	3	113	0.003
09:00 - 10:00	3	113	0.003	3	113	0.003	3	113	0.006
10:00 - 11:00	3	113	0.003	3	113	0.009	3	113	0.012
11:00 - 12:00	3	113	0.000	3	113	0.000	3	113	0.000
12:00 - 13:00	3	113	0.000	3	113	0.000	3	113	0.000
13:00 - 14:00	3	113	0.000	3	113	0.000	3	113	0.000
14:00 - 15:00	3	113	0.000	3	113	0.000	3	113	0.000
15:00 - 16:00	3	113	0.000	3	113	0.000	3	113	0.000
16:00 - 17:00	3	113	0.000	3	113	0.000	3	113	0.000
17:00 - 18:00	3	113	0.003	3	113	0.000	3	113	0.003
18:00 - 19:00	3	113	0.003	3	113	0.000	3	113	0.003
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.012			0.015			0.027

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/D - AFFORDABLE/LOCAL AUTHORITY FLATS

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	3	113	0.000	3	113	0.000	3	113	0.000
08:00 - 09:00	3	113	0.003	3	113	0.000	3	113	0.003
09:00 - 10:00	3	113	0.015	3	113	0.003	3	113	0.018
10:00 - 11:00	3	113	0.021	3	113	0.027	3	113	0.048
11:00 - 12:00	3	113	0.012	3	113	0.009	3	113	0.021
12:00 - 13:00	3	113	0.012	3	113	0.012	3	113	0.024
13:00 - 14:00	3	113	0.000	3	113	0.000	3	113	0.000
14:00 - 15:00	3	113	0.003	3	113	0.006	3	113	0.009
15:00 - 16:00	3	113	0.006	3	113	0.003	3	113	0.009
16:00 - 17:00	3	113	0.000	3	113	0.006	3	113	0.006
17:00 - 18:00	3	113	0.003	3	113	0.006	3	113	0.009
18:00 - 19:00	3	113	0.000	3	113	0.003	3	113	0.003
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.075			0.075			0.150

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 E

### Zipcar Car Club Proposal & Car Club Research Paper



# **Hylands Road** **London Borough of Waltham Forest** **Paul Mew Associates**

**Proposal: May 2019**

David Lang  
UK Property Developments

DD: 0203 004 7860  
[dlang@zipcar.co.uk](mailto:dlang@zipcar.co.uk)

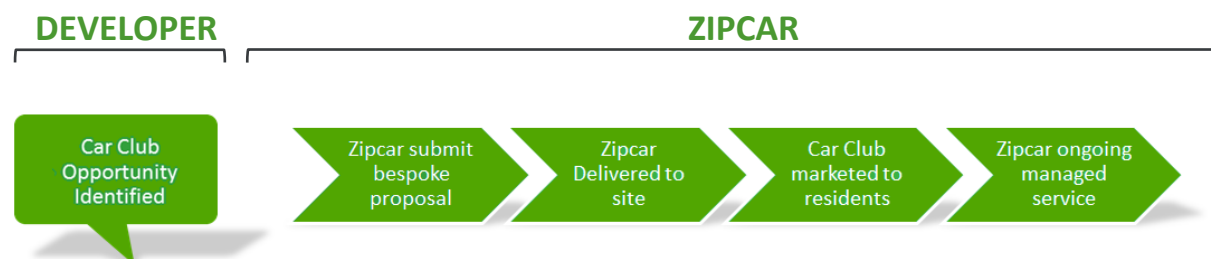


## Zipcar & Property Developments

Zipcar works with an ever increasing number of Property Developers, Transport Consultants and Housing Associations across the UK to:

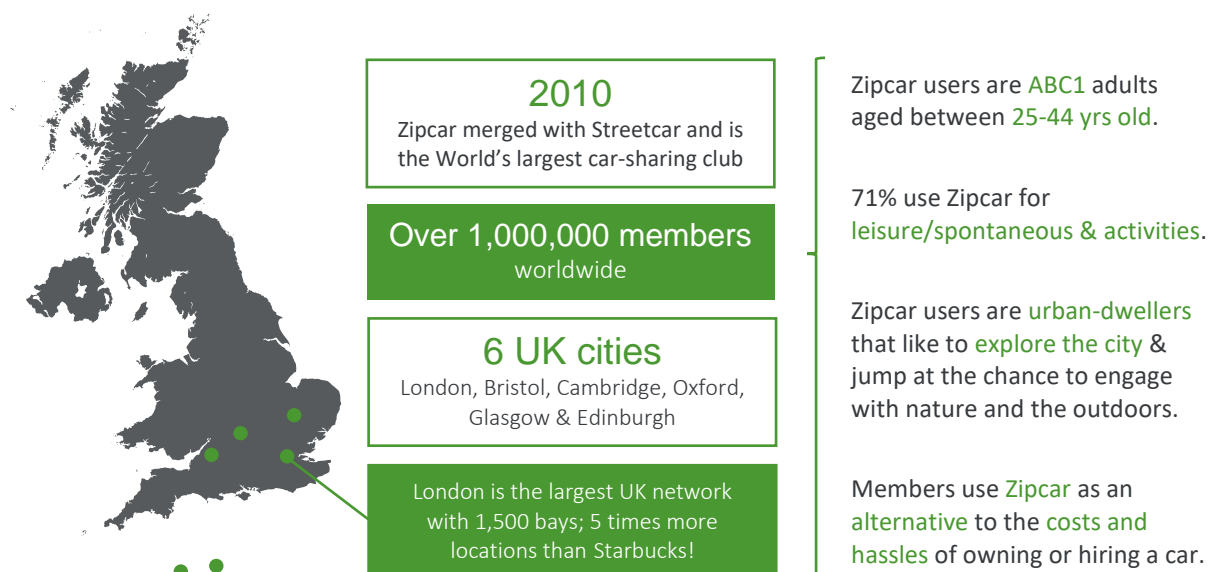
- ✓ Increase the likelihood of gaining planning permission on a site.
- ✓ Addressing specific Section 106 or Travel Plan requirements.
- ✓ Reducing the need to provide costly private parking.
- ✓ Act as a useful marketing tool to help sell properties with a limited parking provision.

## Working with Zipcar – 5 Simple Steps



## What is Zipcar?

Zipcar is a pay-as-you-go car club designed to provide members with access to cars and vans as quickly and conveniently as possible with the least amount of hassle. Our team is passionate about bringing this innovative concept to every urban street as a simpler, more efficient, more sustainable way to use a car.





## Best of both worlds

Zipcar is the only operator that give residents access to both a flexible per minute hire and long term hourly and daily model. Residents can just pick and choose whichever suits their trip. The Flex model has launched in six boroughs and we are looking to roll this across the city over the next 18 months.

### Roundtrip

Perfect for longer trips that go full circle. Need to lug some flat-pack back from Ikea? Or escaping to the country for a weekend? A Roundtrip is the easy way to do it. Book a vehicle, drive and return to the bay you picked it up from.

### Flex

Ideal for spontaneous one-way journeys. Pick up a Flex vehicle from the home zone and your friends enroute. Dashing to a meeting across town? Flex it in no time.

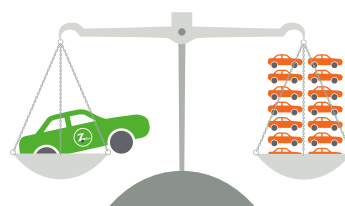
## Current Flex Home Zone



## A Sustainable Transport Solution

A large proportion of your future residents may have a private vehicle, but may not really need one. They may commute to work using public transport and just have a car for occasional use. A relationship with the world's largest car sharing club would definitely assist in reducing the carbon footprint of your residents, provide a convenient and easily-used service, and save them a substantial amount of money.

Every Zipcar takes an average of 10-15 privately owned cars off the roads of the UK, because members often sell (or don't replace) a car when they join.



Zipcar is a service that benefits the whole community. We have found that car club members choose to drive a car less after joining Zipcar; the average car club member only actually clocks up between 403 and 414 miles a year which is significantly less than private vehicle owners. This is because they both make better use of public transport and think much harder about their transport options according to what they need to achieve and the cost associated with that decision.

Not only this but car club vehicles are typically between 10% and 33% more efficient in terms of carbon dioxide emissions per KM travelled, in comparison to the average car, because operators chose new and fuel efficient models.



## Using Zipcar

The Zipcar process has been designed to provide simplicity and little administration – there are no depots or deposits involved (headaches typically found with regular car hire). Once the person has become a member there is no further form filling required to hire a vehicle anywhere in the world.



join



reserve



unlock



drive

## Development Viability

Zipcar has been operating in the borough of Waltham Forest since 2007 and is now working in partnership with the council to provide car clubs on-street to residents. We currently have 47 vehicles in the borough and over 7,121 members. The cars are performing well, being used approximately 8-10 hours a day. In our opinion a car club could work well at this location given support from the developer in the early phases of the development. The current proximity to local transport links is very good (approximately PTAL 6a) which is encouraging for the car club's chances of success, as synergy with public transport links is a key contributor to good car club performance. This makes it likely that the residents of this development will not need a car for work – essential to the success of the scheme.

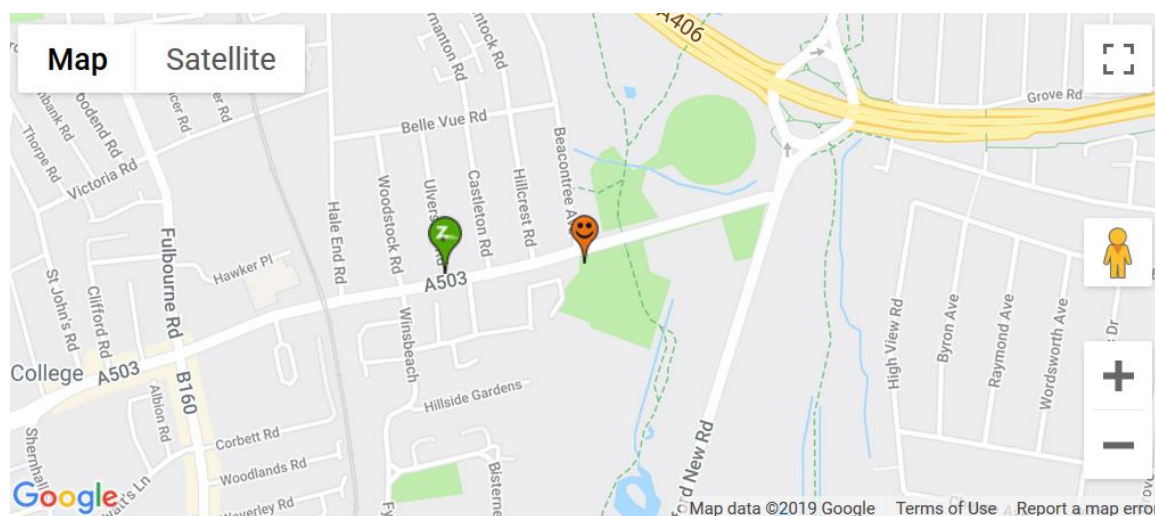
In our opinion a car club could work well at this location given support from the developer in the early phases of the development. The low parking on site should ultimately ensure good uptake of the car club. We normally rely on a parking ratio of less than 0.7 to guarantee car club success.

A developer funded marketing package will help ensure demand for the car club on site; the more we are able to incentivise people to try the service, the more people will use it and consequently use other green mobility options. As the map below indicates, there is a very strong network of Zipcar vehicles in the vicinity of the development and as a result, Zipcar would not seek to immediately add further vehicles on site, the existing network is more than sufficient to meet the car club needs of residents. However, as demand grows, we would evaluate the necessity to install a vehicle near the development when required.

We currently have a fixed bay, within a five-minute walk of the development and over 80 one-way flexible vehicles which development residents could utilize. The fixed bay on Ulverston Road has excess capacity to handle and new trip requests, which suggests additional members from the development will not negatively impact the service levels of existing local residents.

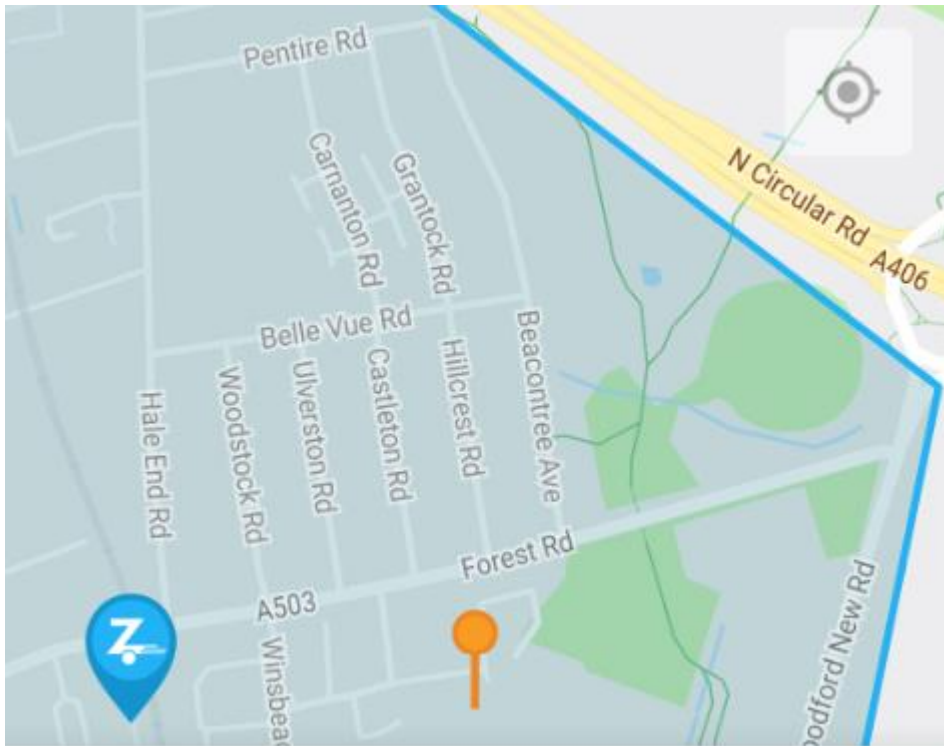
## Existing Network

### Round trip - fixed locations



## Flex vehicles – one-way

These will move fluidly across the home zone, but a snapshot today shows vehicles in the area (blue pins):



## Hylands Road Proposal

Zipcar recommends that residents use the existing network. Zipcar will provide a fully managed service, which includes the following:

- Offering two years' membership to all 120 homes
- Designing all marketing collateral for the development communications team
- Managing the sign-up process (including licence and insurance eligibility processes)
- Monitoring resident and development queries and providing reports (if required as part of S106 requirements) post launch

This comes to a total contribution of **£6,300 +VAT**. This sum is to be paid prior to the date of first occupation.

In exchange Zipcar would commit to a contractual obligation to run the car club operation at the development for a minimum of three years. Each resident that signs up during the three years will receive two years' free membership and Zipcar will offer £50+VAT driving credit per unit at no further cost to the developer. A contribution of **£6,000 +VAT from Zipcar**.

Zipcar will provide 1 year's free business account (usually £119) for any commercial entity operating from or in conjunction with the site at no further cost to the developer.

## The Zipcar development product

Zipcar have over 10 years of experience working with developers, travel planners and local authorities and have met the car club commitment on over 500 sites, ranging from ten to thousands of new homes. You will have dedicated support from our London based development specialists and we will support you from planning stage, through to installation and activation at the development.

Zipcar will create bespoke marketing collateral for the development managers and residents and work with our marketing partners to deliver a package that will create awareness of the car club on-site. Where required, Zipcar's operation team will install signage and branding for the Zipcar bays at no further cost to the developer.

Post launch, Zipcar will ensure that there are vehicles in the area to support development trip requests, not a feature of the standard product. We will also provide any necessary reporting data that is required to discharge any reporting clauses of the S106.

## Marketing Proposal

A free membership to Zipcar is an excellent marketing tool to utilise with prospective buyers who, due to low parking ratios and parking restrictions, are unable to have their own vehicle on site. We would market the free memberships as a benefit paid for by the developer that provides residents with a cheaper, greener more convenient alternative to private car ownership. In this way Zipcar adds real value to the development and is an excellent solution to the recurring problem of prospective residents not being able to have their own vehicle on site due to a lack of space.

### Developer communication

It is vital that the development's communications team promotes and supports the growth of the car club on site. Having a presence online either on the development website or through the residents' portal will ensure that all residents are aware of the transport modes and offers available to them and speed up uptake. Historically we have found most residents will use the service either to move into the property or for the subsequent furniture run within the first three months of occupation. Our marketing team will be able to provide copy or banners for the site, all of which will direct residents to a bespoke landing page educating them about the service.

Zipcar would promote its service to the residents of the development through a number of ways.

**Bespoke marketing material:** This would outline the offers your residents are entitled to. We find that this is crucial in generating early interest in the scheme; these would be part of each residents welcome pack. Additionally we would recommend that a mail shot is sent at a later date reminding residents of the service.

**Advertising within the development:** Zipcar would advertise within the development itself through posters and leaflets in communal areas.

## The Zipcar Fleet

Zipcar has a vehicle type for every occasion. This will ensure that your residents get the best possible service, and can find a vehicle to suit their needs. Zipcar membership also includes Zipvan membership – providing our members with convenient access to larger vehicles when required.

Our vehicles are best in class from an emissions perspective. A Zipcar lives in the fleet for a maximum of eight months, ensuring our members are driving the most modern and efficient fleet in any car club across the world.

Model	Weekday	Weekend
	Hourly / Daily	Hourly / Daily
Toyota Yaris / Ford Fiesta	£6 / £54	£7.50 / £65
VW Golf / Ford Focus	£7 / £64	£8.50 / £75
Toyota Prius (PHEV)	£7 / £64	£8.50 / £75
Audi A3	£8 / £74	£9.50 / £85
Ford CMAX (7 Seater)	£10 / £94	£11.50 / £105
VW Transporter	£10 / £89	£11.50 / £105

*Fuel, insurance and 60 free miles per 24 hours are included. Additional miles are 25p per mile (29p for premium vehicles and vans).*