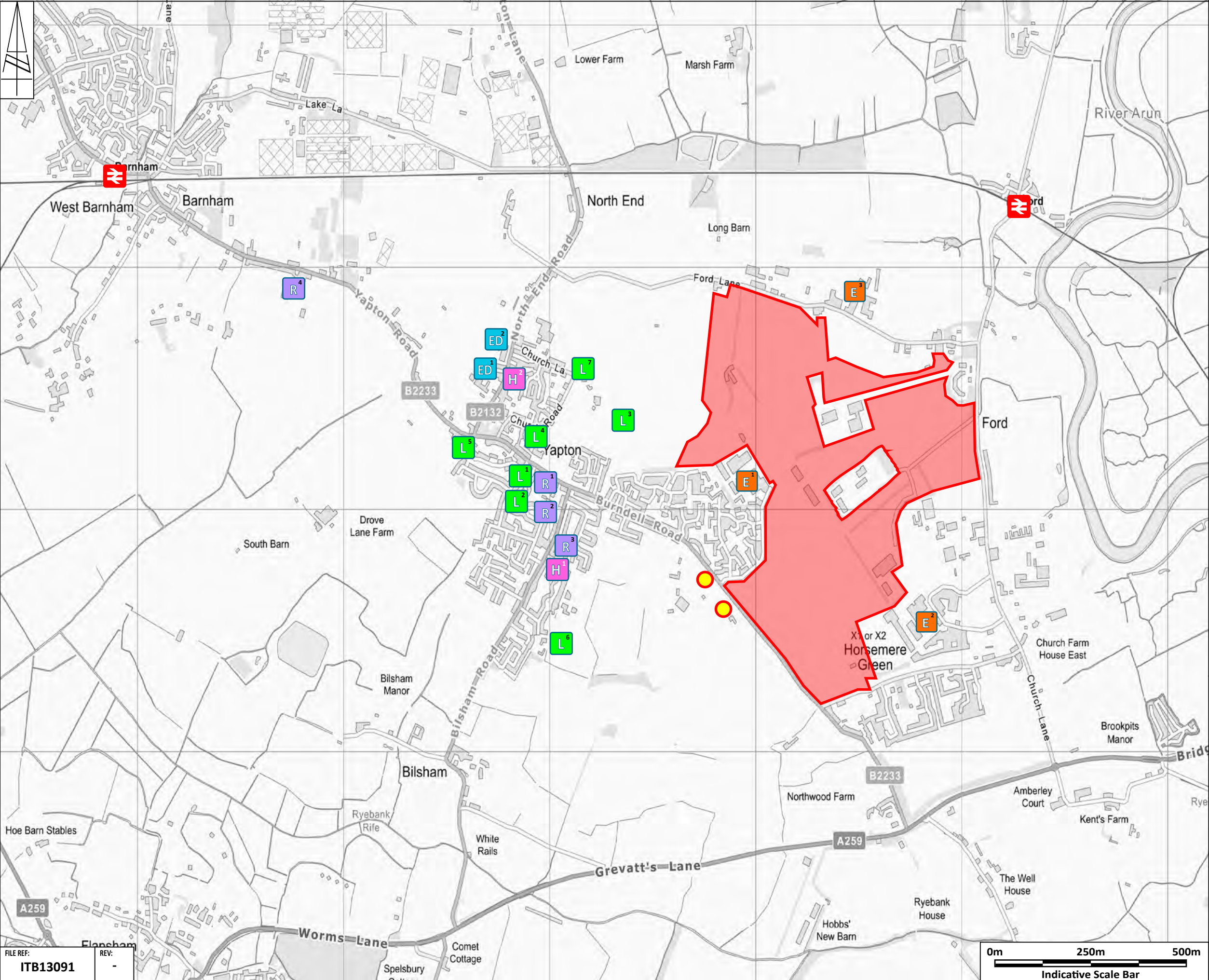




- KEY**
- SITE BOUNDARY
 - RAIL STATION
 - BUS STOP
- LEISURE**
- YAPTON TAKEAWAY
 - SILHOUETTE HAIR SALON
 - YAPTON RECREATION GROUND
 - VILLAGE HALL
 - YAPTON FREE CHURCH
 - ALLOTMENTS
 - ST MARYS C OF E CHURCH
- EMPLOYMENT**
- RUDFIELD INDUSTRIAL ESTATE
 - FORD AIRFIELD INDUSTRIAL ESTATE
 - FORD LANE INDUSTRIAL ESTATE
- RETAIL**
- YAPTON CO-OP (INC. PO)
 - MERRY MEATS BUTCHERS
 - BLISHAM LOCAL STORE
 - WINDMILL SHOPPING VILLAGE
- EDUCATION**
- YAPTON C OF E PRIMARY SCHOOL
 - YAPTON COMMUNITY PRE SCHOOL
- HEALTHCARE**
- AVISFORD MEDICAL GROUP
 - MEADOWSCROFT SURGERY

Grove House, Lutyens Close, Chineham Court,
Basingstoke, RG24 8AG
Tel: 01256 338 640
Fax: 01256 338 644
www.i-transport.co.uk

TITLE:

FORD AIRFIELD

LOCAL ACCESSIBILITY PLAN

FIGURE No:

FIGURE 4.1

FILE REF:
ITB13091

REV:
-



Reproduced from ordnance survey by the permission of the controller of her majestys
stationary office. Crown copyright. All rights reserved. Licence number 100022432

APPENDIX A

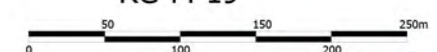
EMERGING ILLUSTRATIVE MASTERPLAN

Project
FORD
NEIGHBOURHOOD PLAN

Drawing Title

SKETCH MASTER PLAN
WITH NORTHERN EXPANSION

Date	Scale	Drawn by	Check by
28.09.15	1:5000@A2	M.D.	D.S.
Project No	Drawing No	Revision	
23885	RG-M-19	B	



**BARTON
WILLMORE**

Planning • Master Planning & Urban Design
Architecture • Landscape Planning & Design • Project Services
Environmental & Sustainability Assessment • Graphic Design

bartonwillmore.co.uk



Offices at Reading London Bristol Cambridge Cardiff Ebbw Vale Edinburgh Leeds Manchester Solihull



E enquiries@i-transport.co.uk

W www.i-transport.co.uk

Grove House, Lutyens Close
Chineham Court, Basingstoke
Hampshire RG24 8AG

T 01256 338 640

F 01256 338 644

Centurion House
129 Deansgate
Manchester M3 3WR

T 0161 830 2172

F 0161 830 2173

4 Lombard Street
London
EC3V 9HD

T 020 7190 2820

F 020 7190 2821

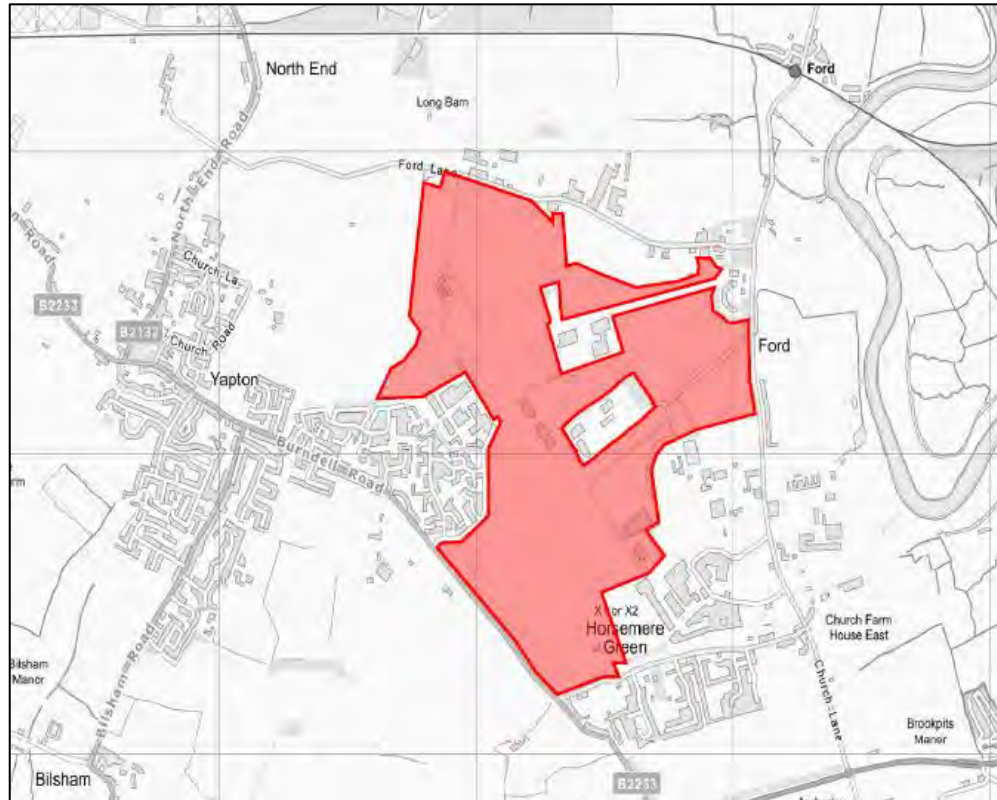
TECHNICAL NOTE

Project No:	ITB13091
Project Title:	Ford Airfield
Title:	Traffic Generation Methodology
Ref:	JCB/DS/ITB13091-007
Date:	18 July 2018

SECTION 1 INTRODUCTION AND BACKGROUND

- 1.1 Wates Developments Limited and Redrow Homes Limited have appointed i-Transport to provide highway and transport advice to support the proposed development at Ford Airfield, West Sussex.
- 1.2 The site is identified as Strategic Site Allocation SD8 in the Arun District Council (ADC) Local Plan 2011-2031 (publication version showing modifications dated March 2017). Ford Airfield is also allocated in the Submission Ford Neighbourhood Plan as Policy SA1. The location of the site is shown in Image 1.1, below.

Image 1.1: Site Location Plan



- 1.3 The redevelopment of the former airfield comprises 1,500 new homes, a local centre, a primary school, employment and a number of sport and recreation facilities. Discussions are ongoing with West Sussex County Council (WSSC) and Arun District Council (ADC) regarding the possibility of a new secondary school, required to accommodate demand for education arising from planned growth, being provided within the site.
- 1.4 This note sets out the proposed methodology for calculating the traffic generation of the development at Ford Airfield for discussion and agreement with WSSC. This note forms part of a wider series of notes in order to reach agreement on assessment parameters to inform the Transport Assessment.
- 1.5 As the proposed development at Ford Airfield is a mixed-use scheme that includes residential, employment, education, community and retail use, it is necessary to consider the different elements of the mixed-use scheme to enable the traffic generation of the development at Ford Airfield to be calculated. Therefore, the remainder of this Technical Note is structured as follows:
- Section 2 – Residential Traffic Generation;
 - Section 3 – Primary Education Traffic Generation;
 - Section 4 – Secondary Education Traffic Generation;
 - Section 5 – Other Uses Traffic Generation;
 - Section 6 – Total Traffic Generation; and
 - Section 7 – Summary and Conclusions.

SECTION 2 RESIDENTIAL TRAFFIC GENERATION

2.1 Background

- 2.1.1 The Arun Transport Study Stage 3 Final Report (ATS) establishes residential trip rates that have been used to inform the network capacity assessment within the ATS.
- 2.1.2 The trip rates have been derived from the Trip Rate Information Computer System (TRICS) database and extracted from the 'Houses Privately Owned' and 'Flats Privately Owned' sub land use category, based on data within the Strategic Housing Market Assessment (SHMA). Private market houses comprise 58% of the total trip rate and private market flats comprise the remaining 42%. The trip rates identified by the assessment are summarised in Table 2.1.

Table 2.1: Trip Rates – Arun Transport Study Stage 3 Final Report

Time Period	Arrivals	Departures	Two Way
08:00 – 09:00	0.091	0.259	0.350
17:00 – 18:00	0.243	0.100	0.343

Source: Arun Transport Study Stage 3 Final Report

- 2.1.3 In examining the Arun Local Plan, the Inspector stated that **“realistic trip rates”** (*ref: para 199, Report to Arun District Council, 4 July 2018*) have been applied and that **“...the Council has applied robust and consistent parameters relating to base flows, trip generation and assessing severe impacts”** (*ref: para 126, Report to Arun District Council, 4 July 2018*). The Inspector therefore concludes that the trip rates used in the Local Plan’s evidence base are sound.
- 2.1.4 Notwithstanding the above, as part of the Transport Assessment Scoping Meeting on the 18 May 2018, WSCC requested that the trip rates applied in the ATS were reviewed to determine whether they were suitable for use in the Transport Assessment (TA) accompanying the Ford Airfield development site, on the basis that the trip rates can be refined in accordance with site specific characteristics.
- 2.1.5 The remainder of this section of the report reviews the site-specific characteristics of the proposed development site and establishes the residential trip rate to be used to inform the TA.

2.2 General Residential Trip Generation

2.2.1 Multi-modal residential trip rates have been selected as the 'Main Land Use' and Mixed Private / Non- Private dwellings have been selected as the 'Sub Land Use'. This best represents the mixture of dwelling and tenure type which are likely to be provided on site, with Policy AH SP2 of the Arun Local Plan (ALP) requiring a minimum of 30% affordable provision.

2.2.2 The search has identified a total of 7 surveyed sites; the trip rates derived from the surveys are summarised in Table 2.2. A full copy of the TRICS data, including all selection parameters, is provided within Appendix A.

Table 2.2: Morning and Evening Peak Hour Trip Rates (vehicles per dwelling)

Time Period	Arrivals	Departures	Two Way
08:00 – 09:00	0.130	0.346	0.476
17:00 – 18:00	0.273	0.116	0.389

Source: TRICS v7.5.1

2.2.3 These rates represent a typical Mixed Private / Non- Private development containing a mixture of houses and flats. However, they do not fully take account of the characteristics of the proposed development at Ford Airfield, in so far as the proposed site will include a number of local facilities at the centre of the site. The facilities include a primary school, a possible secondary school, retail, services and employment.

2.2.4 In addition, the site is located in a sustainable location that provides a range of modal choices for residents. Ford Railway Station is located approximately 800m from the eastern boundary of the site, and the station provides regular services to Portsmouth, Southampton, Brighton and London Victoria. The Stagecoach 700 'Coastliner' bus service provides a 20-minute frequency to Chichester, Littlehampton and local schools, passing the proposed development site on its western boundary.

2.3 Site Specific Residential Trip Generation

2.3.1 To ensure that the trip rates used are representative of the proposed development at Ford Airfield, a detailed assessment has been undertaken on each of the TRICS sites used to determine the trip rates presented in Table 2.2.

2.3.2 Consideration has been given to the scale, housing mix, tenure, the location of the sites and their accessibility to local facilities and public transport. Tables 2.3 to 2.9 provides a summary of the site characteristics and presents the trip rates derived from the site-specific surveys contained within the TRICS database. The individual TRICS outputs of each site are provided at Appendix B.

Table 2.3: Site Characteristics and Site-Specific Trip Rates – Hunts Pond Road

Site	Development Characteristics	Local Highway Network	Local Services and Facilities	Public Transport Network
Hunts Pond Road, Fareham	The site is located in a residential area to the west of Fareham. The development includes a mixture of private and affordable houses and flats.	Located to the west of the A27 which provides access to local destinations. The M27 lies to the north of the site and can be accessed within a 3.5km drive of the site.	Primary School - 0.9 km Secondary School - 5.1 km Local Shop/ Corner Shop - 1.1 km Supermarket - 1.6 km Doctors Surgery - 1.7 km	Circa 2.5km from Swanwick Station which provides rail services to Southampton and Portsmouth. Hourly bus services to Fareham and Southampton available within 450m of site frontage.
Time Period		Arrivals	Departures	Two Way
Morning	08:00 – 09:00	0.149	0.445	0.594
Evening	17:00 – 18:00	0.290	0.113	0.403

Source: TRICS Database (v7.5.1)

Table 2.4: Site Characteristics and Site-Specific Trip Rates – South Coast Road

Site	Development Characteristics	Local Highway Network	Local Services and Facilities	Public Transport Network
South Coast Road, Peacehaven	The site is located at the south-eastern edge of Peacehaven, close to the coast. The development includes a mixture of private and affordable houses and flats.	Located off the A259 South Coast Road, which heads east and west between Peacehaven and Newhaven.	Primary School – 1.5km Secondary School – 1.7km Local Shop – 0.4km Supermarket – 3.0km Doctors – 1.3km	Circa 3.0km from Newhaven stations which provides rail services to Brighton and Seaford. Less than 2 services per hour to local destinations.
Time Period		Arrivals	Departures	Two Way
Morning	08:00 – 09:00	0.197	0.346	0.543
Evening	17:00 – 18:00	0.410	0.213	0.623

Source: TRICS Database (v7.5.1)

Table 2.5: Site Characteristics and Site-Specific Trip Rates – Aldermaston Road

Site	Development Characteristics	Local Highway Network	Local Services and Facilities	Public Transport Network
Aldermaston Road, Basingstoke	The site is located at the northern edge of Basingstoke, north of ring road. The development includes a mixture of private and affordable houses and flats.	Located off Aldermaston Road, which heads south east a short distance to the junction with the A339 Ringway North, and north into the countryside.	Primary School – 1.1km Secondary School – 1.8km Local Shop – 1.1km Supermarket – 1.0km Doctors – 1.1km	Circa 2.0km from Basingstoke Railway Station. Circa 8 buses per hour operate from within 400m of the site serving destinations including Newbury and Chineham
Time Period		Arrivals	Departures	Two Way
Morning	08:00 – 09:00	0.208	0.475	0.683
Evening	17:00 – 18:00	0.335	0.144	0.479

Source: TRICS Database (v7.5.1)

Table 2.6: Site Characteristics and Site-Specific Trip Rates – St Anne’s Drive

Site	Development Characteristics	Local Highway Network	Local Services and Facilities	Public Transport Network
St Anne’s Drive, Redhill	The site is situated at the eastern edge of Redhill around 400 metres to the north-east of the edge of the town. The development includes a mixture of private and affordable houses and flats.	Local routes head towards all parts of the town, with the A23 to the west. The M25 lies to the north of the site and can be accessed within an 8km drive of the site.	Primary School – 0.5 km Secondary School 0.1 - km Local Shop/ Corner Shop - 1 km Supermarket – 0.8 km Doctors Surgery – 0.9 km	Circa 1km from Redhill Station which provides frequent services to London Victoria and Crawley. Circa 2 – 3 buses operate per hour within 400m of the site.
Time Period		Arrivals	Departures	Two Way
Morning	08:00 – 09:00	0.100	0.280	0.380
Evening	17:00 – 18:00	0.186	0.082	0.238

Source: TRICS Database (v7.5.1)

Table 2.7: Site Characteristics and Site-Specific Trip Rates – Epsom Road

Site	Development Characteristics	Local Highway Network	Local Services and Facilities	Public Transport Network
Epsom Road, Surrey	This site is located in a residential area to the east of the centre of Guildford on Epsom Road. The development includes a mixture of private and affordable houses and flats.	The site is accessed from the A25 Epsom Road and local routes head towards all parts of the town. The A3 lies 3km to the north of the site.	Primary School – 0.6 km Secondary School - 1.2 km Local Shop/ Corner Shop – 0.6 km Supermarket – 3.5 km Doctors Surgery – 1 km	Circa 7 – 8 buses per hour operate within 400m of the site. Circa 1.6km from the site is London Road Station.
Time Period		Arrivals	Departures	Two Way
Morning	08:00 – 09:00	0.045	0.261	0.306
Evening	17:00 – 18:00	0.216	0.095	0.311

Source: TRICS Database (v7.5.1)

Table 2.8: Site Characteristics and Site-Specific Trip Rates – Upper Shoreham Road

Site	Development Characteristics	Local Highway Network	Local Services and Facilities	Public Transport Network
Upper Shoreham Road, Shoreham By Sea	This site is located in a residential area at the eastern edge of Shoreham by Sea. The development includes a mixture of private and affordable terraced houses and flats.	The A27 is located just to the north of the site, providing for local and strategic east and west journeys. Other local routes head towards various parts of town.	Primary School – 0.8 km Secondary School - 1.0 km Local Shop/Corner Shop – 0.2 km Supermarket – 0.6 km Doctors Surgery – 0.8 km	Circa 9 – 10 buses per hour operate within 400m of the site. Circa 1.5km from the site is Shoreham By Sea Station which provides services to Brighton and Chichester.
Time Period		Arrivals	Departures	Two Way
Morning	08:00 – 09:00	0.099	0.333	0.432
Evening	17:00 – 18:00	0.359	0.292	0.510

Source: TRICS Database (v7.5.1)

Table 2.9: Site Characteristics and Site-Specific Trip Rates – Summersdale Road

Site	Development Characteristics	Local Highway Network	Local Services and Facilities	Public Transport Network
Summersdale Road, Chichester	This site is located in a north-eastern suburb of Chichester, with local roads heading around the residential area. The site was originally a hospital; at the time of the survey, parts of the hospital were still functioning.	The A27 is located a 2km drive to the south of the site. Local routes heading to various parts of town.	Primary School – 0.9 km Secondary School - 1.6 km Local Shop/Corner Shop – 0.3 km Supermarket – 0.9 km Doctors Surgery – 0.2 km	Circa 6 buses per hour operate within 400m of the site. Circa 1.8km from the site is Chichester Railway Station which provides services to Brighton, Portsmouth and London Victoria.
Time Period		Arrivals	Departures	Two Way
Morning	08:00 – 09:00	0.131	0.294	0.425
Evening	17:00 – 18:00	0.238	0.140	0.378

Source: TRICS Database (v7.5.1)

2.3.3 Tables 2.3 to 2.9 demonstrate that the morning and evening period trip rates vary significantly between each of the sites selected. This variation in trip rates is not unexpected given the differing characteristics between the sites. For example, Hunts Pond is located 0.9km from the nearest primary school, 5.1km from the nearest secondary education facility and 2.5km from the nearest railway station; as such the site experiences a higher peak hour trip generation than other sites. By comparison, the St Anne's site has primary education located within 0.5km of the site, secondary education within 0.1km and the nearest railway station within 1.0km, resulting in the the vehicular trip rate being considerably lower.

2.3.4 Consideration has been given to the distance to local services and facilities (including the proposed mixed-uses within the development site), the local and strategic road network, the provision of bus services and the availability of rail services. Using these parameters, the following sites were identified as having similar characteristics to the proposed development at Ford Airfield.

- SC-03-M-03 – 500 dwellings, St Anne’s Drive, Redhill, Surrey; and
- SC-03-M-04 – 130 dwellings, Epsom Road, Surrey.

2.3.5 The primary factors in the deselection of the other sites identified in the search is set out in Table 2.10.

Table 2.10: Reasons for Site Deselection

	Reason for Deselection
Hunts Pond Road, Fareham	• Remote to secondary education; • Remote to railway station; and • Infrequent bus services
South Coast Road, Peacehaven	• Remote to railway stations; • Limited rail connectivity; and • Less frequent bus services
Aldermaston Road, Basingstoke	• Local railway station at upper limit of walkable distance and the station benefits from substantial car parking provision with good access via primary roads; and • Lack of local facilities; and • Severance to facilities caused by dual carriageway ring road.
Upper Shoreham Road, Shoreham	• Local railway station benefits from substantial on-site car parking and unrestricted free parking on local roads around station; • Limited sustainable connectivity/indirect routes to railway station; and • Direct access via Holmbush Roundabout to relatively uncongested section of Strategic Road Network.
Summersdale Road, Chichester	• Poor cycle connectivity to station (requiring use of junctions with evidenced cyclist safety history); • Station benefits from substantial on-site/local car parking provision; • Access to services severed by A286 Ring Road; and • Distance to secondary school in excess of that proposed for the Ford Airfield development.

2.3.6 Table 2.11, below, summarises the trip rates derived from the surveys associated with the site selections identified in paragraph 2.3.4.

Table 2.11: Trip Rates (vehicles per dwelling) - Specific Site Selections

Time Period	Arrivals	Departures	Two Way
08:00 – 09:00	0.084	0.275	0.359
17:00 – 18:00	0.195	0.064	0.259

Source: TRICS Database (v7.5.1)

- 2.3.7 For the purposes of comparison, the trip rates for the weekday morning and evening peaks are including within the Arun Transport Study are repeated in Table 2.12, below.

Table 2.12: Trip Rates (vehicles per dwelling) – Arun Transport Study

Time Period	Arrivals	Departures	Two Way
08:00 – 09:00	0.091	0.259	0.350
17:00 – 18:00	0.243	0.100	0.343

Source: Arun Transport Study

- 2.3.8 On the basis that the trip rates presented in Table 2.11 are derived from surveys of sites that are most representative of the local characteristics of the proposed development, these trip rates would be suitable to inform the residential trip generation of the Transport Assessment.
- 2.3.9 However, it is noted that whilst the morning peak hour trip rate is broadly comparable with the trip rates used in the Arun Transport Study, there is deviation in the evening peak trip rate. Therefore, in the interests of a robust assessment and consistency with the strategic transport study, the trip rates established through the Arun Transport Study, summarised in Table 2.12, will be used to inform the TA. On this basis, Table 2.13 sets out the trip generation of 1,500 dwellings at Ford Airfield.

Table 2.13: Morning and Evening Peak Hour Residential Trip Generation (vehicles)

Time Period	Arrivals	Departures	Two Way
08:00 – 09:00	137	389	526
17:00 – 18:00	365	150	515

Source: Consultant's calculations

- 2.3.10 As illustrated in Table 2.13, up to 1,500 dwellings are anticipated to generate some 526 two-way trips in the morning peak hour (08:00-09:00) and some 515 two-way trips in the evening peak hour (17:00-18:00).
- 2.3.11 The trip generation presented in Table 2.13 is a 'Garden Gate' trip generation and does not account for the opportunities for trips to be internalised within the development (i.e. movements that do not use the wider network to get to and from the destination of their journey purpose). Internalisation of movements to the other uses within the site is considered on a use-by-use basis throughout the remainder of this report.

SECTION 3 PRIMARY SCHOOL EDUCATION

3.1 Introduction

3.1.1 A two-form entry primary school is proposed as part of the development at Ford Airfield, with capacity for circa 420 pupils. The school is required to cater for the demand for primary school education generated by the development of 1,500 new homes at Ford Airfield.

3.1.2 It is anticipated that the on-site primary school will have a catchment area that extends to cover the entirety of the development site; however, there is potential from some trips to originate from outside of this catchment to fill any residual capacity.

3.1.3 A ‘first principles’ approach using robust assessment parameters has been undertaken to establish the likely number of car journeys associated with the provision of primary education on the site.

3.1.4 In order to robustly calculate the number of escort education movements and car trips, the analysis takes into account the expected primary school age pupil yield per dwelling, the likely number of primary school age children residing within the new development that will attend the proposed school, the likely proportion of primary school children who will travel to school by car and the average car occupancy. The full analysis is provided in Appendix C and summarised in the following section of this report.

3.2 On-Site Pupils

3.2.1 WSCC Education Officers have advised that the primary school pupil yield for a new development equates to 25 children per 100 dwellings. On the basis of the development providing 1,500 new homes, the site will generate a total of 375 of the 420 pupil places (i.e. internal trips). The remaining 45 places are likely to be occupied by pupils residing outside of the development site (i.e. external trips).

3.2.2 Data provided within the DfT's National Travel Survey (NTS) 2016 indicates that 20% of primary school children travel to school by car where journeys are less than one mile¹, and an average occupancy of 1.5 pupils per car has been assumed². On this basis, the 375 pupils generated by the Ford Airfield development will equate to 50 arrivals and 50 departures.

3.2.3 In order identify when these movements will occur, data from the TRICS database has been used to establish the proportion of trips generated during the peak hours and Table 3.1 provides a summary of the percentage of trips generated in each hour during the morning and evening peaks. Table 3.2 assigns the car trips associated with pupils originating from within the development site in accordance with the identified proportions.

Table 3.1: Primary School (2 FE) Internal Trip Proportion – Pupils

Time	Arrivals	Departures
AM Peak Period		
08:00-09:00	100%	75%
09:00-10:00	0%	25%
PM Peak Period		
16:00-17:00	0%	20%
17:00-18:00	0%	15%

Source: TRICS Database

Table 3.2: Primary School (2 FE) Internal Trip Generation – Pupils

Time	Arrivals	Departures	Two-Way
AM Peak Period			
08:00-09:00	50	38	88
09:00-10:00	0	12	12
PM Peak Period			
16:00-17:00	0	10	10
17:00-18:00	0	8	8

Source: Consultants' calculations

¹ Table NTS0614 'Trips to school by main mode, trip length and age: England, 2016', National Travel Survey 2016

² Table F.3 'Journeys to school by number of people in party: 1996/98' within 'Characteristics of the Escort Education Journey', Transport Trends 2000 Edition indicates that the average number of primary school pupils by car is 1.78. Therefore, an assumption of 1.5 is robust.

3.3 Off-Site Pupils

3.3.1 As set out in para 3.2.2, the residual capacity of the primary school (i.e. 45 places) could be utilised by pupils residing outside of the Ford Airfield development site. These movements are likely to originate from existing residential development to the north and west of Rollaston Park and south of Horsemere Green Lane.

3.3.2 Whilst parts of these areas are situated within 1km of the development site, pupils attending the new primary school originating from these locations are more likely to attend the site by car. Therefore, a review of the mode of travel to school data within the Department for Education School Census (January 2011) has been undertaken. Aldingbourne Primary School has been selected as a comparable location on the basis that:

- It serves a similar size residential catchment from a central location;
- It is a non-faith school; and
- It is located in close proximity to an inter-urban 'A' road.

3.3.3 A summary of the mode splits for the identified primary schools is presented in Table 3.3.

Table 3.3: Aldingbourne Primary School – Existing Mode Splits

School Name	No. of Pupils	Car	On-Foot	Other
Aldingbourne Primary School	215	29%	70%	1%

Source: 2011 School Census

3.3.4 Against this background, a mode split of 60% by car for pupils residing off-site has been adopted. This equates to a weighted average of 29% for the proportion of pupils travelling to the school overall (375 x 20% and 45 x 60%), which is consistent with the identified mode share at Aldingbourne Primary School.

3.3.5 On this basis, applying a modal split by car of 60% to the total number of off-site children at the 2 FE primary school equates to some 27 pupils arriving by car. Assuming an average occupancy of 1.5 vehicles per car this equates to some 18 external education escort arrivals and departures.

- 3.3.6 By applying the trip proportions established in Table 3.1, the traffic generation of the proposed primary school during peak periods is set out in Table 3.4.

Table 3.4: Primary School (2 FE) External Trip Generation – Pupils

Time	Arrivals	Departures	Two-Way
AM Peak Period			
08:00 - 09:00	18	14	32
09:00 - 10:00	0	4	4
PM Peak Period			
16:00 - 17:00	0	4	4
17:00 - 18:00	0	3	3

Source: Consultants' calculations

- 3.3.7 However, it should be noted that the provision of a school itself does not generate the demand for places in education but instead provides accommodation for an existing demand generated by population growth. Future demand for places in education which are not attributable to the development of Ford Airfield would be included within future background growth figures (which make allowance for increases in the number of households in the District based on planning data).

- 3.3.8 On this basis, the external movements associated with education escort trips identified in Table 3.4 will not be treated as new movements on the local highway network. The movements will, however, be used to assist the design and layout of the school site.

3.4 Staff

- 3.4.1 In respect of a 2 FE primary school, there would be a maximum of some 25 car parking spaces (assuming 1 space per 2 staff, in accordance with WSCC Car Parking Standards).
- 3.4.2 It has been assumed that 33% of the staff arrive during 07:00-08:00 and the remaining 67% arrive during 08:00-09:00. For departures, it has been assumed that 33% will occur during 16:00-17:00 and the remaining 67% during 17:00-18:00, as set out in Table 3.5. The resultant trip generation is summarised in Table 3.6.

Table 3.5: Primary School (2 FE) Peak Period Trip Proportion - Staff

Time	Arrivals	Departures
07:00 - 08:00	33%	0%
08:00 - 09:00	67%	0%
16:00 - 17:00	0%	67%
17:00 - 18:00	0%	33%

Source: Consultant's Estimates

Table 3.6: Primary School (2 FE) Peak Period Trip Generation – Staff

Time	Arrivals	Departures	Two-Way
AM Period			
07:00-08:00	8	0	8
08:00-09:00	17	0	17
PM Period			
16:00-17:00	0	17	17
17:00-18:00	0	8	8

Source: Consultant's Calculations

- 3.4.3 For the purposes of the assessment it has been assumed all staff reside off-site and will be distributed onto the wider highway network in accordance with the employment distribution and assignment methodology (which is detailed within Technical Note ITB13091-008).

3.5 Internalisation of Education Escort Trips from Garden Gate Residential Trips

- 3.5.1 The forecast trip generation of the proposed residential uses on site (as set out in Section 2 of this report) will intrinsically include trips to/from education uses, since these journeys make up a proportion of vehicle arrivals and departures from homes in the weekday morning and evening peak hours.
- 3.5.2 Therefore, a proportion of the internal escort education trips identified in Table 3.2 can be deducted from the forecast garden gate traffic generation of the residential element, since an arrival at the proposed primary school is a departure from a dwelling and vice versa and will not form part of an onward journey (i.e. from education to employment).

- 3.5.3 It has been assumed that 34% of car driver trips to school will continue onto work or another destination after dropping their child at school (rather than returning home)³. As such, the remaining 66% of the internal escort education trips will be deducted from the garden gate residential traffic generation as shown in Table 3.7 below, as they will return home after completing the education escort trip and not leave the site.

Table 3.7: Internalised Primary Escort Education Trips

Time	Arrivals	Departures	Two-Way
AM Period			
08:00-09:00	-25	-33	-58
09:00-10:00	-8	0	-8
PM Period			
17:00-18:00	0	0	0
18:00-19:00	0	0	0

Source: Consultant's Calculations

- 3.5.4 It has been assumed that no internalised escort education trips will occur in the evening PM, since any pupil arrivals or departures during this time is likely to be a trip linked with a return journey from employment or similar (e.g. a collection from an after-school club).

³ Table NTS0408 'Purpose of next trip by gender and previous trip (car driver trips only): England, 2016, National Travel Survey 2016, indicates a minimum of 66% of escort education trips (by car) return home, i.e. 34% continue onto another destination.

SECTION 4 SECONDARY SCHOOL EDUCATION

4.1 Introduction

4.1.1 At the current time there are ongoing discussions between the Developer, West Sussex County Council and Arun District Council regarding the provision and location of secondary school education. The County Council have indicated that a new 10 FE school is required to accommodate forecast growth in demand for places in education arising from the Arun Local Plan growth strategy. This section of the report considers the trip generation impact of secondary education provision should it be located on the Ford Airfield development site.

4.1.2 A ‘first principles’ approach using robust assessment parameters has been undertaken to establish the likely number of car journeys associated with the provision of secondary education on the site.

4.1.3 In order to robustly calculate the number of escort education movements and car trips, the analysis takes into account the expected secondary school age pupil yield per dwelling, the likely number of primary school age children residing within the new development that will attend the proposed school, the likely proportion of secondary school children who will travel to school by car and the average car occupancy. The full analysis is provided in Appendix D and summarised in the following section of this report.

4.2 On-Site Pupils

4.2.1 WSCC Education Officers have advised that the secondary school pupil yield for a new development equates to 13 children per 100 dwellings. On the basis of the development providing 1,500 new homes, the site will generate a total of 195 of the 1,500 pupil places (i.e. internal trips) available. The remaining 1,305 places are likely to be occupied by pupils residing outside of the development site (i.e. external trips).

4.2.2 Data provided within the DfT's National Travel Survey (NTS) 2016 indicates that 8% of secondary school children travel to school by car where journeys are less than one mile⁴, and an average occupancy of 1.5 pupils per car has again been assumed. On this basis, the 195 pupils generated by the Ford Airfield development will equate to 10 arrivals and 10 departures.

4.2.3 In order identify when these movements will occur, data from the TRICS database has been used to establish the proportional split of trips generated during the peak hours. Table 4.1 provides a summary of the proportion of trips generated in the morning and evening periods, and Table 4.2 assigns the car trips associated with pupils originating from within the development site in accordance with the identified proportions.

Table 4.1: Secondary School (10 FE) Internal Trip Proportion – Pupils

Time	Arrivals	Departures
AM Peak Period		
08:00-09:00	100%	75%
09:00-10:00	0%	25%
PM Peak Period		
16:00-17:00	0%	20%
17:00-18:00	0%	15%

Source: TRICS Database

Table 4.2: Secondary School (10 FE) Internal Trip Generation – Pupils

Time	Arrivals	Departures	Two-Way
AM Peak Period			
0800-0900	10	8	18
0900-1000	0	2	2
PM Peak Period			
1600-1700	-	2	2
1700-1800	-	2	2

Source: Consultants' calculations

⁴ Table NTS0614 'Trips to school by main mode, trip length and age: England, 2016', National Travel Survey 2016

4.3 Off-Site Pupils

- 4.3.1 As set out in para 4.2.2, the residual capacity of the secondary school (i.e. 1,305 places) would be utilised by pupils residing outside of the Ford Airfield development site. These movements are likely to originate from existing residential development to the north and west of Rollaston Park and south of Horsemere Green Lane, as well as from the wider District area as a result of growth associated with the Arun Local Plan growth strategy.
- 4.3.2 The provision of a school itself does not generate the demand for places in education but instead provides accommodation for an existing demand generated by population growth. Future demand for places in education which are not attributable to the development of Ford Airfield would be included within future background growth figures (which make allowance for increases in the number of households in the District based on planning data).
- 4.3.3 Transport Assessments associated with the delivery of growth identified in the Local Plan would be required to undertake a residential trip generation assessment, similar to that set out in Section 2 of this report, to ascertain the impact of development upon the local network. Vehicular trips associated with journeys to secondary school education would be intrinsically included as part of this assessment.
- 4.3.4 On this basis, no further analysis of movements associated with trips to the secondary school provision originating from outside of the Ford Airfield development site has been undertaken.

4.4 Staff

- 4.4.1 Secondary school employment ratios are expected to be 15 staff for every 100 pupils; therefore, a total of 150 staff would be expected for a 10 FE secondary school. There would be a maximum of some 75 car parking spaces (assuming 1 space per 2 staff, in accordance with WSCC Car Parking Standards).
- 4.4.2 It has been assumed that 33% of the staff arrive during 07:00-08:00 and the remaining 67% arrive during 08:00-09:00. For departures, it has been assumed that 33% will occur during 16:00-17:00 and the remaining 67% during 17:00-18:00. The resultant traffic generation is summarised in Tables 4.3 and 4.4 respectively.

Table 4.3: Secondary School (10 FE) Peak Period Trip Proportion - Staff

Time	Arrivals	Departures
07:00-08:00	33%	0%
08:00-09:00	67%	0%
16:00-17:00	0%	67%
17:00-18:00	0%	33%

Source: Consultant's Estimates

Table 4.4: Secondary School (10 FE) Peak Period Trip Generation – Staff

Time	Arrivals	Departures	Two-Way
AM Period			
07:00-08:00	25	0	25
08:00-09:00	50	0	50
PM Period			
16:00-17:00	0	50	50
17:00-18:00	0	25	25

Source: Consultant's Calculations

- 4.4.3 Of the staff required to support the school, a total of 13% would be attributable to population growth associated with the development of 1,500 new homes at Ford Airfield (a total of 195 pupils out of the 1500 capacity). This equates to some 20 members of staff; Table 4.5 sets out the number of staff trips that are attributable to the Ford Airfield development.

Table 4.5: Secondary School (10 FE) Peak Period Trip Generation – Staff

Time	Arrivals	Departures	Two-Way
AM Period			
07:00-08:00	3	0	3
08:00-09:00	7	0	7
PM Period			
16:00-17:00	0	7	7
17:00-18:00	0	3	3

Source: Consultant's Calculations

- 4.4.4 For the purposes of the assessment it has been assumed all staff reside off-site and the trips set out in Table 4.5 will distributed onto the wider highway network in accordance with the employment distribution and assignment methodology (which is detailed within Technical Note ITB13091-008).

4.5 Internalisation of Education Escort Trips from Garden Gate Residential Trips

- 4.5.1 The forecast trip generation of the proposed residential uses on site (as set out in Section 2 of this report) will intrinsically include trips to/from education uses, since these journeys make up a proportion of vehicle arrivals and departures from homes in the weekday morning and evening peak hours.
- 4.5.2 Therefore, a proportion of the internal escort education trips identified in Table 4.2 can be deducted from the forecast garden gate traffic generation of the residential element, since an arrival at the proposed secondary school is a departure from a dwelling, and vice versa, and will not form part of an onward journey (i.e. from education on to employment).
- 4.5.3 It has been assumed that 34% of car driver trips to school will continue onto work or another destination after dropping their child at school (rather than returning home)⁵. As such, the remaining 66% of the internal escort education trips will be deducted from the garden gate residential traffic generation as shown in Table 4.6, as they will return home after completing the education escort trip and not leave the site.

Table 4.6 Internalised Secondary School Escort Education Trips

Time	Arrivals	Departures	Two-Way
AM Period			
0800-0900	-5	-7	-12
0900-1000	-5	-	-5
PM Period			
1700-1800	-	-	-
1800-1900	-	-	-

Source: Consultant's Calculations

- 4.5.4 It has been assumed that no internalised escort education trips will occur in the evening peak period, since any pupil arrivals or departures during this time is likely to be a trip linked with a return journey from employment or similar (e.g. a collection from an after-school club).

⁵ Table NTS0408 'Purpose of next trip by gender and previous trip (car driver trips only): England, 2016, National Travel Survey 2016, indicates a minimum of 66% of escort education trips (by car) return home, i.e. 34% continue onto another destination.

SECTION 5 OTHER USES TRIP GENERATION

5.1 Employment Trip Generation

5.1.1 The emerging masterplan includes 37,000sqm of commercial floorspace located towards the eastern boundary of the site.

5.1.2 The Arun Transport Study Stage 3 Final Report (ATS) identifies employment trip rates that have been applied to the development locations as part of the strategic transport assessment. The trip rates have been derived from the TRICS database and are based on gross floor area (GFA) of office building space. The trip rates identified in the ATS are summarised in Table 5.1.

Table 5.1: Employment Trip Rates – Arun Transport Study Stage 3 Final Report

Time Period	Arrivals	Departures	Two Way
08:00 – 09:00	0.542	0.035	0.577
17:00 – 18:00	0.020	0.476	0.496

Source: Arun Transport Study Stage 3 Final Report

5.1.3 In examining the Arun Local Plan, the Inspector stated that **“realistic trip rates”** (*ref: para 199, Report to Arun District Council, 4 July 2018*) have been applied and that **“... the Council has applied robust and consistent parameters relating to base flows, trip generation and assessing severe impacts”** (*ref: para 126, Report to Arun District Council, 4 July 2018*). The Inspector therefore concludes that the trip rates used in the Local Plan’s evidence base are sound.

5.1.4 Notwithstanding the above, as part of the Transport Assessment Scoping Meeting held on the 18 May 2018, WSCC requested that the trip rates applied in the ATS were assessed to determine whether they were suitable for the Transport Assessment supporting the Ford Airfield development site, on the basis that the trip rates can be refined in accordance with site specific characteristics.

5.1.5 The nature and location of the site lends itself to light industrial units, as evidenced by existing employment opportunities in the local area. The existing Ford Airfield Industrial Estate provides accommodation for engineering and brewery companies, Rudford Industrial Estate provides accommodation for skip hire and irrigation companies and consent has been granted for a waste transfer facility on the former Tarmac Topblock Ltd production facility at Ford Airfield.

- 5.1.6 On this basis, light industrial trip rates have been derived from the TRICS database for a suburban/edge of town location. The full TRICS outputs are provided at Appendix E and the trip rates are summarised in Table 5.2.

Table 5.2: Employment Trip Rates (vehicles per 100sqm)

Time Periods		Arrivals	Departures	Two Way
Morning	07:00 – 08:00	0.261	0.050	0.311
	08:00 – 09:00	0.257	0.079	0.336
	09:00 – 10:00	0.203	0.110	0.313
Evening	16:00 – 17:00	0.056	0.275	0.331
	17:00 – 18:00	0.037	0.219	0.256
	18:00 – 19:00	0.023	0.134	0.157

Source: TRICS Database

- 5.1.7 Whilst trip rates presented in Table 5.2 are derived from surveys of sites that are most representative of the local characteristics of the proposed development and would therefore be suitable to inform the employment trip generation of the Transport Assessment, the trip rates established through the Arun Transport Study, summarised in Table 5.1, will be used to inform the Transport Assessment to ensure a robust assessment and consistency with the Arun Transport Study. On this basis, Table 5.3 sets out the network peak hour trip generation of 1,500 dwellings at Ford Airfield.

Table 5.3: Employment Trip Generation (vehicles) (37,000sqm)

Time Period	Arrivals	Departures	Two Way
08:00 – 09:00	200	13	213
17:00 – 18:00	7	176	183

Source: Consultants calculations

- 5.1.8 As illustrated in Table 5.3, up to 37,000 sqm of commercial floorspace is expected to generate some 213 two-way trips in the morning peak hour (08:00-09:00) and 183 two-way trips in the evening peak hour (17:00-18:00).

Internalisation of Residential – Employment Trips

- 5.1.9 The forecast trip generation of the proposed residential uses on site (as set out in Section 2 of this report) will intrinsically include trips to/from employment uses, as these journeys make up a proportion of vehicle arrivals and departures to and from homes in the weekday morning and evening peak hour periods.

5.1.10 The likely journey purpose for the generated car driver peak hour trips has been determined using data derived from the National Travel Survey (NTS) 2014 (DfT). The proportion of peak hour trips by journey purpose by car is presented in Table 5.4.

Table 5.4: Proportion of Peak Hour Trips by Journey Purpose (Car Driver Only)

Trip Purpose	AM Peak (0800-0900)	PM Peak (1700-1800)
Commuting/Business	40%	46%
All Other Journey Purposes	60%	54%
Total	100%	100%

Source: Car driver trip start time by trip purpose (Monday to Friday only): Great Britain, 2010/14, National Travel Survey, DfT, 2015

5.1.11 By applying the factors set out in Table 5.4 to the residential trip generation set out in Table 2.13, the number of trips relating to employment during the morning and evening peak hour are summarised in Table 5.5.

Table 5.5: Number of Commuting Journeys (Car Driver Only)

Trip Purpose	Arrivals	Departures	Two-Way
AM Peak (08:00-09:00)	55	156	211
PM Peak (17:00-18:00)	168	69	237

Source: Consultants calculations

5.1.12 Analysis of Journey to Work data from the 2011 Census establishes that 9.6% of the existing population of the Ford/Yapton output area travel to work by car to destinations within Yapton or Ford. On this basis, the number of movements generated by the residential element of the development that will travel by car to work in Ford or Yapton are summarised in Table 5.6.

Table 5.6: Number of Commuting Journeys (Car Driver Only)

Trip Purpose	Arrivals	Departures	Two-Way
AM Peak (08:00-09:00)	5	14	19
PM Peak (17:00-18:00)	16	7	23

Source: Consultants calculations

5.1.13 It has been assumed that 50% of the movements identified in Table 5.6 will travel between the proposed residential and employment uses within the Ford Airfield development site. The remaining 50% of the movements will travel to destinations external to the site (i.e. Rudford Industrial Estate and Ford Lane Industrial Estate). On this basis, the number of internalised trips is set out in Table 5.7. These reductions apply to both the residential and employment trip generation totals, since an arrival at the industrial unit represents a departure from a residential dwelling, and vice versa.

Table 5.7: Internalised Trips (vehicles)

Time	Arrivals	Departures	Two-Way
Employment			
0800-0900	-14	-3	-17
1700-1800	-3	-8	-11
Residential			
1700-1800	-3	-14	-17
1800-1900	-8	-3	-11

Source: Consultant's Calculations

5.2 Local Centre Trip Generation

5.2.1 A local centre is proposed on site. Whilst the details of this local centre are not confirmed, it is likely that the local centre will include a small-scale mix of the following uses, either as a whole or comprising of a series of small units, intended to provide facilities for future residents of the development.

- Retail/convenience store;
- Services/health care; and
- Community space.

5.2.2 The community and health uses are likely to be contained within the local centre and would be primarily intended to serve new residents of the proposed development; it is not considered that the local centre would generate primary purpose trips (i.e. trips that are intended solely as a trip to or from the service) in the morning and evening peak hours that are external to the site.

- 5.2.3 Retail trips are generally made up of pass by and diverted trips rather than being new network trips. Furthermore, the store would be primarily for new residents of the proposed development at Ford Airfield, with the existing population centres in the vicinity of the site served by existing convenience store provision. For example, a Co-Op is located approximately 2.0km to the north west of the site serving Yapton and Tesco located approximately 2.5km to the south east of the site serving Littlehampton. Existing population centres would need to travel past these competing stores in order to access facilities at the Ford Airfield development.
- 5.2.4 On this basis, and when considering that residential trip rates already include retail as a trip attraction, it is not considered that the retail store would generate any new primary purpose trips in the morning and evening peak periods with origins or destinations that are external to the site.

SECTION 6 TOTAL TRAFFIC GENERATION

6.1 On the basis of the traffic generation methodology set out in Sections 2, 3, 4 and 5 of this report, Tables 5.1 and 5.2 summarises the morning and evening peak hour external traffic generation of the proposed development at Ford Airfield respectively.

Table 5.1: Morning Peak Hour (08:00-09:00) Trip Generation – All Uses (vehicles)

Use	Table Ref	Arrivals	Departures	Two-Way
Residential (1,500 dwellings)	2.13	137	389	526
Employment (37,000sqm)	5.3	200	13	213
Primary School (staff)	3.6	17	0	17
Secondary School (staff)	4.5	7	0	7
Residential to Primary Education Internalisation	3.7	-25	-33	-58
Residential to Secondary Education Internalisation	4.6	-5	-7	-12
Residential to Employment Internalisation	5.7	-3	-14	-17
Employment to Residential Internalisation	5.7	-14	-3	-17
TOTAL	-	314	345	659

Source: Consultant's Calculations

Table 5.2: Evening Peak Hour (17:00-18:00) Trip Generation – All Uses (vehicles)

Use	Table Ref	Arrivals	Departures	Two-Way
Residential (1,500 dwellings)	2.13	365	150	515
Employment (37,000sqm)	5.3	7	176	183
Primary School (staff)	3.6	0	17	17
Secondary School (staff)	4.5	0	3	3
Residential to Primary Internalisation	3.7	0	0	0
Residential to Secondary Internalisation	4.6	0	0	0
Residential to Employment Internalisation	5.7	-3	-8	-11
Employment to Residential Internalisation	5.7	-8	-3	-11
TOTAL	-	361	335	696

Source: Consultant's Calculations

SECTION 7 SUMMARY AND CONCLUSIONS

- 7.1 Wates Developments Limited and Redrow Homes Limited have appointed i-Transport to provide highway and transport advice to support the proposed development at Ford Airfield, West Sussex. This note sets out the proposed methodology for calculating the traffic generation of the development at Ford Airfield for discussion and agreement with WSCC. This note forms part of a wider series of notes in order to reach agreement on assessment parameters to inform the Transport Assessment (TA).
- 7.2 In examining the Arun Local Plan, the Inspector stated that ‘realistic trip rates’ (ref: *para 199, Report to Arun District Council, 4 July 2018*) have been applied and that ‘... the Council has applied robust and consistent parameters relating to base flows, trip generation and assessing severe impacts’ (ref: *para 126, Report to Arun District Council, 4 July 2018*). The Inspector concludes that the approach is sound.
- 7.3 Notwithstanding the above, as part of the Transport Assessment Scoping Meeting (18 May 2018), WSCC requested that the trip rates applied in the Arun Transport Study (ATS) were assessed to determine whether they were suitable for the TA accompanying the Ford Airfield development proposals, on the basis that the trip rates can be refined in accordance with site specific characteristics
- 7.4 Residential trip rates have been obtained from the TRICS database for mixed private/non-private dwellings. A detailed assessment has been undertaken on the survey sites to demonstrate that the trip rate proposed is reflective of the character of the proposed development. It is noted that whilst the morning peak hour trip rate is broadly comparable with the trip rates used in the Arun Transport Study, there is deviation in the evening peak trip rate. Therefore, in the interests of a robust assessment and consistency with the strategic transport study, the trip rates established through the Arun Transport Study will be used to inform the assessment.
- 7.5 A ‘first principles’ approach using robust assessment parameters has been undertaken to establish the likely number of car journeys associated with the provision of primary school education on the site. A two-form entry primary school is required to accommodate demand generated by the proposed development, with the residual capacity of 45 pupils. As trips associated with these pupils are not attributable to the Ford Airfield development (and would nevertheless be included in background growth calculations), they have not been added to the Ford Airfield external trip generation.

- 7.6 A 'first principles' approach using robust assessment parameters has been undertaken to establish the likely number of car journeys associated with the provision of secondary school education on the site. A ten-form entry is being sought by WSCC, which is required to accommodate demand for secondary school places generated by the Arun District growth strategy. As these movements are not attributable to the Ford Airfield development (and would nevertheless be included in background growth calculations), trips associated with pupils external to the site have not been added to the Ford Airfield external trip generation.
- 7.7 All education related staff trips attributable to the proposed development have been added to the external trip generation of the Ford Airfield development site. However, movements relating to secondary school education staff are only required in the event that the decision is taken to locate the secondary school within the development site.
- 7.8 Trips from residential dwellings to education facilities are intrinsically included within the morning and evening peak hour trip rates derived from TRICS. An assessment, utilising National Travel Survey results, has been undertaken to identify the number of 'non-chained' trips (i.e. trips that are solely education escort trips and have no onward purpose). These trips have been removed from the residential trip generation of the site as 'internalised' movements. Again, internalised trips relating to secondary education are only to be removed in the event that a secondary school is located within the development site.
- 7.9 Trip generation associated with the proposed 37,000sqm of employment floorspace has been derived from the TRICS database. It is noted that the identified trip rates are lower than those used in the Arun Transport Study. Therefore, in the interests of a robust assessment and consistency with the strategic transport study, the trip rates established through the Arun Transport Study have been used to inform the assessment.

- 7.10 The residential trip rates intrinsically include movements that have an origin or destination of an employment use, and vice versa. A review of 2011 Census data establishes that 9.6% of persons live and work within the Ford/Yapton output area. An assessment has been undertaken using a combination of National Travel Survey and 2011 Census data to establish the number of movements between the residential properties and the employment uses included as part of the development. The identified movements have been removed from the total external trip generation as an internalised movement.
- 7.11 It has been assumed that the local centre, containing small scale convenience retail, health services and community space, will be ancillary to the proposed development and would not generate morning and evening peak hour trips where the primary purpose would be to access these services or facilities (i.e. any external movements would be part of a pass-by or linked trip). Therefore, no peak hour trip generation has been attributed to these uses.
- 7.1.1 Agreement is sought from West Sussex County Council that the proposed methodology for calculating the trip generation of the proposed development is acceptable.

APPENDIX A

TRICS DATA – GENERAL RESIDENTIAL

Calculation Reference: AUDIT-236601-180601-0640

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST	
ES	EAST SUSSEX	1 days
HC	HAMPSHIRE	2 days
SC	SURREY	2 days
WS	WEST SUSSEX	2 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:	188 to 500 (units:)
Range Selected by User:	100 to 1412 (units:)

Public Transport Provision:

Selection by:	Include all surveys
---------------	---------------------

Date Range:	01/01/10 to 21/03/17
-------------	----------------------

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

Selected survey days:

Tuesday	1 days
Wednesday	3 days
Thursday	3 days

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

Selected survey types:

Manual count	7 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	4

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	6
No Sub Category	1

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

Secondary Filtering selection:

Use Class:

C3	7 days
----	--------

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

Secondary Filtering selection (Cont.):

Population within 1 mile:

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

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

Population within 5 miles:

50,001 to 75,000	1 days
75,001 to 100,000	1 days
125,001 to 250,000	5 days

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

Car ownership within 5 miles:

1.1 to 1.5	6 days
1.6 to 2.0	1 days

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

Travel Plan:

Yes	7 days
-----	--------

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

PTAL Rating:

No PTAL Present	7 days
-----------------	--------

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

LIST OF SITES relevant to selection parameters

1	ES-03-M-07	MIXED HOUSING	EAST SUSSEX
	SOUTH COAST ROAD		
	PEACEHAVEN		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	188	
	Survey date: THURSDAY	12/11/15	Survey Type: MANUAL
2	HC-03-M-06	HOUSES & FLATS	HAMPSHIRE
	HUNTS POND ROAD		
	TITCHFIELD		
	NEAR FAREHAM		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	328	
	Survey date: WEDNESDAY	04/11/15	Survey Type: MANUAL
3	HC-03-M-07	MIXED HOUSES & FLATS	HAMPSHIRE
	ALDERMASTON ROAD		
	BASINGSTOKE		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings:	236	
	Survey date: TUESDAY	21/03/17	Survey Type: MANUAL
4	SC-03-M-06	HOUSES & FLATS	SURREY
	ST ANNE'S DRIVE		
	REDHILL		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	500	
	Survey date: WEDNESDAY	11/12/13	Survey Type: MANUAL
5	SC-03-M-07	HOUSES/FLATS	SURREY
	EPSOM ROAD		
	GUILDFORD		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	199	
	Survey date: THURSDAY	24/10/13	Survey Type: MANUAL
6	WS-03-M-04	HOUSES & FLATS	WEST SUSSEX
	SUMMERSDALE ROAD		
	CHICHESTER		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	214	
	Survey date: THURSDAY	08/05/14	Survey Type: MANUAL
7	WS-03-M-12	HOUSES & FLATS	WEST SUSSEX
	UPPER SHOREHAM ROAD		
	SHOREHAM BY SEA		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	192	
	Survey date: WEDNESDAY	27/04/16	Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING
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	7	265	0.061	7	265	0.255	7	265	0.316
08:00 - 09:00	7	265	0.130	7	265	0.346	7	265	0.476
09:00 - 10:00	7	265	0.111	7	265	0.144	7	265	0.255
10:00 - 11:00	7	265	0.097	7	265	0.132	7	265	0.229
11:00 - 12:00	7	265	0.106	7	265	0.113	7	265	0.219
12:00 - 13:00	7	265	0.109	7	265	0.116	7	265	0.225
13:00 - 14:00	7	265	0.113	7	265	0.114	7	265	0.227
14:00 - 15:00	7	265	0.109	7	265	0.140	7	265	0.249
15:00 - 16:00	7	265	0.230	7	265	0.136	7	265	0.366
16:00 - 17:00	7	265	0.215	7	265	0.123	7	265	0.338
17:00 - 18:00	7	265	0.273	7	265	0.116	7	265	0.389
18:00 - 19:00	7	265	0.251	7	265	0.134	7	265	0.385
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		1.805			1.869			3.674	

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 B

TRICS DATA – SITE SPECIFIC

Calculation Reference: AUDIT-236601-180601-0657

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02 SOUTH EAST
 HC HAMPSHIRE 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: 236 to 236 (units:)
 Range Selected by User: 236 to 236 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 21/03/17

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

Selected survey days:

Tuesday 1 days

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

Selected survey types:

Manual count 1 days
 Directional ATC Count 0 days

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

Selected Locations:

Edge of Town 1

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

Selected Location Sub Categories:

No Sub Category 1

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

Secondary Filtering selection:

Use Class:

C3 1 days

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

Population within 1 mile:

20,001 to 25,000 1 days

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

Secondary Filtering selection (Cont.):

Population within 5 miles:

125,001 to 250,000

1 days

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

Car ownership within 5 miles:

1.1 to 1.5

1 days

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

Travel Plan:

Yes

1 days

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

PTAL Rating:

No PTAL Present

1 days

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

LIST OF SITES relevant to selection parameters

1	HC-03-M-07	MIXED HOUSES & FLATS	HAMPSHIRE
	ALDERMASTON ROAD		
	BASINGSTOKE		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings:	236	
	Survey date: TUESDAY	21/03/17	Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING
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	1	236	0.097	1	236	0.339	1	236	0.436
08:00 - 09:00	1	236	0.208	1	236	0.475	1	236	0.683
09:00 - 10:00	1	236	0.165	1	236	0.191	1	236	0.356
10:00 - 11:00	1	236	0.127	1	236	0.165	1	236	0.292
11:00 - 12:00	1	236	0.136	1	236	0.123	1	236	0.259
12:00 - 13:00	1	236	0.165	1	236	0.186	1	236	0.351
13:00 - 14:00	1	236	0.144	1	236	0.114	1	236	0.258
14:00 - 15:00	1	236	0.169	1	236	0.203	1	236	0.372
15:00 - 16:00	1	236	0.288	1	236	0.157	1	236	0.445
16:00 - 17:00	1	236	0.258	1	236	0.165	1	236	0.423
17:00 - 18:00	1	236	0.335	1	236	0.144	1	236	0.479
18:00 - 19:00	1	236	0.339	1	236	0.169	1	236	0.508
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		2.431			2.431			4.862	

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.

Calculation Reference: AUDIT-236601-180601-0607

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02 SOUTH EAST
 SC SURREY 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: 199 to 199 (units:)
 Range Selected by User: 199 to 199 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 24/10/13

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

Selected survey days:

Thursday 1 days

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

Selected survey types:

Manual count 1 days
 Directional ATC Count 0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre) 1

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

Selected Location Sub Categories:

Residential Zone 1

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

Secondary Filtering selection:

Use Class:

C3 1 days

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

Population within 1 mile:

5,001 to 10,000 1 days

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

Secondary Filtering selection (Cont.):

Population within 5 miles:

125,001 to 250,000 1 days

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

Car ownership within 5 miles:

1.1 to 1.5 1 days

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

Travel Plan:

Yes 1 days

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

PTAL Rating:

No PTAL Present 1 days

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

LIST OF SITES relevant to selection parameters

1	SC-03-M-07	HOUSES/FLATS	SURREY
	EPSOM ROAD		
	GUILDFORD		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	199	
	Survey date: THURSDAY	24/10/13	Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING
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	1	199	0.040	1	199	0.101	1	199	0.141
08:00 - 09:00	1	199	0.045	1	199	0.261	1	199	0.306
09:00 - 10:00	1	199	0.101	1	199	0.211	1	199	0.312
10:00 - 11:00	1	199	0.045	1	199	0.146	1	199	0.191
11:00 - 12:00	1	199	0.065	1	199	0.095	1	199	0.160
12:00 - 13:00	1	199	0.020	1	199	0.030	1	199	0.050
13:00 - 14:00	1	199	0.085	1	199	0.080	1	199	0.165
14:00 - 15:00	1	199	0.065	1	199	0.035	1	199	0.100
15:00 - 16:00	1	199	0.116	1	199	0.050	1	199	0.166
16:00 - 17:00	1	199	0.221	1	199	0.136	1	199	0.357
17:00 - 18:00	1	199	0.216	1	199	0.095	1	199	0.311
18:00 - 19:00	1	199	0.276	1	199	0.111	1	199	0.387
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		1.295			1.351				2.646

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.

Calculation Reference: AUDIT-236601-180601-0636

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02 SOUTH EAST
 HC HAMPSHIRE 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: 328 to 328 (units:)
 Range Selected by User: 328 to 328 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 04/11/15

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

Selected survey days:

Wednesday 1 days

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

Selected survey types:

Manual count 1 days
 Directional ATC Count 0 days

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

Selected Locations:

Edge of Town 1

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

Selected Location Sub Categories:

Residential Zone 1

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

Secondary Filtering selection:

Use Class:

C3 1 days

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

Population within 1 mile:

5,001 to 10,000 1 days

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

Secondary Filtering selection (Cont.):

Population within 5 miles:

125,001 to 250,000 1 days

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

Car ownership within 5 miles:

1.6 to 2.0 1 days

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

Travel Plan:

Yes 1 days

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

PTAL Rating:

No PTAL Present 1 days

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

LIST OF SITES relevant to selection parameters

1	HC-03-M-06	HOUSES & FLATS	HAMPSHIRE
	HUNTS POND ROAD		
	TITCHFIELD		
	NEAR FAREHAM		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	328	
	Survey date: WEDNESDAY	04/11/15	Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING
 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	1	328	0.064	1	328	0.351	1	328	0.415
08:00 - 09:00	1	328	0.149	1	328	0.445	1	328	0.594
09:00 - 10:00	1	328	0.128	1	328	0.149	1	328	0.277
10:00 - 11:00	1	328	0.116	1	328	0.134	1	328	0.250
11:00 - 12:00	1	328	0.107	1	328	0.143	1	328	0.250
12:00 - 13:00	1	328	0.113	1	328	0.098	1	328	0.211
13:00 - 14:00	1	328	0.125	1	328	0.110	1	328	0.235
14:00 - 15:00	1	328	0.140	1	328	0.189	1	328	0.329
15:00 - 16:00	1	328	0.311	1	328	0.171	1	328	0.482
16:00 - 17:00	1	328	0.256	1	328	0.128	1	328	0.384
17:00 - 18:00	1	328	0.290	1	328	0.113	1	328	0.403
18:00 - 19:00	1	328	0.277	1	328	0.155	1	328	0.432
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		2.076			2.186			4.262	

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.*

Calculation Reference: AUDIT-236601-180601-0615

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02 SOUTH EAST
 ES EAST SUSSEX 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: 188 to 188 (units:)
 Range Selected by User: 188 to 188 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 12/11/15

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

Selected survey days:

Thursday 1 days

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

Selected survey types:

Manual count 1 days
 Directional ATC Count 0 days

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

Selected Locations:

Edge of Town 1

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

Selected Location Sub Categories:

Residential Zone 1

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

Secondary Filtering selection:

Use Class:

C3 1 days

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

Population within 1 mile:

10,001 to 15,000 1 days

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

Secondary Filtering selection (Cont.):

Population within 5 miles:

75,001 to 100,000 1 days

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

Car ownership within 5 miles:

1.1 to 1.5 1 days

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

Travel Plan:

Yes 1 days

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

PTAL Rating:

No PTAL Present 1 days

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

LIST OF SITES relevant to selection parameters

1	ES-03-M-07	MIXED HOUSING	EAST SUSSEX
	SOUTH COAST ROAD		
	PEACEHAVEN		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:		188
	Survey date: THURSDAY		12/11/15
	Survey Type: MANUAL		

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

TRIP RATE for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING
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	1	188	0.138	1	188	0.420	1	188	0.558
08:00 - 09:00	1	188	0.197	1	188	0.346	1	188	0.543
09:00 - 10:00	1	188	0.117	1	188	0.106	1	188	0.223
10:00 - 11:00	1	188	0.138	1	188	0.165	1	188	0.303
11:00 - 12:00	1	188	0.207	1	188	0.176	1	188	0.383
12:00 - 13:00	1	188	0.138	1	188	0.122	1	188	0.260
13:00 - 14:00	1	188	0.170	1	188	0.213	1	188	0.383
14:00 - 15:00	1	188	0.154	1	188	0.229	1	188	0.383
15:00 - 16:00	1	188	0.351	1	188	0.202	1	188	0.553
16:00 - 17:00	1	188	0.282	1	188	0.133	1	188	0.415
17:00 - 18:00	1	188	0.410	1	188	0.213	1	188	0.623
18:00 - 19:00	1	188	0.351	1	188	0.266	1	188	0.617
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		2.653			2.591			5.244	

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.

Calculation Reference: AUDIT-236601-180601-0658

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02 SOUTH EAST
SC SURREY 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: 500 to 500 (units:)
Range Selected by User: 500 to 500 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 11/12/13

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

Selected survey days:

Wednesday 1 days

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

Selected survey types:

Manual count 1 days
Directional ATC Count 0 days

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

Selected Locations:

Edge of Town 1

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

Selected Location Sub Categories:

Residential Zone 1

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

Secondary Filtering selection:

Use Class:

C3 1 days

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

Population within 1 mile:

20,001 to 25,000 1 days

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

Secondary Filtering selection (Cont.):

Population within 5 miles:

125,001 to 250,000 1 days

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

Car ownership within 5 miles:

1.1 to 1.5 1 days

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

Travel Plan:

Yes 1 days

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

PTAL Rating:

No PTAL Present 1 days

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

LIST OF SITES relevant to selection parameters

1	SC-03-M-06	HOUSES & FLATS	SURREY
	ST ANNE'S DRIVE		
	REDHILL		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	500	
	Survey date: WEDNESDAY	11/12/13	Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING
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	1	500	0.028	1	500	0.148	1	500	0.176
08:00 - 09:00	1	500	0.100	1	500	0.280	1	500	0.380
09:00 - 10:00	1	500	0.090	1	500	0.104	1	500	0.194
10:00 - 11:00	1	500	0.072	1	500	0.100	1	500	0.172
11:00 - 12:00	1	500	0.068	1	500	0.076	1	500	0.144
12:00 - 13:00	1	500	0.086	1	500	0.106	1	500	0.192
13:00 - 14:00	1	500	0.072	1	500	0.088	1	500	0.160
14:00 - 15:00	1	500	0.068	1	500	0.114	1	500	0.182
15:00 - 16:00	1	500	0.178	1	500	0.126	1	500	0.304
16:00 - 17:00	1	500	0.144	1	500	0.064	1	500	0.208
17:00 - 18:00	1	500	0.186	1	500	0.052	1	500	0.238
18:00 - 19:00	1	500	0.180	1	500	0.052	1	500	0.232
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		1.272			1.310				2.582

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

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

Calculation Reference: AUDIT-236601-180601-0645

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02 SOUTH EAST
 WS WEST SUSSEX 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: 214 to 214 (units:)
 Range Selected by User: 214 to 214 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 08/05/14

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

Selected survey days:

Thursday 1 days

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

Selected survey types:

Manual count 1 days
 Directional ATC Count 0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre) 1

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

Selected Location Sub Categories:

Residential Zone 1

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

Secondary Filtering selection:

Use Class:

C3 1 days

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

Population within 1 mile:

15,001 to 20,000 1 days

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

Secondary Filtering selection (Cont.):

Population within 5 miles:

50,001 to 75,000

1 days

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

Car ownership within 5 miles:

1.1 to 1.5

1 days

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

Travel Plan:

Yes

1 days

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

PTAL Rating:

No PTAL Present

1 days

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

LIST OF SITES relevant to selection parameters

1	WS-03-M-04	HOUSES & FLATS	WEST SUSSEX
	SUMMERSDALE ROAD		
	CHICHESTER		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	214	
	Survey date: THURSDAY	08/05/14	Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING
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	1	214	0.056	1	214	0.229	1	214	0.285
08:00 - 09:00	1	214	0.131	1	214	0.294	1	214	0.425
09:00 - 10:00	1	214	0.112	1	214	0.140	1	214	0.252
10:00 - 11:00	1	214	0.098	1	214	0.112	1	214	0.210
11:00 - 12:00	1	214	0.112	1	214	0.112	1	214	0.224
12:00 - 13:00	1	214	0.084	1	214	0.112	1	214	0.196
13:00 - 14:00	1	214	0.079	1	214	0.103	1	214	0.182
14:00 - 15:00	1	214	0.089	1	214	0.103	1	214	0.192
15:00 - 16:00	1	214	0.196	1	214	0.103	1	214	0.299
16:00 - 17:00	1	214	0.206	1	214	0.178	1	214	0.384
17:00 - 18:00	1	214	0.238	1	214	0.140	1	214	0.378
18:00 - 19:00	1	214	0.196	1	214	0.150	1	214	0.346
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.597			1.776			3.373

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 CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02 SOUTH EAST
WS WEST SUSSEX 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: 192 to 192 (units:)
Range Selected by User: 192 to 192 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 27/04/16

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:

Wednesday 1 days

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

Selected survey types:

Manual count 1 days
Directional ATC Count 0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre) 1

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

Selected Location Sub Categories:

Residential Zone 1

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

Secondary Filtering selection:

Use Class:

C3 1 days

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

Population within 1 mile:

25,001 to 50,000 1 days

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

Secondary Filtering selection (Cont.):

Population within 5 miles:

125,001 to 250,000 1 days

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

Car ownership within 5 miles:

1.1 to 1.5 1 days

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

Travel Plan:

Yes 1 days

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

PTAL Rating:

No PTAL Present 1 days

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

LIST OF SITES relevant to selection parameters

1	WS-03-M-12	HOUSES & FLATS	WEST SUSSEX
	UPPER SHOREHAM ROAD		
	SHOREHAM BY SEA		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:		192
	Survey date: WEDNESDAY		27/04/16
	Survey Type: MANUAL		

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

TRIP RATE for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING
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	1	192	0.052	1	192	0.297	1	192	0.349
08:00 - 09:00	1	192	0.099	1	192	0.333	1	192	0.432
09:00 - 10:00	1	192	0.078	1	192	0.151	1	192	0.229
10:00 - 11:00	1	192	0.104	1	192	0.151	1	192	0.255
11:00 - 12:00	1	192	0.099	1	192	0.099	1	192	0.198
12:00 - 13:00	1	192	0.182	1	192	0.172	1	192	0.354
13:00 - 14:00	1	192	0.167	1	192	0.135	1	192	0.302
14:00 - 15:00	1	192	0.115	1	192	0.109	1	192	0.224
15:00 - 16:00	1	192	0.198	1	192	0.141	1	192	0.339
16:00 - 17:00	1	192	0.219	1	192	0.135	1	192	0.354
17:00 - 18:00	1	192	0.359	1	192	0.151	1	192	0.510
18:00 - 19:00	1	192	0.224	1	192	0.141	1	192	0.365
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		1.896			2.015			3.911	

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.

Calculation Reference: AUDIT-236601-180607-0625

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02 SOUTH EAST
 SC SURREY 2 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: 199 to 500 (units:)
 Range Selected by User: 199 to 500 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 11/12/13

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

Selected survey days:

Wednesday 1 days
 Thursday 1 days

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

Selected survey types:

Manual count 2 days
 Directional ATC Count 0 days

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

Selected Locations:

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

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

Selected Location Sub Categories:

Residential Zone 2

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

Secondary Filtering selection:

Use Class:

C3 2 days

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

Population within 1 mile:

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

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

LIST OF SITES relevant to selection parameters

1	SC-03-M-06	HOUSES & FLATS	SURREY
	ST ANNE'S DRIVE		
	REDHILL		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	500	
	Survey date: WEDNESDAY	11/12/13	Survey Type: MANUAL
2	SC-03-M-07	HOUSES/FLATS	SURREY
	EPSOM ROAD		
	GUILDFORD		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	199	
	Survey date: THURSDAY	24/10/13	Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING VEHICLES
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	350	0.031	2	350	0.134	2	350	0.165
08:00 - 09:00	2	350	0.084	2	350	0.275	2	350	0.359
09:00 - 10:00	2	350	0.093	2	350	0.134	2	350	0.227
10:00 - 11:00	2	350	0.064	2	350	0.113	2	350	0.177
11:00 - 12:00	2	350	0.067	2	350	0.082	2	350	0.149
12:00 - 13:00	2	350	0.067	2	350	0.084	2	350	0.151
13:00 - 14:00	2	350	0.076	2	350	0.086	2	350	0.162
14:00 - 15:00	2	350	0.067	2	350	0.092	2	350	0.159
15:00 - 16:00	2	350	0.160	2	350	0.104	2	350	0.264
16:00 - 17:00	2	350	0.166	2	350	0.084	2	350	0.250
17:00 - 18:00	2	350	0.195	2	350	0.064	2	350	0.259
18:00 - 19:00	2	350	0.207	2	350	0.069	2	350	0.276
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.277			1.321			2.598

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 C

PRIMARY SCHOOL FIRST PRINCIPLES ASSESSMENT

Primary School - 2-Form Entry

420 Pupils (Assume 210 pupils per 1 form-entry)

50 Staff

25 Staff Car Parking Space 1 space per 2 staff

Traffic Generation

Staff

Table 2: Primary School Peak Period Traffic Generation – Proportion: Staff Only

Time	Arrivals	Departures
AM Period		
0700-0800	33%	0%
0800-0900	67%	0%
0900-1000	0%	0%
PM Period		
1600-1700	0%	67%
1700-1800	0%	33%
1800-1900	0%	0%

0% Proportion of primary school jobs that are filled by future residents on the site

Table 3: Primary School Peak Period Traffic Generation – Staff Only

Time	Arrivals	Departures	Two-Way
AM Period			
0700-0800	8	0	8
0800-0900	17	0	17
0900-1000	0	0	0
PM Period			
1600-1700	0	17	17
1700-1800	0	8	8
1800-1900	0	0	0

Internal

0.25 Expected primary school age pupil yield 25 children per 100 houses Ref: WSCC

100.0% Proportion of qualifying houses

1,500 No. of houses proposed on site

375 No. of primary school children generated

100% Proportion of primary school children residing on site attending the proposed school on-site

375 No. of children attending primary school residing within the new development

20% Proportion of primary school car trips by car (Ref: Table NTS0614 'Trips to school by main mode, trip length and age: England, 2015', National Travel Survey 2016, under 1 mile)

75 Pupil arrivals by car

1.50 Average no. of pupils per car

Table 4: Primary School Peak Period Traffic Generation – Proportion: Pupils (Escort Education)

Time	Arrivals	Departures
AM Peak Period		
0700-0800	0%	0%
0800-0900	100%	75%
0900-1000	0%	25%
PM Peak Period		
1600-1700	0%	0%
1700-1800	0%	20%
1800-1900	0%	15%

Table 5: Primary School Peak Period Traffic Generation – Pupils (Escort Education) - Internal

Time	Arrivals	Departures	Two-Way
AM Peak Period			
0700-0800	0	0	0
0800-0900	50	38	88
0900-1000	0	12	12
PM Peak Period			
1600-1700	0	0	0
1700-1800	0	10	10
1800-1900	0	8	8

External

45 No. of children attending primary school residing off-site

60% Proportion of primary school car trips by car (Ref: Table NTS0614 'Trips to school by main mode, trip length and age: England, 2015', National Travel Survey 2016, under 1 mile)
(Ref: Review of the existing mode of travel to school for primary school agreed children at Aldingbourne Primary and calculation of weighted average)

1.50 Average no. of pupils per car

Table 6: Primary School Peak Period Traffic Generation – Pupils (Escort Education) - External

Time	Arrivals	Departures	Two-Way
AM Peak Period			
0700-0800	0	0	0
0800-0900	18	14	32
0900-1000	0	4	4
PM Peak Period			
1600-1700	0	0	0
1700-1800	0	4	4
1800-1900	0	3	3

Total

Table 7: Primary School Garden Gate Traffic Generation (Pupils - Internal and External)

Time	Arrivals	Departures	Two-Way
AM Peak Period			
0700-0800	0	0	0
0800-0900	68	52	120
0900-1000	0	16	16
PM Peak Period			
1600-1700	0	0	0
1700-1800	0	14	14
1800-1900	0	10	10

Table 8: Primary School Peak Period Traffic Generation Staff and Pupils (Internal and External)

Time	Arrivals	Departures	Two-Way
AM Peak Period			
0700-0800	8	0	8
0800-0900	85	52	137
0900-1000	0	16	16
PM Peak Period			
1600-1700	0	17	17
1700-1800	0	22	22
1800-1900	0	10	10

29.0% Weighted average proportion of primary school car trips by car

Internal Escort Education Trips to be Deducted from the Garden Gate Residential Traffic Generation

34% Proportion of car driver trips to school that continue onto work or another destination (Ref: NTS0408 Purpose of next trip by gender and previous trip, National Travel Survey 2016)

Table 9: Internal Escort Education Trips to be Deducted from the Garden Gate Residential Traffic Generation – AM Peak Hour

Time	Traffic Generation		
	Arrivals	Departures	Total
Primary School Garden Gate Traffic Generation	68	52	120
Pupils Off-Site	-18	-14	-32
Initial Internal Escort Education Trips	50	38	88

Table 10: Internal Escort Education Trips to be Deducted from the Garden Gate Residential Traffic Generation – PM Peak Hour

Time	Traffic Generation		
	Arrivals	Departures	Total
Primary School Garden Gate Traffic Generation	0	14	0
Pupils Off-Site	0	-4	-4
Initial Internal Escort Education Trips	0	10	10

Note: an arrival at the ancillary land uses is a departure from a dwelling

Table 11: Residential Traffic Generation – Internal Escort Education Trips to be Deducted from the Garden Gate Residential Traffic Generation

Time	Traffic Generation		
	Arrivals	Departures	Total
AM Peak Hour	-25	-33	-58
PM Peak Hour	0	-7	-7

APPENDIX D

SECONDARY SCHOOL FIRST PRINCIPLES ASSESSMENT

Secondary School - 6-Form Entry

1500 Pupils (Assume 150 pupils per 1 form-entry)

150 Staff

Assume 10% Staff (TRICS)

75 Staff Car Parking Space 1 space per 2 staff (Source: WSCC County Parking Standards)

Traffic Generation

Staff

Table 2: Secondary School Peak Period Traffic Generation – Proportion: Staff Only

Time	Arrivals	Departures
AM Period		
0700-0800	33%	0%
0800-0900	67%	0%
0900-1000	0%	0%
PM Period		
1600-1700	0%	67%
1700-1800	0%	33%
1800-1900	0%	0%

0% Proportion of Secondary school jobs that are filled by future residents on the site

Table 3: Secondary School Peak Period Traffic Generation – Staff Only

Time	Arrivals	Departures	Two-Way
AM Period			
0700-0800	25	0	25
0800-0900	50	0	50
0900-1000	0	0	0
PM Period			
1600-1700	0	50	50
1700-1800	0	25	25
1800-1900	0	0	0

Internal

0.13 Expected Secondary school age pupil yield 13 children per 100 houses (source: WSCC)

100.0% Proportion of qualifying houses

1,500 No. of houses proposed on site

195 No. of Secondary school children generated

100% Proportion of Secondary school children residing on site attending the proposed school on-site

195 No. of children attending Secondary school residing within the new development

8% Proportion of Secondary school car trips by car (Ref: Table NTS0614 ‘Trips to school by main mode, trip length and age: England, 2015’, National Travel Survey 2016, under 1 mile)

16 Pupil arrivals by car

1.50 Average no. of pupils per car

Table 4: Secondary School Peak Period Traffic Generation – Proportion: Pupils (Escort Education)

Time	Arrivals	Departures
AM Peak Period		
0700-0800	0%	0%
0800-0900	100%	75%
0900-1000	0%	25%
PM Peak Period		
1600-1700	0%	20%
1700-1800	0%	15%
1800-1900	0%	0%

Table 5: Secondary School Peak Period Traffic Generation – Pupils (Escort Education) - Internal

Time	Arrivals	Departures	Two-Way
AM Peak Period			
0700-0800	0	0	0
0800-0900	10	8	18
0900-1000	0	3	3
PM Peak Period			
1600-1700	0	2	2
1700-1800	0	2	2
1800-1900	0	0	0

30 pupils per form
10 per year (FE)
5 years yr 7-11
1500

APPENDIX E

TRICS DATA - EMPLOYMENT

Calculation Reference: AUDIT-236601-180524-0508

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : C - INDUSTRIAL UNIT
VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	HC HAMPSHIRE	1 days
	RE READING	1 days
03	SOUTH WEST	
	BR BRISTOL CITY	1 days
	DV DEVON	2 days
04	EAST ANGLIA	
	SF SUFFOLK	1 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
06	WEST MIDLANDS	
	HE HEREFORDSHIRE	1 days
	WM WEST MIDLANDS	1 days
08	NORTH WEST	
	CH CHESHIRE	1 days
09	NORTH	
	TW TYNE & WEAR	1 days

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

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: Gross floor area
Actual Range: 645 to 20000 (units: sqm)
Range Selected by User: 300 to 43325 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 06/07/17

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

Selected survey days:

Tuesday	4 days
Wednesday	1 days
Thursday	5 days
Friday	1 days

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

Selected survey types:

Manual count	11 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	8

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:

Industrial Zone	10
Commercial Zone	1

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

Secondary Filtering selection:

Use Class:

B1	6 days
B2	5 days

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

Population within 1 mile:

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

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

Population within 5 miles:

50,001 to 75,000	1 days
75,001 to 100,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	5 days
250,001 to 500,000	3 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	3 days
1.1 to 1.5	7 days

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

Travel Plan:

No	11 days
----	---------

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

PTAL Rating:

No PTAL Present	11 days
-----------------	---------

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

LIST OF SITES relevant to selection parameters

1	BR-02-C-02	STAINLESS FITTINGS	BRISTOL CITY
	SOUTH LIBERTY LANE		
	BRISTOL		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:		1475 sqm
	Survey date: TUESDAY		22/09/15
2	CH-02-C-02	INDUSTRIAL MATERIALS	CHESHIRE
	JUPITER DRIVE		
	CHESTER W. EMP. PARK		
	CHESTER		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:		8100 sqm
	Survey date: WEDNESDAY		19/11/14
3	DS-02-C-02	ENGINEERED PRODUCTS	DERBYSHIRE
	PONTEFRACT STREET		
	DERBY		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:		2600 sqm
	Survey date: THURSDAY		25/06/15
4	DV-02-C-01	TUBE MANUFACTURE	DEVON
	PLYMBRIDGE ROAD		
	ESTOVER		
	PLYMOUTH		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:		20000 sqm
	Survey date: TUESDAY		17/07/12
5	DV-02-C-02	ENERGY RECOVERY FACILITY	DEVON
	GRACE ROAD SOUTH		
	MARSH BARTON TRAD. EST.		
	EXETER		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:		3513 sqm
	Survey date: THURSDAY		06/07/17
6	HC-02-C-01	ENGINEERING COMPANY	HAMPSHIRE
	JAYS CLOSE		
	BASINGSTOKE		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:		3000 sqm
	Survey date: THURSDAY		16/06/16
7	HE-02-C-02	THERMAL PROCESSING	HEREFORDSHIRE
	COLLEGE ROAD		
	BURCOTT		
	HEREFORD		
	Edge of Town		
	Commercial Zone		
	Total Gross floor area:		1880 sqm
	Survey date: TUESDAY		22/10/13
8	RE-02-C-01	SHEET METAL FABRICATION	READING
	COMMERCIAL ROAD		
	READING		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:		645 sqm
	Survey date: THURSDAY		22/11/12
9	SF-02-C-01	JOINERY	SUFFOLK
	ANSON ROAD		
	MARTLESHAM HEATH		
	IPSWICH		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:		1100 sqm
	Survey date: FRIDAY		12/07/13
			Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

10	TW-02-C-01	INDUSTRIAL UNIT	TYNE & WEAR
	SHAFTESBURY AVENUE		
	TYNE POINT IND. ESTATE		
	JARROW		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	950 sqm	
	Survey date: THURSDAY	15/11/12	Survey Type: MANUAL
11	WM-02-C-03	INDUSTRIAL GLASS	WEST MIDLANDS
	DOWNING STREET		
	SMETHWICK		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	5070 sqm	
	Survey date: TUESDAY	06/11/12	Survey Type: MANUAL

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	4394	0.261	11	4394	0.050	11	4394	0.311
08:00 - 09:00	11	4394	0.257	11	4394	0.079	11	4394	0.336
09:00 - 10:00	11	4394	0.203	11	4394	0.110	11	4394	0.313
10:00 - 11:00	11	4394	0.120	11	4394	0.106	11	4394	0.226
11:00 - 12:00	11	4394	0.093	11	4394	0.095	11	4394	0.188
12:00 - 13:00	11	4394	0.134	11	4394	0.147	11	4394	0.281
13:00 - 14:00	11	4394	0.246	11	4394	0.163	11	4394	0.409
14:00 - 15:00	11	4394	0.114	11	4394	0.217	11	4394	0.331
15:00 - 16:00	11	4394	0.083	11	4394	0.143	11	4394	0.226
16:00 - 17:00	11	4394	0.056	11	4394	0.275	11	4394	0.331
17:00 - 18:00	11	4394	0.037	11	4394	0.219	11	4394	0.256
18:00 - 19:00	11	4394	0.023	11	4394	0.134	11	4394	0.157
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.627			1.738			3.365

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:	645 - 20000 (units: sqm)
Survey date date range:	01/01/10 - 06/07/17
Number of weekdays (Monday-Friday):	11
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. 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 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

TAXIS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	4394	0.000	11	4394	0.000	11	4394	0.000
08:00 - 09:00	11	4394	0.000	11	4394	0.000	11	4394	0.000
09:00 - 10:00	11	4394	0.002	11	4394	0.002	11	4394	0.004
10:00 - 11:00	11	4394	0.004	11	4394	0.004	11	4394	0.008
11:00 - 12:00	11	4394	0.004	11	4394	0.004	11	4394	0.008
12:00 - 13:00	11	4394	0.000	11	4394	0.000	11	4394	0.000
13:00 - 14:00	11	4394	0.000	11	4394	0.000	11	4394	0.000
14:00 - 15:00	11	4394	0.002	11	4394	0.002	11	4394	0.004
15:00 - 16:00	11	4394	0.000	11	4394	0.000	11	4394	0.000
16:00 - 17:00	11	4394	0.000	11	4394	0.000	11	4394	0.000
17:00 - 18:00	11	4394	0.000	11	4394	0.000	11	4394	0.000
18:00 - 19:00	11	4394	0.002	11	4394	0.002	11	4394	0.004
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.014			0.014			0.028

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:	645 - 20000 (units: sqm)
Survey date range:	01/01/10 - 06/07/17
Number of weekdays (Monday-Friday):	11
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	4394	0.017	11	4394	0.012	11	4394	0.029
08:00 - 09:00	11	4394	0.031	11	4394	0.025	11	4394	0.056
09:00 - 10:00	11	4394	0.039	11	4394	0.037	11	4394	0.076
10:00 - 11:00	11	4394	0.023	11	4394	0.031	11	4394	0.054
11:00 - 12:00	11	4394	0.023	11	4394	0.027	11	4394	0.050
12:00 - 13:00	11	4394	0.046	11	4394	0.052	11	4394	0.098
13:00 - 14:00	11	4394	0.039	11	4394	0.029	11	4394	0.068
14:00 - 15:00	11	4394	0.014	11	4394	0.008	11	4394	0.022
15:00 - 16:00	11	4394	0.012	11	4394	0.017	11	4394	0.029
16:00 - 17:00	11	4394	0.008	11	4394	0.021	11	4394	0.029
17:00 - 18:00	11	4394	0.000	11	4394	0.000	11	4394	0.000
18:00 - 19:00	11	4394	0.002	11	4394	0.000	11	4394	0.002
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.254			0.259			0.513

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:	645 - 20000 (units: sqm)
Survey date date range:	01/01/10 - 06/07/17
Number of weekdays (Monday-Friday):	11
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

i-Transport Grove House Basingstoke

Licence No: 236601

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

PSVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	4394	0.000	11	4394	0.000	11	4394	0.000
08:00 - 09:00	11	4394	0.000	11	4394	0.000	11	4394	0.000
09:00 - 10:00	11	4394	0.002	11	4394	0.002	11	4394	0.004
10:00 - 11:00	11	4394	0.002	11	4394	0.000	11	4394	0.002
11:00 - 12:00	11	4394	0.000	11	4394	0.002	11	4394	0.002
12:00 - 13:00	11	4394	0.002	11	4394	0.002	11	4394	0.004
13:00 - 14:00	11	4394	0.000	11	4394	0.000	11	4394	0.000
14:00 - 15:00	11	4394	0.000	11	4394	0.000	11	4394	0.000
15:00 - 16:00	11	4394	0.000	11	4394	0.000	11	4394	0.000
16:00 - 17:00	11	4394	0.000	11	4394	0.000	11	4394	0.000
17:00 - 18:00	11	4394	0.000	11	4394	0.000	11	4394	0.000
18:00 - 19:00	11	4394	0.000	11	4394	0.000	11	4394	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.006			0.006			0.012

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:	645 - 20000 (units: sqm)
Survey date date range:	01/01/10 - 06/07/17
Number of weekdays (Monday-Friday):	11
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. 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 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	4394	0.019	11	4394	0.000	11	4394	0.019
08:00 - 09:00	11	4394	0.004	11	4394	0.000	11	4394	0.004
09:00 - 10:00	11	4394	0.002	11	4394	0.000	11	4394	0.002
10:00 - 11:00	11	4394	0.000	11	4394	0.000	11	4394	0.000
11:00 - 12:00	11	4394	0.000	11	4394	0.000	11	4394	0.000
12:00 - 13:00	11	4394	0.000	11	4394	0.002	11	4394	0.002
13:00 - 14:00	11	4394	0.004	11	4394	0.004	11	4394	0.008
14:00 - 15:00	11	4394	0.008	11	4394	0.012	11	4394	0.020
15:00 - 16:00	11	4394	0.000	11	4394	0.002	11	4394	0.002
16:00 - 17:00	11	4394	0.000	11	4394	0.021	11	4394	0.021
17:00 - 18:00	11	4394	0.002	11	4394	0.010	11	4394	0.012
18:00 - 19:00	11	4394	0.000	11	4394	0.008	11	4394	0.008
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.039			0.059			0.098

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:	645 - 20000 (units: sqm)
Survey date date range:	01/01/10 - 06/07/17
Number of weekdays (Monday-Friday):	11
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

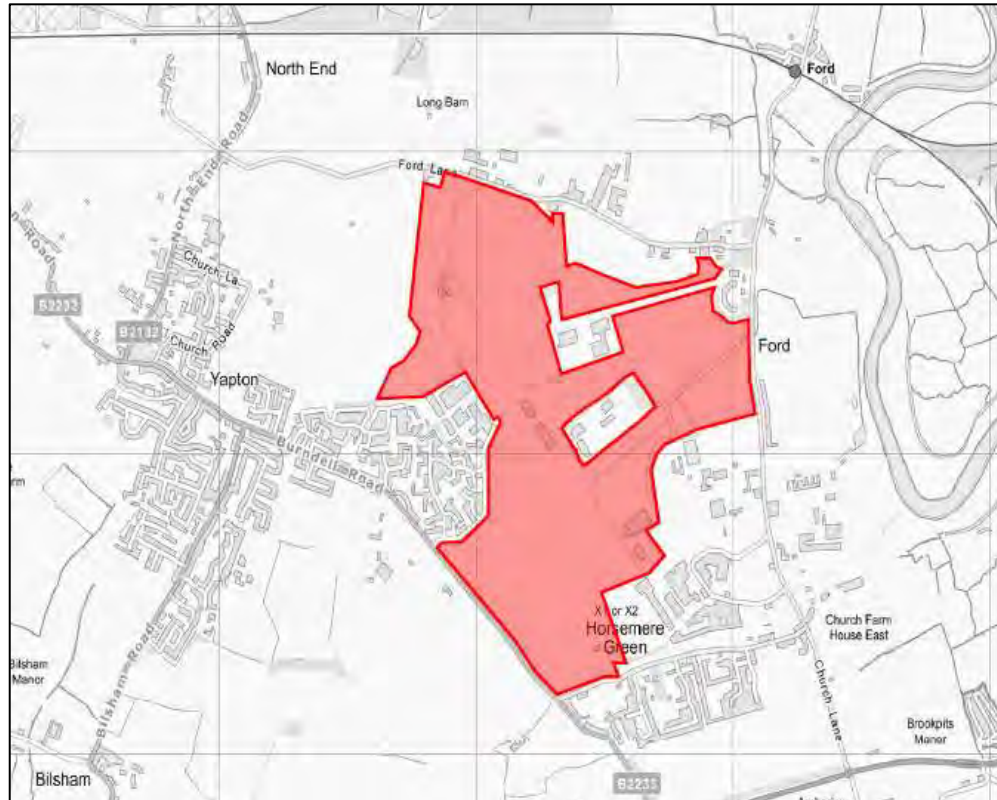
TECHNICAL NOTE

Project No: ITB13091
Project Title: Ford Airfield
Title: Traffic Distribution and Assignment
Ref: JCB/DS/EF/ITB13091-008 TN
Date: 31 July 2018

SECTION 1 INTRODUCTION

- 1.1 Wates Developments Limited and Redrow Homes Limited have appointed i-Transport to provide highway and transport advice to support the proposed development at Ford Airfield, West Sussex.
- 1.2 The site is identified as Strategic Site Allocation SD8 in the Arun District Council (ADC) Local Plan 2011-2031 (publication version showing modifications dated March 2017). Ford Airfield is also allocated in the Submission Ford Neighbourhood Plan as Policy SA1. The location of the site is shown in Image 1.1, below.

Image 1.1: Site Location Plan



- 1.3 The redevelopment of the former airfield comprises 1,500 new homes, a local centre, a primary school, employment and a number of sport and recreation facilities. Discussions are ongoing with West Sussex County Council (WSSC) and Arun District Council (ADC) regarding the possibility of a new secondary school, required to accommodate demand for education arising from planned growth, being provided within the site.
- 1.4 This note sets out the proposed methodology for the distribution and assignment of traffic generated by the proposed development at Ford Airfield for discussion and agreement with WSSC. This note forms part of a wider series of notes in order to reach agreement on assessment parameters to inform the Transport Assessment.
- 1.5 The remainder of this Technical Note is structured as follows:
- Section 2 - Residential Distribution and Assignment;
 - Section 3 - Employment Distribution and Assignment;
 - Section 4 - Education Distribution and Assignment; and
 - Section 5 - Summary and Conclusions.

SECTION 2 RESIDENTIAL DISTRIBUTION AND ASSIGNMENT

2.1 Journey Purpose

- 2.1.1 Data derived from the National Travel Survey (NTS) 2015 (DfT) provides the proportion of peak hour trips made by car, split into journey purpose. The summary results are presented in Table 2.1.

Table 2.1: Proportion of Peak Hour Trips by Journey Purpose (Car Driver Only)

Trip Purpose	AM Peak (0800-0900)	PM Peak (1700-1800)
Commuting/Business	40%	45%
All Other Journey Purposes	60%	55%
Total	100%	100%

Source: Table 8.2 Trip start time by time of day and trip purpose (Monday to Friday only), Car driver: 2010/14, National Travel Survey, DfT, 2015

- 2.1.2 The analysis demonstrates that 40% of the total residential vehicular trips in the morning peak hour period are likely to be employment journeys. The remaining 60% of the vehicle trips are likely to be for other purposes including education, shopping, leisure and personal business. In the evening peak hour, the proportion of employment related journeys accounts for 45% of all trips, whilst other journeys comprise the remaining 55%.
- 2.1.3 For the purposes of this assessment, the analysis has been undertaken using the evening peak hour proportional split. This is a worst-case appraisal as employment journeys, on average, are longer and therefore likely to have a greater impact on the wider highway network.

2.2 Methodology

- 2.2.1 In order to provide an accurate assessment of the likely distribution of traffic from the site, separate methodologies have been applied to consider the destinations of commuting and business trips to other trip purposes:

- For commuting and business trips, the 2011 National Census Journey to Work statistics (for car drivers) for the Arun 006 Super Output Area have been used. This dataset identifies existing resident's employment locations and, therefore, existing commuting patterns; and

- For other journey purpose trips, a P/T^2 gravity model has been undertaken using the population of key urban areas (from the 2011 Census) within a 35-minute drive time of the site. The use of 35 minutes enables the inclusion of Chichester, as well as Yapton, Barnham, Westergate, Littlehampton, Tangmere, North Bersted, Bognor Regis and Arundel.

2.2.2 The two sets of data have then been combined to generate a single set of distribution parameters to inform the development trip assignment. The combined data is set out in Table 2.2 with the Census analysis included in Appendix A and Gravity Model in Appendix B.

Table 2.2: Distribution of Car Drivers

Destination	Work 45%	Non-Work 55%	Total Combined
Angmering	1.3%		1.3%
Arundel	1.8%	0.7%	2.6%
Basingstoke	0.1%		0.1%
Bognor Regis	4.5%	8.7%	13.2%
Brighton	0.5%		0.5%
Burgess Hill	0.2%		0.2%
Chichester	9.4%	8.2%	17.6%
Crawley	0.7%		0.7%
East Grinstead	0.1%		0.1%
Eastergate/Barnham/Westergate	2.6%	6.4%	9.0%
Eastleigh	0.2%		0.2%
Fareham	0.3%		0.3%
Felpham	1.1%		1.1%
Ferring	0.2%		0.2%
Ford / Yapton	3.8%	10.7%	14.5%
Hastings	0.1%		0.1%
Havant	0.3%		0.3%
Haywards Heath	0.1%		0.1%
Horsham	1.3%		1.3%
Lancing	0.2%		0.2%
Lewes	0.3%		0.3%
Littlehampton	4.4%	16.9%	21.3%
London	0.8%		0.8%
North Bersted	1.9%	2.9%	4.8%
Other East	0.3%		0.3%
Other North	1.4%		1.4%
Other West	0.4%		0.4%
Portsmouth	0.6%		0.6%
Reading	0.0%		0.0%
Shoreham - by - Sea	0.4%		0.4%
Slough	0.0%		0.0%
Sompting	0.1%		0.1%
Southampton	0.1%		0.1%
Tangmere	1.7%	0.4%	2.1%
Winchester	0.1%		0.1%
Worthing	3.6%		3.6%
	45.0%	55.0%	100.0%

Source: 2011 Census / Gravity Model and Consultant Estimates

- 2.2.3 The assessment demonstrates that the greatest peak period travel demands will be to Ford/Yapton (14.5%), Littlehampton (21.3%), Bognor Regis (13.2%) and Chichester (17.6%).

- 2.2.1 It should be noted that, as part of Technical Note ITB13091-007 TN, the internalisation of movements between the residential and employment elements of the site was calculated, and the identified trips removed from the total trip generation of the site. Therefore, where 'Ford/Yapton' has been identified as a destination as part of the distribution assessment, all associated movements have been distributed to existing locations in Yapton/Ford that are external to the site (e.g. village hall etc).

2.3 Assignment

- 2.3.1 The residential trips generated by the site, as established in Technical Note ITB3091-007 TN, have been distributed onto the network to the destinations identified in Table 2.2.
- 2.3.2 It is expected that the residential element of the site will have two vehicular site accesses; an access onto Yapton Road on the western boundary, and a second access onto Ford Lane on the northern boundary. The most convenient and direct access to the destination has been used as a starting point for the assignment of journeys.
- 2.3.3 Trips have been assigned to the road network based on the quickest peak hour route (taken as 08:00) from the identified site access to the destination location using the Google Maps 'Directions' Facility.
- 2.3.4 Morning and evening peak hour traffic flow diagrams of the resulting distribution and assignment are provided in Figures 2.1 and 2.2, which can be found at the end of this Technical Note.

SECTION 3 EMPLOYMENT DISTRIBUTION AND ASSIGNMENT

3.1 Methodology

3.1.1 For the employment traffic, an approach similar to that used to consider the assignment of residential traffic has been used. Journey to Work Data from the 2011 Census has been obtained for the Arun 006 Mid Super Output Area. This data establishes employee residential origins.

3.1.2 This data has been used to forecast the origin and destination of employment trips. Table 3.1 summarises the main destinations that employees are travelling from, with the full analysis provided in Appendix C.

Table 3.1: Employees origins from 2011 Census Data – Arun 006

Destination	Total %
Littlehampton	20.5%
Bognor Regis	16.2%
Felpham	9.6%
Ford/ Yapton	9.6%
Chichester	9.3%
Worthing	9.3%
Eastergate	5.6%
Angmering	4.8%
Horsham	3.0%
Arundel	2.2%
Shoreham – by- Sea	1.4%
Brighton	1.1%
Ferring	0.7%
Havant	0.7%
Portsmouth	0.7%
Lancing	0.5%
Fareham	0.4%
Haywards Heath	0.4%
Sompting	0.4%
London	0.3%
Burgess Hill	0.3%
Other	3.0%
<i>Total</i>	<i>100.0%</i>

3.2 Assignment

3.2.1 The forecast traffic will be generated by the proposed employment uses on site, as established in Technical Note ITB13091-007 TN, has been distributed onto the network to the destinations identified in Table 3.1.

- 3.2.2 It is expected that the employment element of the site will be accessed from Ford Road. Trips have been assigned to the road network based on the quickest peak hour route (taken as 08:00) between the site access and the origin location using the Google Maps 'Directions' Facility.
- 3.2.3 Morning and evening peak hour traffic flow diagrams of the resulting employment distribution and assignment are provided in Figures 3.1 and 3.2, which can be found at the end of this Technical Note.

SECTION 4 EDUCATION DISTRIBUTION AND ASSIGNMENT

4.1 Pupils – Primary Education

4.1.1 As established in Technical Note ITB13091-007 TN, education escort trips are intrinsically included within the residential garden gate trip rates. As primary education is to be provided on-site, to cater for the demand for additional places in primary education, the level of internalisation between the new homes and the primary school has been calculated; these trips have been removed from the external trip generation of the site. As such, there are no external primary education trips to be assigned to the local network.

4.1.2 The residual capacity of the school, some 15%, is expected to be filled by pupils residing outside of the confines of the development. However, the provision of a school does not generate the pupils attending the site; rather, pupils are generated as a result of the growth of residential accommodation. As such, these movements are included within the background growth associated with the planned growth strategy. Therefore, the assignment of any further trips would result in 'double counting'.

4.2 Pupils – Secondary Education

4.2.1 There are ongoing discussions between Wates, Redrow, West Sussex County Council and Arun District Council as to whether secondary education is to be provided on-site, to cater for the demand for additional places in education generated by both the proposed development and the planned growth across the wider District area.

4.2.2 On this basis that secondary education is to be provided on site, and as education escort trips are intrinsically included within the residential trip generation, the number of internalised trips between the new homes on Ford Airfield and a potential secondary school has been calculated. These trips have been removed from the external residential trip generation of the site. As such, there are no external secondary education trips to be assigned to the local network.

4.2.3 The residual capacity of the school, some 1,305 pupils, is expected to be filled by pupils residing outside of the proposed development. However, the provision of a school does not generate the pupils, rather, pupils are generated as a result in the growth of residential accommodation. As such, these movements are included within the background growth associated with the planned growth strategy. Therefore, the assignment of any further trips would result in 'double counting'.

4.2.4 In the event that a secondary school is not provided within the site, the internalised trips will not be removed from the residential trip generation; these trips shall instead be distributed onto the local highway network external to the site. The assignment of these trips will be included will be undertaken in accordance with the residential assignment methodology set out in Section 2 of this Technical Note.

4.3 **Staff – Primary and Secondary**

4.3.1 The assignment of staff trips associated with the provision of education within the site (both primary and possible secondary), has been undertaken using the employment assignment methodology.

4.3.2 As the school/s will be located in the residential element of the development site, the trips have been assigned from the most convenient and direct residential access to the origin/destination.

4.3.3 Morning and evening peak hour traffic flow diagrams of the resulting distribution and assignment are provided in Figures 4.1 and 4.2, which can be found at the end of this Technical Note.

SECTION 5 SUMMARY

- 5.1 Wates Developments Limited and Redrow Homes Limited have appointed i-Transport to provide highway and transport advice to support the proposed development at Ford Airfield, West Sussex.
- 5.2 This note sets out the proposed methodology for the distribution and assignment of traffic generated by the proposed development at Ford Airfield for discussion and agreement with WSCC. This note forms part of a wider series of notes in order to reach agreement on assessment parameters to inform the Transport Assessment.
- 5.3 Separate methodologies have been applied to consider the destinations of commuting and business trips to other trip purposes from the residential element of the site. For commuting and business trips, the 2011 National Census Journey to Work statistics have been used, and for other journey purpose trips, a P/T^2 gravity model has been undertaken. This approach has been used by i-Transport in West Sussex (and elsewhere) for the last decade or so. This methodology for distributing and assigning residential trips was discussed in front of a planning inspector at the Bracklesham Inquiry (ref: APP/L3815/A/13/2192900) and found to be acceptable.
- 5.4 For the employment traffic, the assignment of trips has been undertaken utilising 2011 Census Journey to Work Data, which establishes employee residential origins.
- 5.5 The assignment of staff associated with the provision of education within the site (both primary and the possible secondary), has been undertaken using the employment assignment methodology.
- 5.6 The use of bespoke distribution and assignment methodologies for the various trip generating uses provides a site specific and robust means of assigning trips generated by the proposed development onto the highway network. Traffic Flow Diagrams of all traffic generated by the proposed development during the morning and evening peak hours are provided at Figures 5.1 and 5.2, at the end of this Technical Note.

FIGURES