Appendix TA - AD

CONSTRUCTION TRAFFIC MANAGEMENT PLAN

PUBLIC

The London Resort Company Holdings Ltd

THE LONDON RESORT

Construction Traffic Management Plan

CTMP
DECEMBER 2020

CONFIDENTIAL

The London Resort Company Holdings Ltd

THE LONDON RESORT

Construction Traffic Management Plan

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1 INTRODUCTION

1.1 BACKGROUND

1.1.1. This Construction Traffic Management Plan (CTMP) has been prepared by WSP on behalf of London Resort Company Holdings (LRCH) to support the Nationally Significant Infrastructure Project (NSIP) application for The London Resort, located in Swanscombe, Kent.

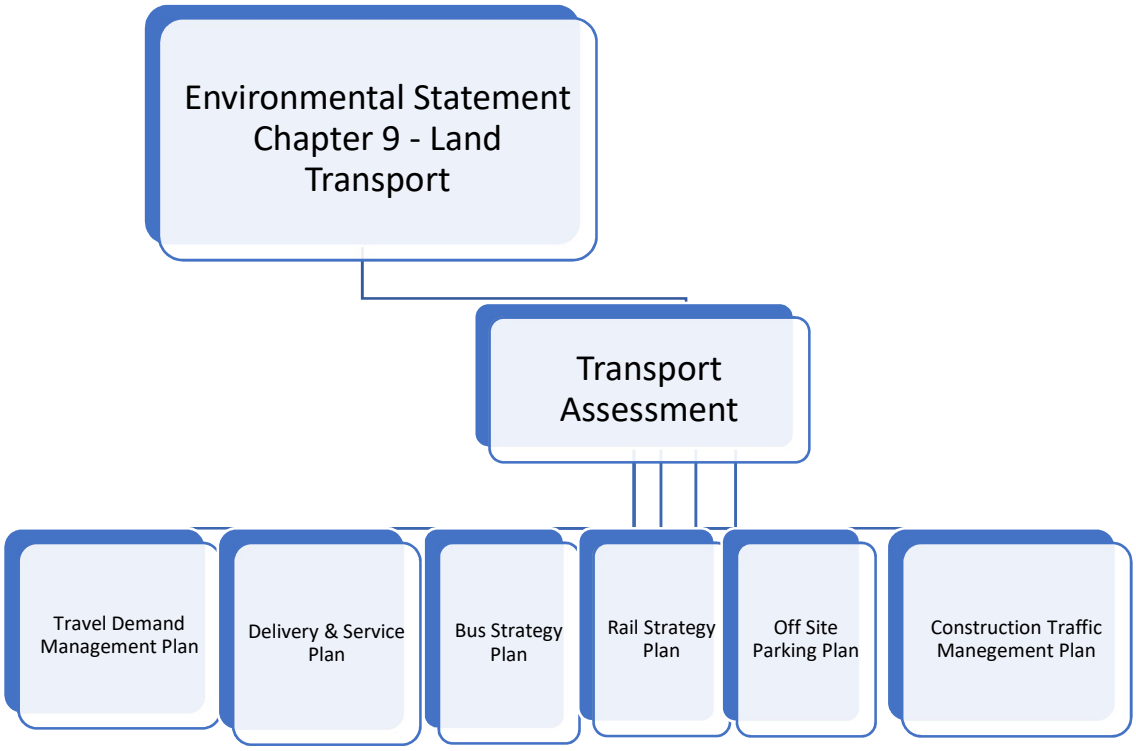
1.1.2. This CTMP provides a framework for the requirements for the management of transport impacts associated with the construction phases of the Proposed Development.

1.1.3. Once the principal contractor has been appointed there will be opportunity for them to review and adjust the measures set out within the CTMP in agreement with the local authorities within a final CTMP.

1.1.4. The document also outlines the likely impacts associated with the construction phase of the development through the peak Stage 1 phase before opening of Gate One in 2024 and peak Stage 2 prior to opening of Gate Two in 2029.

1.1.5. The CTMP is part of a suite of documents which address the transport impacts of the Proposed Development and identify where mitigation measures are required.

1.1.6. The suite of documents are headed up by the ES Chapter 9 – Land Transport (document reference 6.1.9). The following figure shows the relationship between the Land Transport Chapter of the ES, the Transport Assessment and the suite of transport management plans and strategies.



1.1.7. The ES Chapter 9 – Land Transport (document reference 6.1.9) addresses the environmental impacts associated with changes in traffic flow as a result of the Proposed Development. The Transport Assessment (TA) is included as an Appendix to this and considers the transport strategy for the construction and operation of the Proposed Development.

1.1.8. The TA is supported by additional transport documents. These are the Delivery & Servicing Plan (DSP), Construction Traffic Management Plan (CTMP) the Rail Strategy Plan (RSP), the Bus Strategy Plan (BSP), Off Site Parking Plan (OSPP) and the Travel Demand Management Plan (TDMP). The implementation of these documents will be secured either through the DCO Requirements or the Development Obligation. Copies of these Plans are provided as Appendices to the Transport Assessment.

1.1.9. The CTMP provides details on the requirements for the management of transport impacts associated with the construction phases of the Proposed Development. Once the principal contractor has been appointed there will be opportunity for them to review and adjust the CTMP in agreement with the local authorities. The RSP and BSP set out the strategy to provide rail and bus accessibility to the Proposed Development.

1.1.10. The OSPP sets out the measures proposed to monitor whether on street vehicular parking associated with the Proposed Development occurs on roads and streets surrounding the Site. This document also sets out the proposed strategy to be implemented in the event that on street parking attributed to The Resort is identified in order to prevent stress on the existing level of on street parking serving surrounding residential areas.

1.1.11. The TDMP outlines a comprehensive and flexible approach to managing the travel demands of key audiences that will travel to and from the Resort. Specifically, this focuses on travel demands associated with Resort visitors and those employed at the Resort (employees).

1.1.12. Finally, the DSP sets out the key requirements and management guidance for individual occupiers to follow and implement in terms of the delivery of goods and stock required by The Resort as well as the approach to servicing the Proposed Development once operational.

1.1.13. This CTMP should be read in conjunction with the overall Construction Method Statement (CMS). The CMS is the master document which encompasses the CTMP as well as a suit of other documents focusing on the construction phase, this presented in Table 1.1 of the CMS. The CMS provides details on the following:

- The key phases and indicative construction programme – outlines the indicative construction programme in respect of The London Resort and principal works phases;
- Site Preparation and removal works – describes the indicative construction methods used in respect of the Site preparation and clearance works;
- Main Construction Works – identifies the indicative construction methods used in respect of the main construction process;
- The removal of temporary structures – describes the indicative construction methods used in respect of the final stage of construction works, including the dismantling of temporary structures and landscape restoration works;
- Asset protection – describes the indicative measures to be adopted towards asset protection; and
- Health and safety – describes the indicative health and safety strategy for the construction of the London Resort.

1.2 DEVELOPMENT PROPOSALS

1.2.1. The proposals of the site are indicatively set out as follows;

- A multi-Intellectual Property (IP) global resort including leading brands related to film, television, electronic gaming and toys;
- Phased approach delivering two unique parks;
- The leisure core will comprise a range of events space, themes rides and attractions, entertainment venues, theatres and cinemas;
- Gate One and Gate Two will have entrance plazas offering ancillary Retail, Dining and Entertainment (RDE) facilities;
- Approximately 3,550 suites across four hotels providing family, upmarket, luxury and themed accommodation;
- A Waterpark incorporated within one of the on-site hotels;
- A 'conferention' centre, combined conference and convention facilities capable of hosting a wide range of entertainment, sporting, exhibition and business events;
- A linked building hosting a range of eSports, video and computer gaming events;
- Approximately 2,000 single units contained within 500 on-site dwellings for Resort workers;
- A phased approach to delivering a maximum of 10,000 visitor car park spaces, 25% of which (2,500 spaces) are proposed to be located in Tilbury;
- Visitors parking in Tilbury will access the Kent Project Site via the 'Park and Glide' ferry provision between the Port of Tilbury, a new pier on the Swanscombe peninsular; and
- People mover and transport interchange between Ebbsfleet International Railway Station, the London Resort jetty and the main entrance.

1.3 AGREED TERMINOLOGY

1.3.1. For clarity throughout this document, and the supporting appendices, the Project Site encompassing both sides of the River Thames will be referred to as 'The London Resort' or 'The Resort'. The area of the Project Site to the South of the River Thames is referred to in this document as the 'Kent Project Site' and that to the north of the River Thames is identified as the 'Essex Project Site'. The 'Leisure Core' refers to the range of events space, themed rides and attractions, entertainment venues, theatres and cinemas; 'Gate One and 'Gate Two' are the two phases of the leisure core.

1.4 SCOPE OF THE CTMP

1.4.1. This CTMP provides a framework as to how the construction traffic and site operations will be managed at The London Resort. The final document will be approved by Kent County Council and Thurrock Council as the relevant Local Highway Authority's for The London Resort Site, ahead of the relevant works commencing.

1.4.2. This CTMP provides a plan as to how the construction traffic and site operations will be managed at the London Resort. It will outline the hours of construction operation, requirements for traffic routing,

safe vehicular access, and manoeuvring which are all elements to reduce the traffic impacts during this phase of the Proposed Development. It is anticipated that during the peak construction period, up to circa 6,000 construction workers will be required each day at The London Resort. It is proposed that 25% of the construction workers will live on-site during the working week, with the remaining 75% being Daily Commuter construction workers. The CTMP will contain relevant details of:

- Vehicle routing plans;
- Proposed programme and duration;
- Number of construction personnel including travel arrangements and mitigation;
- Details of the number of construction and delivery vehicles using the public highway; and
- Traffic management details.

1.5 CTMP OBJECTIVES

1.5.1. The CTMP sets out the detailed measures that can be implemented to provide mitigation for construction traffic associated with The London Resort. The CTMP has the primary objective of minimising impact and disruption to existing users of the public highway network and the surrounding community, forming the framework within which all contractors are expected to work. This will be achieved by:

- Minimising the number of vehicular trips required for the movement of material and people;
- Ensuring construction traffic trips and routes used are planned to be safe, efficient and timely;
- Encouraging greater use of sustainable freight modes, such as river barge;
- Ensuring the impact to nearby residents, local sensitive receptors and the travelling public are minimised; and
- Encouraging the most efficient use of construction freight vehicles.

1.6 REPORT STRUCTURE

1.6.1. The following outlines the remaining structure of this CTMP:

- Section 2 – Site Facilities – outlines details the on-site car parking and the construction workers accommodation;
- Section 3 – Construction Logistics – provides details on the proposed construction routing, outlining the construction strategy between road and river transport, working hours, abnormal loads and construction worker movements;
- Section 4 – Construction Impact – outlines the impact of the construction traffic on the local highway network in 2023; and
- Section 5 – Summary and Conclusion – summarises the report and provides conclusions drawn from the analysis presented in this document.

2 SITE FACILITIES

2.1 INTRODUCTION

2.1.1. This section outlines the Construction Worker car parking arrangements for both the On-site Accommodation staff and Daily Commuter staff. The chapter also indicates the accommodation on offer to those workers staying on site during the construction phase.

2.1.2. The details in calculating the relevant parking numbers below are contained later in the document with Section 3.

2.2 CONSTRUCTION WORKERS – ACCOMMODATION

2.2.1. Chapter 3 provides details and a breakdown of the construction worker numbers, however, to inform the accommodation schedule it has been identified that the peak construction period for Gate 1 will see circa 6,000 construction workers on site. Of these workers, LRCH seek to accommodate approximately 25% on site during the week, equating to approximately 1,500 staff. It is currently expected that the staff on-site will be split between a suitable vessel located within the Port of Tilbury (PoT) for example a vessel or similar accommodating up to 1,000 workers and at the resort itself caravans or similar will be provided to accommodate around 500 staff.

2.2.2. The construction workers living on-site will operate on a different working schedule to those construction workers traveling to and from site each day. The on-site Accommodation Construction workers arrivals and departures will be restricted, with workers being able to leave the London Resort on Friday lunchtime to early afternoon (before 3pm) to return on Sunday evening for work the following week. This approach will reduce the impact on the highway network during key peak periods and will remove the need for an assessment of their travel patterns to be undertaken. It is anticipated that as this Framework document evolves after appointment of the principal contractor, further measures will be put in place in order to stagger construction workers on site to further reduce their impact on the highway network.

2.3 CONSTRUCTION WORKERS – CAR PARKING

RESIDING ON-SITE CONSTRUCTION WORKER

2.3.1. This Section details the car parking arrangements for those workers that will reside on-site and those arriving daily from off-site locations. It details the numbers of spaces provided and the occupancy of vehicles required for construction workers to park on-site. On-site Accommodation Construction Workers

2.3.2. The car parking for those construction workers residing on-site will be up to 150 spaces for the 1,500 construction workers residing On-Site and will be provided at the Port of Tilbury (PoT), during construction of Gate 1 of the construction period. This has been calculated based on the following assumptions:

- 1,000 of the construction workers residing on will be international staff, the international staff will be transferred to site via Public Transport or Coach from an International Airport or ferry terminal;
- the remaining 500 construction workers residing on-site will travel from further afield in the UK;
- 90% of the 500 UK workers who will reside on site will travel by car with an occupancy of 3 per vehicle, to account for 450 construction workers, equating to 150 vehicles;

- the final 50 construction workers will travel to the site via public transport; and
- during construction of Gate 2 of the construction period the car parking for workers on-site will drop to 75 spaces (through a reduction in construction worker operation);

2.3.3. Workers will only be able to park at the Car Park in Tilbury if there is an occupancy of a minimum of three workers per vehicle and will be managed through the final CTMP to be prepared by the principal contractor.

2.3.4. The potential location of the worker car park is to be located in the PoT, with the exact location subject to ongoing discussions. The on-site accommodation construction workers are likely to be travelling from further afield, potentially abroad, hence the requirement for them to live on site during the week and the need to accommodate high occupancy vehicles.

2.3.5. On-site accommodation construction workers travelling to the resort individually, will be encouraged to travel by public transport with rail fares subsidised.

DAILY COMMUTER CONSTRUCTION WORKERS

2.3.6. The on-site car parking during construction of Gate 1 for Daily Commuter construction workers will be split across sites north and south of the River Thames. This will accommodate both workers who reside on site and workers who travel daily.

- At the Kent Project site there will be circa 815 temporary car parking spaces available located on the Peninsular.
- The Essex Project Site will accommodate a 350-space car park, of which 200 car parking spaces will be for Daily Commuters with the remaining 150 spaces assigned to resident workers as explained earlier. LRCH will operate a ferry service that will depart from Tilbury to take construction workers from the north side of the river directly to The London Resort site.
- Whilst during construction of Gate 2 of the construction process the car parking at the Kent Project site will be reduced to circa 400 spaces (contained within car parking structures on site) and at the Essex Project Site it will reduce to circa 75 spaces.

2.3.7. The Daily Commuter construction workers will be required to have an occupancy of at least three workers per vehicle to utilise the site car park. If an occupancy of three workers cannot be attained workers will be required to travel to the site via public transport which will be subsidised.

2.3.8. Given the above, the peak car park capacity for construction workers is presented in Table 2-1. The Construction Worker car park capacity for Gate 2 will be significantly lower to take account of the reduction of Construction Workers required on-site which is likely to half.

Table 2-1 - Total Car Park Capacity across the Kent and Essex Project Sites for Construction Workers

	Car Park Capacity for Construction of Gate 1	Car Park Capacity for Construction of Gate 2
Kent Project Site	815	Crica 400
Essex Project Site	350	150
Total	1,165	Crica 550

3 CONSTRUCTION LOGISTICS

3.1 INTRODUCTION

3.1.1. This chapter outlines the construction activity, the construction traffic routes, the working hours for staff and the forecast construction worker movements.

3.2 CONSTRUCTION ROAD VS RIVER

3.2.1. The location of The London Resort presents an unique opportunity for the construction phase of the proposed Development. Based on calculations by Buro Happold the total amount of volume of material required for The London Resort is circa three / four million tonnes. As The London Resort is located on the River Thames a large proportion of the total volume of material will be taken to and from the Site via barge boats. During the construction process, LRCH will seek to bring up to 80% of material (arriving and departing) to the site via a barge. In highway terms therefore, it has been assumed that the remaining 20% will be by HGVs on the road network.

3.2.2. The split between river and road for construction materials being delivered to Tilbury will vary throughout the construction period. Until a principal contractor is appointed by LRCH it will be difficult to quantify the split. It has been assumed and assessed that a maximum of 150 HGVs per day to Tilbury during the construction period.

3.2.3. On this basis the peak construction time period set out in the Construction Management Strategy, equates to an average of five to six barge movements per day. If a Roll on Roll off (Ro-Ro) or larger barge was used the number of river movements would decrease. During the peak construction period the number of barges could increase to 10 barge movements per day. In terms of forecast HGV movements this is outlined in detail in Section 3.6.

3.3 CONSTRUCTION ROUTING STRATEGY

3.3.1. Vehicular access to the construction site will follow three levels of road hierarchy;

- Level 1 Strategic Road Network – These are roads managed by Highways England being motorways and trunk roads which provide access to the construction site from a wide catchment area to be distributed by the lower levels of roads;
- Level 2 Primary and Local Road Network – These roads are under the authority of Thurrock Council and Kent County Council, which will provide access from the Strategic Road Network to the Project Site's either side of the Thames; and
- Level 3 Access Road – There will be a temporary haul road from Ebbsfleet International to the site, this will follow the alignment of the people mover.

3.3.2. Taking account of the road hierarchy, all HGV construction traffic related to The London Resort will be required to use the M25 and M2 to access the A2 Ebbsfleet International Exit to access the Kent Project Site, while for the Essex Project Site construction traffic will be required to use the A1089 to access the Port of Tilbury. The final construction routing will be provided by the Principle Contractor but below presents an indicative approach for the construction routing. The construction vehicle routes from the A2 Ebbsfleet International Exit will depend on the completion of necessary access roads as outlined in further detail below.

HGV IMPACT REDUCTION

3.3.3. HGV movements to The London Resort will be restricted as follows to reduce impact on the nearby highway network.

CONSTRUCTION ROUTING

3.3.4. An assessment has been made of potential HGV routes to access The Kent and Essex Project sites and is detailed in the following sections. These routes will be communicated to all hauliers and managed / enforced by the contractor. Drivers will be required to adhere to all existing restrictions such as weight and height. Temporary signage will be utilised by the contractor to direct construction traffic to site compounds and site accesses. These will be agreed with the highway authorities.

Kent Project Site - Prior to completion of temporary haul road

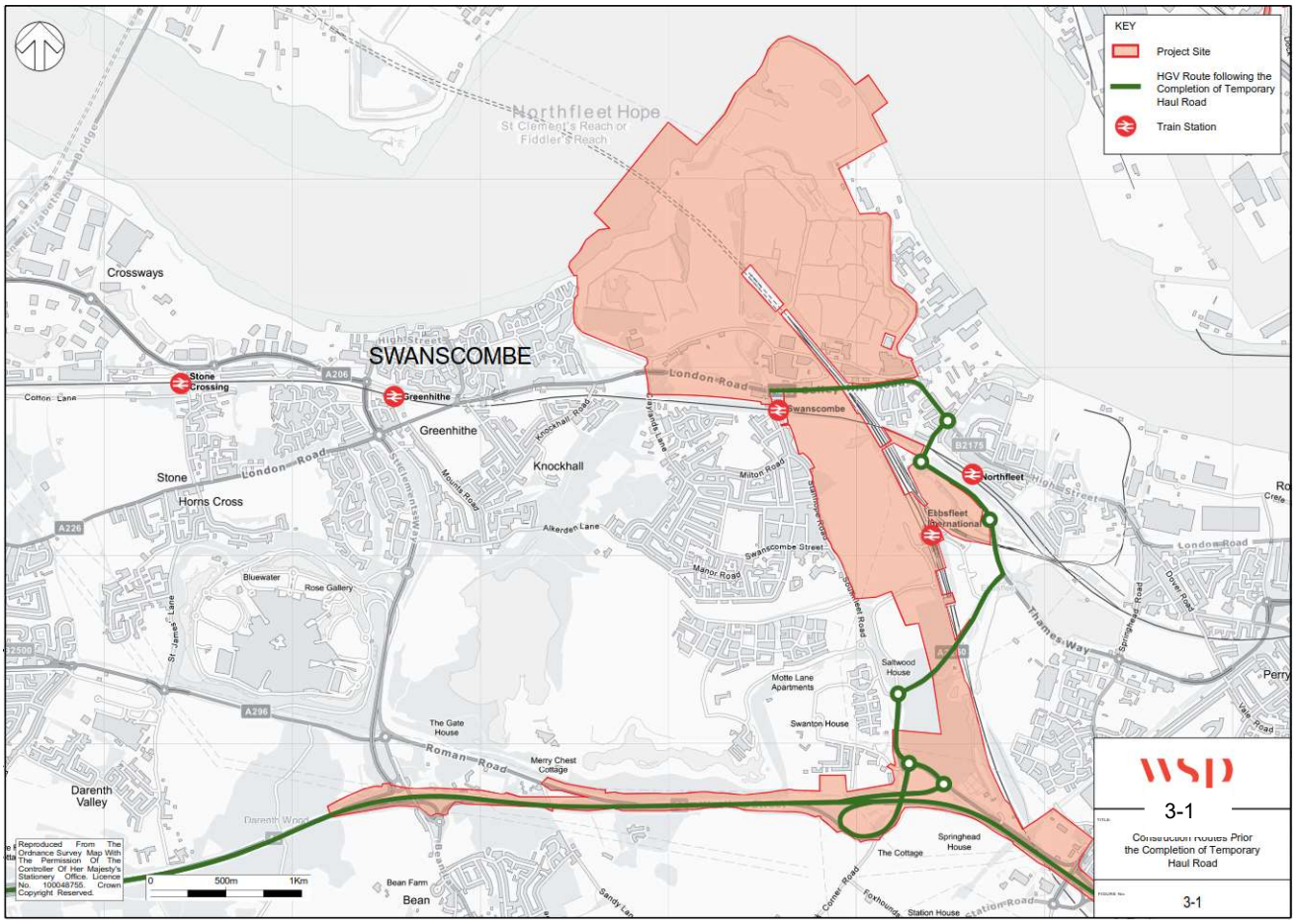
3.3.5. Construction Traffic will use the A2 Ebbsfleet International exit, A2260, A2260 Ebbsfleet Gateway, A226 Thames Way / A226, A226 Stonebridge Road, A226 Gallery Hill Road, A226 London Road and Manor Way.

3.3.6. There are no vehicular restrictions on the route outlined above. However, there are HGV restrictions on the B259 Southfleet Road with a 7.5 tonne vehicle limit in operation, this is due to the railway bridge at Swanscombe Station and through Swanscombe High Street.

3.3.7. This construction route is likely to be in place from the beginning of the construction process, although access along this route will be available for the full construction period. Figure 3-1 below, presents the proposed construction route prior to the completion of a temporary haul road, with access taken via London Road and Manor Way.

3.3.8. It is important to note, that the first 6 months of construction schedule on the peninsula will primarily see balancing of demolition and remediation works on site, and therefore will see lower numbers of workers or HGV movements than at peak times of the construction programme. An assessment has been undertaken of the existing uses on the site, which has shown that access to The Site via the A226 London Road is currently circa 367 movements per day (HGVs 09:00-17:00) through the existing industries on site. As set out in Section 3.5, the anticipated HGV movements associated with the first 6 months of construction of the Proposed Development are not forecast to exceed the level of potential traffic generation that could occur by way of the existing uses at The Site.

Figure 3-1 – Construction Route Prior to completion of temporary haul road



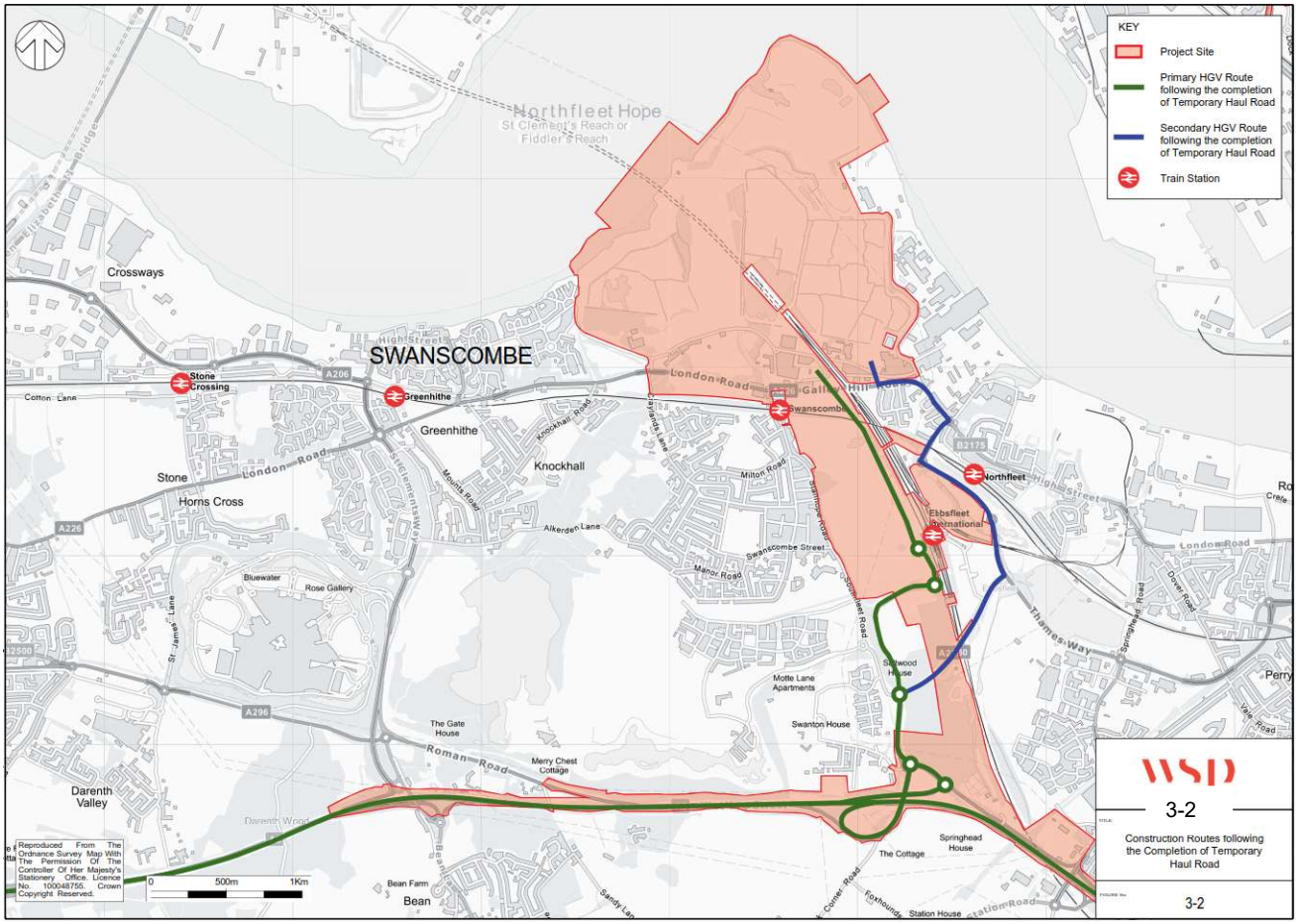
Kent Project Site - Following completion of a temporary haul road

3.3.9. It is anticipated that a temporary haul route could be in place during the early parts of the construction programme. At this time, construction traffic will continue to use the A2 Ebbsfleet International exit, A2260, International Way before transferring onto the temporary haul road on the alignment of the People Mover.

3.3.10. Figure 3-2 below presents the proposed construction route following the completion of the temporary haul road.

3.3.11. There may still be a required for some construction traffic to utilise the site access via London Road and Manor Way, following the completion of the temporary haul road. This is likely to be limited to HGVs only and would depend on which site compound is their necessary destination.

Figure 3-2 - Construction Route following completion of temporary haul road

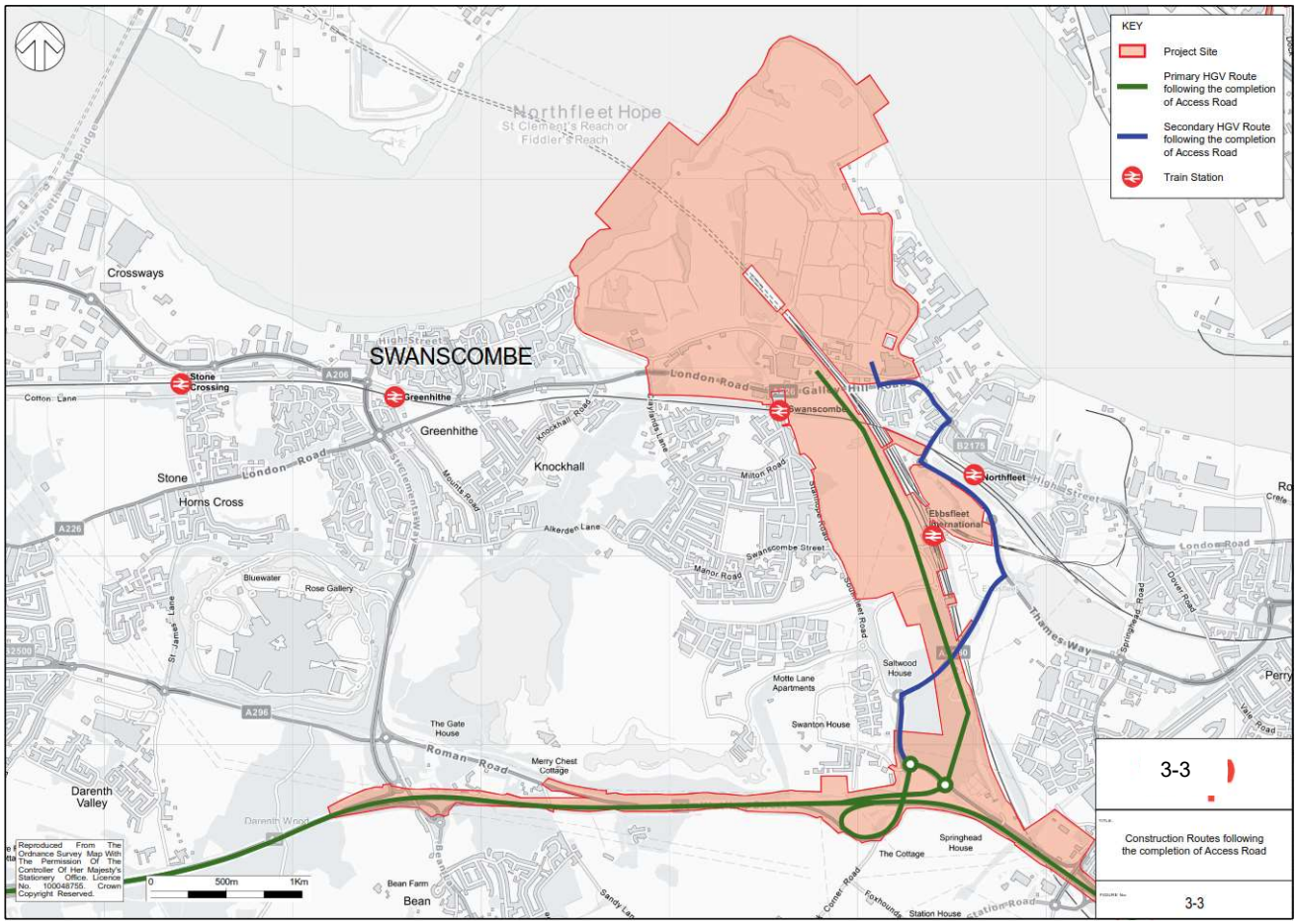


Kent Project Site - Following completion of the access road

3.3.12. It is anticipated that the construction of the access road will mirror the delivery of the London Resort. However, should the resort road complete before finalising the London Resort, Construction Traffic will use the A2 Ebbsfleet International exit to use the new access road on the northern arm of the eastbound on and off slip roundabout. Figure 3-3 below presents the proposed construction route following the completion of the access road. This construction route will remain in place following the opening of the resort in 2024 until the completion of Gate 2.

3.3.13. There may still be a requirement for some construction traffic to utilise the site access via London Road, following the completion of the access road. This is likely to be limited to HGVs only and would depend on which site compound is their necessary destination.

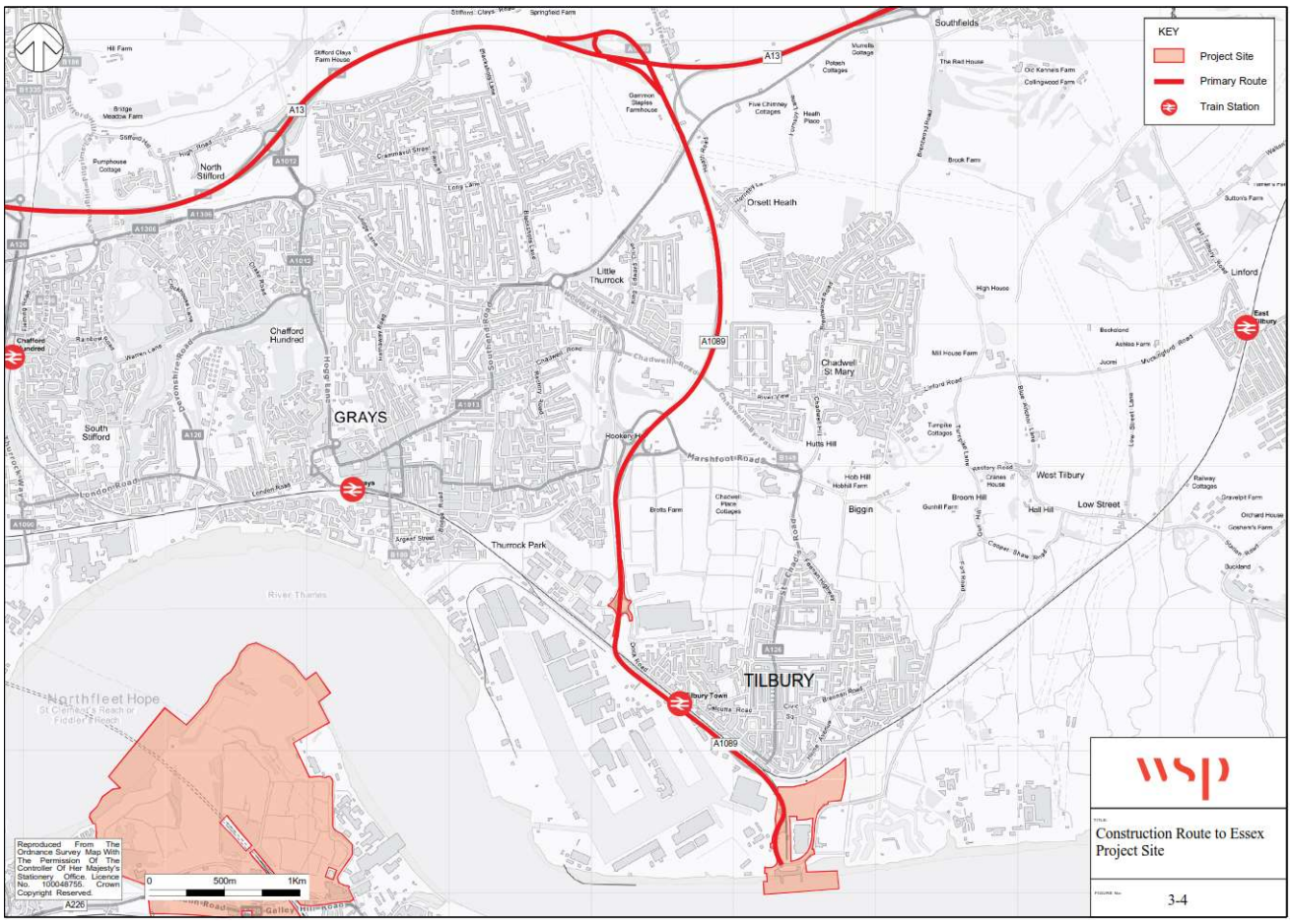
Figure 3-3 - Construction Route following completion of the access road



Essex Project Site

3.3.14. The Essex Project Site will be accessed via the Strategic Road Network via the A13 and A1089. Figure 3-4 presents the construction route to the Essex Project Site.

Figure 3-4 – Construction Route to the Essex Project Site



3.3.15. There are no HGV restrictions in the vicinity of this route if drivers follow the SRN route.

RIVER BARGE TRANSPORT

3.3.16. As outlined previously, it is forecast that up to 80% of the material arriving or departing the site will be via river barges or similar. The site is uniquely situated on the Swanscombe Peninsula, there is an existing landing known as Bell's Wharf, this will be utilised. Bell's Wharf will be the primary point for material delivery, receiving approximately 40 to 50% of all incoming components and materials. Bell's Wharf will be refurbished to enable its utilisation for the construction of Gate 1. Bell's Wharf has limited operating windows due to the tidal cycles of the River Thames., however it will provide a landing point both from and to the London Resort site.

3.3.17. Tower Wharf (Seacon) will also be used for the import of construction materials. Tower Wharf is equipped for cargo handling, storage and distribution. Seacon offers extensive storage facilities and the capacity to handle 33 metre long loads with cranage capacity of 40 tonnes, which will provide ease of early access to the Project Site.

3.4 WORKING HOURS

3.4.1. Prescribed hours of work will be agreed with relevant local authorities as appropriate as part of a Section 61 application(s). Section 61 of the Control of Pollution Act 1974 allows developers and their

contractors to apply to 'Prior Consent' for noise generating activities during construction phase of a development. This is a normal procedure for large construction projects.

3.4.2. The typical hours of work required by The London Resort which will be included in the Section 61 application(s) are provided in Table 3-1.

Table 3-1 – Typical Working Hours

Period	Start Time	Finish Time
Monday to Friday	08:00	18:00
Saturday	08:00	13:00
Sunday	**No Working** (unless agreed with Local authorities)	**No Working** (unless agreed with Local authorities)
Bank/ Public Holiday	**No Working** (unless agreed with Local authorities)	**No Working** (unless agreed with Local authorities)
Night-Time*	**No Working** (unless agreed with Local authorities)	**No Working** (unless agreed with Local authorities)

3.4.3. A period of up to one to two hours may be required before and after typical working hours to start up and close down activities. These activities would not include any works that are likely to involve significant noise levels or disturbance and examples of start-up / close down activities are as follows:

- Start-up activities
  - 06:00 to 07:45: Staff and labour access Site (offices and welfare areas);
  - 07:45 to 08:00: Operatives accessing work area; and
  - 07:45 to 08:00: Pre checks on plant equipment.
- Close down activities:
  - 18:00 to 18:30: Operatives leave work areas following the completion of main Site activities;
  - 18:30 to 19:00: Staff and workers leave Site (offices and welfare areas)

3.4.4. It is anticipated that some night-time (23:00-08:00), out-of-hours or weekend working maybe required for certain works (for example, highway works), especially where normal working hours will be difficult to manage or have other implications. Any such arrangements will require the hours of operation to be subject to prior agreement and reasonable notice with the Planning Decisions Team (PDT), except in emergency conditions.

3.5 EXISTING ON-SITE TRIP GENERATION

3.5.1. This section outlines the forecast trip generation from the existing 85,000sqm Industrial Estate that is located within the London Resort DCO Order Limits, which is currently accessed via Manor Way. This process will allow for some trip banking on the local highway network as the trips generated from the existing industrial use on site that will make way for the Proposed Development will be replaced by construction vehicles.

3.5.2. A TRICs assessment has been undertaken for the current industrial uses based on two different assessments with Scenario A and Scenario B. Scenario A treats each land use individually with a selection of Industrial Unit B1 (Class E), Industrial Unit B2, Commercial Warehouse B8 and Sui Generis. Scenario B forecasts the trip generation for an Industrial Estate treating the development as whole.

3.5.3. The TRICs traffic surveys were based on sites located anywhere in England, between Monday-Friday, located in a "Town Centre", "Edge of Town Centre", "Suburban Area", Edge of Town", "Neighbourhood Centre" and "Free Standing", the total floorspace is the maximum range and the traffic surveys were only included if they took place after 1st January 2006. The full TRICs outputs are included within Appendix A of this document.

3.5.4. Table 3-2 and Table 3-3 presents the forecast trip generation for Scenario A and Scenario B for Cars and OGVs respectively.

Table 3-2 - Scenario A and Scenario B Trip Generation for Cars

	Scenario A			Scenario B		
	Arrivals	Departures	Two-Way	Arrivals	Departures	Two-Way
06:00-07:00	190	66	256	191	71	262
07:00-08:00	327	89	416	219	64	284
08:00-09:00	429	159	588	350	118	468
17:00-18:00	94	397	491	104	276	380
18:00-19:00	51	144	195	57	171	228
06:00-19:00	2,951	2,864	5,815	2,517	2,457	4,975

3.5.5. Table 3-2 presents the forecast trip generation for the peak periods of construction worker activity travelling to and from The Site during the Peak Periods as well as between 06:00-19:00. Scenario A forecasts 1,000 extra two-way trips across the day compared to Scenario B, while in the AM and PM peak Scenario A forecasts an additional 100 two-way movements.

Table 3-3 - Scenario A and Scenario B Trip Generation for OGVs

	Scenario A			Scenario B		
	Arrivals	Departures	Two-Way	Arrivals	Departures	Two-Way
09:00-10:00	26	26	52	36	24	60
10:00-09:00	24	23	47	26	22	48
11:00-10:00	24	23	47	23	18	41
12:00-13:00	26	23	49	27	24	51
13:00-14:00	24	25	49	28	20	49
14:00-15:00	22	21	43	25	16	40

15:00-16:00	23	24	47	15	11	26
16:00-17:00	17	17	34	12	11	24
09:00-17:00	186	181	368	192	146	338

3.5.6. Table 3-3 presents the forecast OGV trip generation associated with the existing industrial activity, presented as an hourly profile between 09:00-17:00 together with the total movements between 09:00-17:00. This timescale has been considered as this is the HGV arrival and departure period for the construction phase. Similar to Table 3-2, the forecast trip generation across the eight-hour period is higher in Scenario A than in Scenario B.

3.5.7. In order to provide a robust assessment of the impact associated with the construction of the London Resort, the forecast trip generation of the potential traffic levels arising from the existing site usage from Scenario B will be utilised in Section 4-2, which provides an assessment of the net change in traffic levels during the construction phase.

3.6 CONSTRUCTION HGV MOVEMENTS

3.6.1. This section will outline the forecast number of HGVs that will be generated throughout the construction phase of the development.

CONSTRUCTION OF GATE 1

3.6.2. It is estimated that during construction of Gate 1 the Site will generate, an average of 80 HGV deliveries per day will be generated (therefore 80 arrivals and 80 departures per day giving a total of 160 HGV movements per day) throughout the construction period to the Kent Project Site. The maximum HGV flows will be 180 deliveries per day (therefore 180 arrivals and 180 departures per day giving a total of 360 HGV movements per day). This includes all associated construction activities, deliveries, highway access construction and the removal of material/ waste etc. When broken down across an eight-hour day (09:00-17:00) this equates to 22 – 23 HGVs arriving and 22 - 23 HGV's departing per hour. In terms of a two way flow per minute, this equates to one HGV approximately every 1 minute 20 seconds during this time.

3.6.3. The peak construction period will occur during 2023, at which point the construction route is anticipated to be via the haul road from Ebbsfleet International Station to the Site. As outlined earlier in this Chapter, the route will be from the A2 Ebbsfleet International exit, A2260, International Way before transferring onto the temporary haul road on the alignment of the People Mover.

3.6.4. On the strategic road network, the construction HGV movements have been assumed to be split 50:50 in either direction on the A2 eastbound and westbound. Heading west onto the M25 Junction 2 there is a further 50:50 split between construction HGVs heading north and south on the M25. While eastbound on the A2 it has been assumed a 50:50 split between construction HGVs heading east on the M2 or travelling south on the A229 towards the M20.

3.6.5. The maximum forecast HGVs generated at the Essex Project Site during the construction of Gate 1 is 150 HGVs per day (therefore 150 arrivals and 150 departures per day giving a total of 300 HGV movements per day) throughout the construction of Gate 1. When broken down across an eight-hour day (09:00-17:00) this equates to 18-19 HGVs arriving and 18-19 HGVs departing per hour. In terms of a two way flow per minute, this equates to one HGV approximately every minute and a half.

3.6.6. On the strategic road network, the construction HGV accessing the Essex Project Site movements have been assumed to be split 50:50 in either direction on the A13 eastbound and westbound. Heading west onto the M25 Junction 30 it has been assumed all HGVs will head north on the M25. While eastbound on the A13 it has been assumed a 50:50 split between construction HGVs heading east on the A13 to London Gateway and those travelling east on the A13 towards Chelmsford and Southend-on-Sea on the A229 towards the M20.

3.6.7. The first six months of the construction process will focus on the demolition and remediation works onsite, during this period there will be fewer than average HGV movements. This will likely continue until the completion of the temporary haul road from Ebbsfleet International to the resort to minimise the impact of construction vehicles on the highway network.

CONSTRUCTION OF GATE 2

3.6.8. It is estimated that during construction of Gate 2 the Proposed Development will generate a third of the movements for the Gate 1, an average of 27 HGV deliveries per day will be generated (therefore 27 arrivals and 27 departures per day giving a total of 54 HGV movements per day) throughout the construction period. When broken down across an eight-hour day (09:00-17:00) this equates to six or seven HGVs arriving and six or seven HGV's departing per hour. In terms of a two-way flow per minute, this equates to one HGV approximately every four minutes.

3.6.9. On the strategic road network, the construction HGV accessing the Kent Project Site movements have been assumed to be split 50:50 in either direction on the A2 eastbound and westbound. Heading west onto the M25 Junction 2 there is a further 50:50 split between construction HGVs heading north and south on the M25. While eastbound on the A2 it has been assumed a 50:50 split between construction HGVs heading east on the M2 or travelling south on the A229 towards the M20.

3.6.10. The forecast construction HGVs generated at the Essex Project Site during the construction of Gate 2 is 50 HGVs per day (therefore 50 arrivals and 50 departures per day giving a total of 100 HGV movements per day) throughout the construction period to the Essex Project Site. When broken down across an eight-hour day (09:00-17:00) this equates to six-seven HGVs arriving and six-seven HGVs departing per hour. In terms of a two way per minute, this equates to one HGV approximately every four minutes.

3.6.11. On the strategic road network, the construction HGV accessing the Essex Project Site movements have been assumed to be split 50:50 in either direction on the A13 eastbound and westbound. Heading west onto the M25 Junction 30 it has been assumed all HGVs will head north on the M25. While eastbound on the A13 it has been assumed a 50:50 split between construction HGVs heading east on the A13 to London Gateway and those travelling east on the A13 towards Chelmsford and Southend-on-Sea on the A229 towards the M20.

3.7 CONSTRUCTION WORKERS

CONSTRUCTION OF GATE 1

3.7.1. This section will focus on the 4,500 Daily Commuter construction workers arriving and departing at the London Resort each day for duration of the peak construction period. Volterra have produced a Construction Worker Distribution Note which forecasts the trip distribution of the Daily Commuter construction staff employed at the London Resort which is contained within Appendix B. The analysis is based on journey to work data provided at Census Middle Supper Output Area (MSOA)

from the 2011 Census and, commuting information by distance band specific to the construction industry[1].

3.7.2. As discussed previously, the On-site Accommodation construction workers will operate on a different working schedule to those Daily Commuter construction workers traveling to and from site each day.

3.7.3. The Volterra report splits mode share for the commute to the London Resort by either a private car or a public transport, the results of which are as presented in Table 3-4. As there are currently no routes that directly access the London Resort from north of the River Thames, it is proposed to provide a ferry from Tilbury to take staff from the northern side of the river directly to the Site. This will mean off-site construction workers travelling from north of the river will be able to travel to Tilbury instead of travelling on the M25 utilising the Dartford crossing which would significantly increase their journey time. The likely split of trips between those construction workers arriving at Tilbury and Swanscombe is presented in Table 3-5, noting that the final proportions will be dependant upon the appointed contractor. Table 3-6 presents the parking provision to be provided to accommodate the peak construction work force.

Table 3-4 – Daily Commuter Construction Worker mode share

	Low	Peak
Staff	1,650	4,500
Travel by Car	1,300 (87%)	3,568 (79%)
Travel by Public Transport	350 (13%)	932 (21%)

Table 3-5 – Construction Worker Mode Share and split by destination

	Tilbury	Swanscombe
Car	10%	69%
Public Transport	5%	16%
Total	15%	85%

Table 3-6 - Construction Worker Car Park Capacity

	Car Park Capacity	Construction Workers*
Kent Project Site	815	2,445

[1] ONS, 2020. CT1109 COVID-19_2011 Census [available at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/adhocs/11742ct1109covid192011census]

Essex Project Site (Daily Commuter Construction Workers)	200**	600

*Assumed an Occupancy of 3 per vehicle

**Total Car park capacity is 350 – 150 spaces set aside for resident workers

3.7.4. The car park capacity has been calculated based on the number of construction workers travelling to the car parks north or south of the River Thames based on the distribution provided by Volterra. This demand is adjusted for an occupancy of three people per vehicle. The demand for the southern car park has reduced to account for the Daily Commuter Construction Workers who have a home origin of Dartford or Gravesham, this is outlined in further detail in paragraph 3.7.9.

3.7.5. In order to minimise the impact on the highway network the Daily Commuter construction workers arrival pattern will be split evenly over a two-hour arrival period before construction can begin on-site. Incentives will be provided to staff to arrive earlier with the provision of a canteen to provide breakfast and other welfare facilities.

3.7.6. Forecasting that both car parks, north and south of the river will operate at full capacity during the peak construction period. The Kent Project Site car park for Daily Commuter construction workers can accommodate circa 815 vehicles; split over the two-hour arrival period this is around 407 vehicles per hour. This will equate to generating approximately six / seven trips per minute on the highway network between 06:00-08:00.

3.7.7. As outlined previously in this document the car park at the Essex Project Site will provide space for 350 vehicles of which 200 will be associated with Daily Commuter construction workers. Split evenly, the forecast trips will generate a 100 vehicles per hour which equates to generating one or two vehicles per minute on the highway network. The actual demand forecast from the Volterra Technical Note with an occupancy of three people per vehicle, forecasts a likely demand of approximately 150 vehicles requiring parking at Tilbury. For a robust assessment in the Land Transport chapter in the Environmental Statement, the Transport Assessment and this assessment it has been assumed 100 vehicles per hour to test the car park operating at peak capacity.

3.7.8. Departing the site, as outlined in Section 3.4 the construction workers will leave the resort after 18:30 within a half an hour period. It has been assumed that all Daily Commuter construction workers will be off-site by 19:00.

3.7.9. The Volterra Construction Worker Distribution Note forecasts that 9% and 11% of the Daily Commuter construction workers will travel from Dartford and Gravesham respectively. In order to reduce the size of the on-site car park and the impact on the local highway network, all construction workers from those two Local Authorities will be required to travel to site via Public Transport and no parking provision will be provided for them on-site. The construction workers will receive financial support to encourage usage of these services. This will be outlined in further detail in the Construction Worker Travel Demand Management, outlined in Chapter 5.

3.7.10. Table 3-7 and Table 3-8 outline the Daily Commuter construction worker driving routes to the Kent Project Site and the Essex Project Site. These routes are based on information outlined in the Volterra Construction Worker Distribution Note which forecasts the origin of the Daily Commuter construction workers. The tables first outline the number of construction workers followed by the number of vehicles; this is based on an occupancy of three workers per vehicle. Table 3-8 scales up

the number of vehicles travelling to Tilbury from 151 vehicles forecast in the Volterra Technical Note to 200 vehicles based on the maximum capacity of the car park.

Table 3-7 - Construction Worker Distribution at the Kent Project Site

	Construction Workers	Construction Workers Parking On-Site (Vehicles)
A282/ A2 Eastbound	906	302
M25 (ACW) / A2 Eastbound	1,249	416
A296 Eastbound	0	0
A2 Westbound	288	96
Total	2,443	814

Table 3-8 - Construction Vehicle Distribution at Essex Project Site

	Construction Workers	Construction Workers Parking On-Site (Vehicles)	Construction Workers Parking On-Site (Vehicles)*
A1013 SB/ A1089	308	103	136
A13 WB/ A1089	107	36	47
A13 EB/ A1089	40	13	17
Total	454	151	200

*Scaled up to 200 vehicles parking at Tilbury Car Park

3.7.11. Table 3-7 and Table 3-8 presents the forecast number of construction workers travelling to the London Resort each day via a particular route. As shown in Table 3-7 it is forecast an additional 718 vehicles will be travelling eastbound on the A2, with nearly 100 travelling west on the A2. The Daily Commuter construction workers travelling to the Tilbury Car Park will travel along three different routes via the A1013 SB, A13 WB and A13 east bound at which point they will join the A1089 to access the Car Park at Tilbury Port.

3.7.12. The Volterra report forecasts 484 Daily Commuter construction workers travelling to the Kent Project Site via Public Transport, this is in addition to those travelling from Dartford and Gravesham. As it has been assumed that all the Daily Commuter construction workers from Gravesham and Dartford will travel on local bus or rail services they will not require further transport to arrive on-site. The Daily Commuter construction workers traveling from further afield are likely to travel to the public transport hubs at Gravesend and Ebbsfleet International. A coach service will be provided to collect these construction workers, it is yet to be confirmed on the routing of the coach services but conservatively seven coaches per hour will operate between 06:00-08:00, with fourteen coaches being required between 18:00-19:00. As a coach has a potential occupancy of 50 workers per unit, the provision of seven per hour for the arrival period and fourteen for the departure period is deemed

appropriate to accommodate the demand. The coach services from the local transport hubs will be continually monitored to check the demand can be managed and if additional services are required these can be implemented by LRCH.

3.7.13. The distribution forecasts approximately 225 Daily Commuter construction workers will arrive to Tilbury by Public Transport. A coach service will be operated between Tilbury Town railway station and the ferry terminal to provide a shuttle service. These services are likely to operate three times an hour between 06:00-08:00 and five times for departure between 18:00-19:00.

3.7.14. Table 3-9 and Table 3-10 outline a typical peak weekday vehicular arrival and departure profile at the Resort and at Tilbury respectively. For the assessment it has been assumed that the coach arrivals will be split evenly between 06:00-0700 and 07:00-08:00 and depart between 18:00-19:00.

Table 3-9 – Typical peak period Weekday Vehicular Arrival and Departures profile on the Kent Project Site

	0600-0700	0700-0800	0800-0900	0900-1000	1000-1100	1100-1200	1200-1300	1300-1400	1400-1500	1500-1600	1600-1700	1700-1800	1800-1900
Arr	414	414	0	23	22	23	22	23	22	23	22	0	0
Dep	0	0	0	22	23	22	23	22	23	22	23	0	828
Total	414	414	0	45	45	45	45	45	45	45	45	0	828

Table 3-10 – Typical peak period Weekday Vehicular Arrival and Departures profile at Essex Project Site

	0600-0700	0700-0800	0800-0900	0900-1000	1000-1100	1100-1200	1200-1300	1300-1400	1400-1500	1500-1600	1600-1700	1700-1800	1800-1900
Arr	103	103	0	19	19	18	19	19	19	18	19	0	0
Dep	0	0	0	18	19	19	19	18	19	19	19	0	206
Total	103	103	0	37	38	37	38	37	38	37	38	0	206

3.7.15. The arrival and departure profiles presented in Table 3-9 and Table 3-10 forecast no trips within the traditional AM peak 08:00-09:00 and PM peak 17:00-18:00. The Highway Assessment during the construction of Gate 1 includes the forecast traffic arrivals and departures expected to arrive between 07:00-08:00 and depart between 18:00-19:00 these flows have been assessed within the traditional network AM and PM peak hours in order to provide a robust assessment. This assessment will be undertaken in Chapter 11 of the Transport Assessment with a summary provided in this document within Chapter 4.

CONSTRUCTION OF GATE 2

3.7.16. This section will focus on the Construction of Gate 2 peak construction period when 2,250 Daily Commuter construction workers will arrive and depart the London Resort each day. During construction of Gate 2 of the construction period the amount of construction staff living on site will drop to approximately 750 construction workers, these will be housed on a vessel docked at the Port

of Tilbury. As outlined previously they will continue to operate a different working schedule, leaving The London Resort on Friday no later than 15:00 and arriving back on-site Sunday evening.

3.7.17. The type of commute has been split simply by either a private vehicle or a public transport journey, as presented in Table 3-11 for low and peak off-site staff. This is based on the information provided by Volterra Construction Worker Distribution Note.

Table 3-11 – Daily Commuter Construction Worker mode share for the construction of Gate 2

	Low	Peak
Staff	825	2,250
Travel by Car	650	1,784
Travel by Public Transport	175	466

3.7.18. The Daily Commuter construction workers will continue to arrive over a two-hour period before construction can begin on-site, this follows the same approach in the construction of Gate1. Similarly, to the construction of Gate 1 all the Daily Commuter construction workers with a home origin of Dartford or Gravesham will travel to the site via public transport, as no parking provision will be provided.

3.7.19. Table 3-12 and Table 3-13 outline the Daily Commuter construction worker driving routes to the Kent Project Site and the Essex Project Site. These routes are based on information outlined in the Volterra Construction Worker Distribution Note which forecast the origin of the Daily Commuter construction workers. The tables first outline the number of construction workers followed by the number of vehicles; this is based on an occupancy of three workers per vehicle.

Table 3-12 - Construction Worker Distribution at the Kent Project Site

	Construction Workers	Construction Workers Parking On-Site (Vehicles)
A282/ A2 Eastbound	453	151
M25 (ACW) / A2 Eastbound	625	208
A296 Eastbound	0	0
A2 Westbound	144	48
Total	1,222	407

Table 3-13 - Construction Vehicle Distribution at the Essex Project Site

	Construction Workers	Construction Workers Parking On-Site (Vehicles)
A1013 SB/ A1089	154	52

A13 WB/ A1089	54	18
A13 EB/ A1089	20	7
Total	227	77

3.7.20. Table 3-12 and Table 3-13 presents the forecast number of construction workers travelling to the London Resort each day via a particular route. As shown in Table 3-12 it is forecast an additional 359 vehicles will be travelling eastbound on the A2, with nearly 50 travelling west on the A2. The Daily Commuter construction workers travelling to the Essex Project Site will travel along three different routes via the A1013 SB, A13 WB and A13 EB at which point they will join the A1089 to access the Car Park.

3.7.21. The Volterra report forecasts 242 Daily Commuter construction workers travelling to the Kent Project Site via Public Transport, this is in addition to those travelling from Dartford and Gravesham. As it has been assumed that all the Daily Commuter construction workers from Gravesham and Dartford will travel on local bus or rail services, they will not require further transport to arrive on-site. The Daily Commuter construction workers traveling from further afield are likely to travel to the public transport hubs at Gravesend and Ebbsfleet International. A coach service will be provided to collect these construction workers, it is yet to be confirmed on the routing of the coach services but conservatively four coaches per hour will operate between 06:00-08:00, with seven coaches been required between 18:00-19:00. As a coach has a potential occupancy of 50 workers per unit, the provision of seven per hour for the arrival period and fourteen for the departure period is deemed appropriate to accommodate the demand. The coach services from the local transport hubs will be continually monitored to check the demand can be managed and if additional services are required these can be implemented by LRCH.

3.7.22. The distribution forecasts approximately 113 Daily Commuter construction workers will arrive to Tilbury by Public Transport during the construction of Gate 2. A coach service will be operated between Tilbury Town railway station and the ferry terminal to provide a shuttle service. These services are likely to operate two times an hour between 06:00-08:00 and three times for departure between 18:00-19:00.

3.7.23. Table 3-14 and 3-15 outlines a typical peak weekday vehicular arrival and departure profile at the Resort and at Tilbury respectively. For the assessment it has been assumed that the coach arrivals will be split evenly between 06:00-0700 and 07:00-08:00 and depart between 18:00-19:00.

Table 3-14 – Typical peak period Weekday Vehicular Arrival and Departures profile on the Kent Project Site during Construction of Gate 2

	0600-0700	0700-0800	0800-0900	0900-1000	1000-1100	1100-1200	1200-1300	1300-1400	1400-1500	1500-1600	1600-1700	1700-1800	1800-1900
Arr	206	206	0	4	3	3	4	3	4	3	3	0	0
Dep	0	0	0	3	4	3	3	4	3	3	4	0	411
Total	206	206	0	7	7	6	7	7	7	6	7	0	411

Table 3-15 – Typical peak period Weekday Vehicular Arrival and Departures profile at Tilbury Docks during Construction of Gate 2

	0600-0700	0700-0800	0800-0900	0900-1000	1000-1100	1100-1200	1200-1300	1300-1400	1400-1500	1500-1600	1600-1700	1700-1800	1800-1900
Arr	40	41	0	7	6	6	6	7	6	6	6	0	0
Dep	0	0	0	6	6	6	7	6	6	6	7	0	80
Total	40	41	0	13	12	12	13	13	12	12	13	0	80

3.7.24. The arrival and departure profiles presented in Table 3-14 and Table 3-15 forecast no trips within the traditional AM peak 08:00-09:00 and PM peak 17:00-18:00 during Construction of Gate 2 of the Construction period. A highway link flow assessment will be undertaken for the peak arrivals and departures between 07:00-08:00 and 18:00-19:00 during the Construction of Gate 2. The assessment will be undertaken in Chapter 4 and will include the forecast vehicle flows from the 85th Percentile Day in 2025 with the construction vehicle movements included.

3.8 NET CHANGE EXISTING INDUSTRIES VS FORECAST CONSTRUCTION TRAFFIC

3.8.1. This section presents the forecast net change in traffic flows on the roads in close proximity to the London Resort. As outlined previously in Section 3.5 there is industrial floor area amounting to approximately 85,000sqm currently located within the redline boundary of the London Resort. These industrial uses will make way in order to accommodate the Proposed Development and as such the traffic associated will also be removed from the immediate highway network, resulting in a net change in traffic rather than a gross increase. Table 3-16 and Table 3-17 presents the net change between the cars and HGVs associated with the existing industries and the forecast peak construction traffic.

Table 3-16 – Difference Trip Generation for Construction Traffic and Existing Industries Traffic for Cars

	Construction Traffic			Existing Industries Traffic			Net Change		
	Arr	Dep	Two-Way	Arr	Dep	Two-Way	Arr	Dep	Two-Way
06:00-07:00	414	0	414	190	66	256	-224	66	-158
07:00-08:00	414	0	414	327	89	416	-87	89	2
08:00-09:00	0	0	0	429	159	588	429	159	588
17:00-18:00	0	0	0	94	397	491	94	397	491
18:00-19:00	0	828	828	51	144	195	51	-684	-633
06:00-19:00	828	828	1,656	2,951	2,864	5,815	2,123	2,036	4,159

Table 3-17 – Difference Trip Generation for Construction Traffic and Existing Industries Traffic for OGVs vehicles

	Construction Traffic			Existing Industries Traffic			Net Change		
	Arr	Dep	Two-Way	Arr	Dep	Two-Way	Arr	Dep	Two-Way
09:00-10:00	23	22	45	26	26	52	-3	-4	-7
10:00-09:00	22	23	45	24	23	47	-2	0	-2
11:00-10:00	23	22	45	24	23	47	-1	-1	-2
12:00-13:00	22	23	45	26	23	49	-4	0	-4
13:00-14:00	23	22	45	24	25	49	-1	-3	-4
14:00-15:00	22	23	45	22	21	43	0	2	2
15:00-16:00	23	22	45	23	24	47	0	-2	-2
16:00-17:00	22	23	45	17	17	34	5	6	11
09:00-17:00	180	180	360	186	181	367	-6	-1	-7

3.8.2. Table 3-16 and Table 3-17 presents the net change for vehicles and HGVs as a consequence of the removal of the existing industrial floor space which currently occupies the Site. Focusing on Table 3-17, it is forecast that only three-hour periods will see an increase in vehicle movements on the local highway network through the removal of the existing site uses and with construction activity taking place. The highest two-way increase is forecast in the 18:00-19:00 when an additional 633 vehicles are forecast on the highway network. The HGVs generated by the construction of the London Resort are forecast to be less than the current movements generated by the existing industrial land use. As presented above, the existing vehicular movements related to the existing site use is approximately 950 arriving in the AM peak period 06:00-09:00 with between 500-550 departing between 17:00-19:00.

3.8.3. During Construction of Gate 1 before the completion of the temporary haul road, construction HGVs will be required to utilise the local highway network. As presented in Table 4-2, the forecast peak HGVs associated with the construction are similar to those that could occur with the existing Industrial land use. As the HGV movements are forecast to be lower in the first six months than during the peak construction period as it will focus primarily on demolition and remediation works, the highway network will benefit from a reduction in HGV movements. The amount of construction workers being required on-site during the six-month period is forecast to be lower than during the peak period of the programme. As such the forecast trip generation will be similar to that which could occur with the existing industrial land use, so a highway assessment will not be required for the movements generated in the first six months of assessment.

3.9 LOGISTICAL ISSUES

3.9.1. During the construction process if for any reason, fog or other weather events transpire that no ferry crossings can be undertaken on a particular day. The London resort would provide buses or

coaches to transport construction workers from the port of Tilbury to the Resort site. It is likely that these events would happen rarely but prior knowledge due to advanced weather forecasting would allow for the resort to plan for such occurrences. As the arrival and departures for resort fall outside of the peak periods no assessment of this scenario has been undertaken.

3.9.2. As the delivery of material to The London Resort is unlikely to be just in time deliveries, as such the appointed principle contactor will be required to plan around these logistical events.

4 CONSTRUCTION IMPACT ASSESSMENT

4.1 INTRODUCTION

4.1.1. This chapter provides a summary of the impact of construction traffic on the wider highway network, this is taken from Chapter 13 of the Transport Assessment for Construction of Gate 1 and Construction of Gate 2. Furthermore, the chapter presents a range of the management measures that will be implemented to reduce the impact on the local and strategic highway network from construction HGVs.

4.2 SUMMARY OF THE HIGHWAY ASSESSMENT DURING CONSTRUCTION OF GATE 1

4.2.1. The Highway Assessment during the construction of Gate 1 includes the forecast traffic arrivals and departures expected to arrive between 07:00-08:00 and depart between 18:00-19:00 these flows have been assessed within the traditional network AM and PM peak hours in order to provide a robust assessment.

Microsimulation impact assessment

4.2.2. The microsimulation model of the 2023 construction scenario for the Do Minimum and Do Something forecasts a slight increase in journey times in AM and PM peak across the four assessed routes. While in the AM and PM peaks the forecast queue in the Do Something scenario there are some queues increasing and queues decreasing this is due to the optimisation of the traffic signals to balance out the green time.

Individual Junction Assessments

4.2.3. At the Asda Roundabout, in the AM peak the junction operates close or approaching capacity in the Do Minimum scenario, noticeable in the AM Peak. While in the PM peak, there is an increase in RFC and queues on the approach from the A1089 St Andrews Road between the Do Minimum and Do Something scenarios. It is not considered a serve impact due to the temporary nature of construction activity.

4.2.4. The impact of the construction vehicles at the M25 Junction 30 in the AM peak is forecast to be approximately 150 vehicles and nine HGVs. While in the PM peak the increase is forecast to be 300 vehicles and nine HGVs. This impact is forecast to be smaller than our operational impact at the Junction and as such not considered a material impact.

4.2.5. The M25 Junction 2 is forecast to operate within capacity in both the AM and PM peaks in the Do Minimum and Do Something scenarios. The signalised junction is forecast to operate very similar between the Do Minimum and Do Something scenarios, as such the addition of construction traffic has no material impact on the junction.

Merge Diverge Assessments

4.2.6. The merge diverge assessments are based on the Design Manual for Road and Bridges CD 122 ‘Geometric design of Grade Separated Junctions’. In 2023 the construction traffic associated with Gate 1 is not considered to have a material impact on the sufficient layout to require significant infrastructure to improve.

4.3 HIGHWAY ASSESSMENT CONSTRUCTION OF GATE 2

4.3.1. In order to conduct a highway assessment for peak construction period for Phase 2 of the London Resort, which will take whilst the Resort has opened to the Public, the 85th Percentile Day 2025 arrival and departure has been used as background traffic flows with the construction traffic added on top. Table 4-1 and Table 4-2 presents the typical vehicular arrival and departure profiles for the Kent Project Site and Essex Project Site in 2025 with the peak Phase 2 construction movements in addition.

Table 4-1 - Typical peak period Weekday Vehicular Arrival and Departures profile on the Kent Project Site Phase 2 Plus 2025 Visitor Profile 85th Percentile Day

	0600-0700	0700-0800	0800-0900	0900-1000	1000-1100	1100-1200	1200-1300	1300-1400	1400-1500	1500-1600	1600-1700	1700-1800	1800-1900
Arr	203	284	107	391	698	678	690	714	603	559	479	191	272
Dep	0	34	19	57	76	110	122	174	233	294	584	517	971
Total	204	318	126	448	774	788	812	888	836	853	1,063	708	1,243

Table 4-2 - Typical peak period Weekday Vehicular Arrival and Departures profile at the Essex Project Site Phase 2 Plus 2025 Visitor Profile 85th Percentile Day

	0600-0700	0700-0800	0800-0900	0900-1000	1000-1100	1100-1200	1200-1300	1300-1400	1400-1500	1500-1600	1600-1700	1700-1800	1800-1900
Arr	40	41	0	92	204	193	178	192	145	124	109	31	54
Dep	0	0	0	11	17	17	17	21	28	30	133	144	156
Total	40	41	0	103	221	210	195	213	173	154	242	175	210

4.3.2. The addition of construction traffic on top of the 85th Percentile Day profile 2025 forecasts an increase in traffic flows between 06:00-08:00, 09:00-17:00 and 18:00-19:00. The construction traffic will not have an impact on traffic flows in the AM and PM peaks. Unlike the highway assessment for the Construction of Gate 1, no shift in arrivals and departures has been undertaken as the construction traffic associated with Gate 2 is significantly reduced compared to Gate 1. As such, a detailed highway assessment is not required as the impact from construction traffic is not considered to have a material impact.

4.4 MANAGEMENT MEASURES

4.4.1. This section outlines the management measures that will be implemented to reduce the impact on the local and strategic highway network.

TRANSPORT CO-ORDINATION

4.4.2. The London Resort will appoint a Construction Site Manager for the scheme, the Construction Site Manager will take on the role of co-ordinating transport of materials, plant and staff during the construction period. Their main responsibilities will include:

- Managing the implementation of the CTMP
- HGV schedule;
- Checking for scheduled road works;
- Dealing with complaints; and
- Acting as a point of contact for employees, contractors and the general public.

4.4.3. The Construction Site Manager would liaise with the following key stakeholders throughout the construction period:

- Contractors;
- The Developer;
- Nearby residents;
- Other local stakeholders such as emergency services or local transport providers; and
- Local councils and highway authorities and Highways England.

4.4.4. The Construction Site Manager will also hold meetings with the local highway authorities and relevant stakeholders and will have the ability to implement additional mitigation measures if they are deemed necessary. The Construction Site Manager will provide any monitoring data, delivery schedules, complaints or breaches of agreement to Kent County Council, if requested.

5 CONSTRUCTION WORKER TRAVEL DEMAND MANAGEMENT

5.1 INTRODUCTION

5.1.1. This chapter outlines how a Construction Worker Travel Demand Management Plan (CWTDM) will be implemented at London Resort throughout the construction phase of development. This is to ensure the highways and transport network impacts of construction worker trips are minimised, whilst also presenting a range of sustainable mobility options for construction workers to support accessibility and modal choice.

5.1.2. It will be for the appointed principal contractor to provide a final Construction Worker Travel Demand Management Plan, however this section provides details of the framework of measures that can be applied.

5.1.3. Having an overarching aim is useful to determine what needs to be achieved in practice and what will be desirable from a sustainable mobility perspective. Therefore, the overarching aim for construction worker TDM plan is:

London Resort will be a sustainable, low carbon development, supporting construction worker journeys by a variety of travel modes. This will be achieved through investment in infrastructure, targeted information and promotion, and facilitating access to ridesharing, public transport and shared mobility services.

5.2 TRAVEL DEMAND MANAGEMENT OBJECTIVES

5.2.1. To achieve this aim, investment in relevant measures will be guided by specific objectives set out below:

1. Support sustainable and shared mobility and minimise the number of single-occupancy car driver trips made by construction workers;
2. Promote low carbon, active travel options amongst construction workers;
3. Encourage the use of local public transport services and support ease of modal interchange;
4. Manage construction worker parking demands within London Resort; and
5. Enhance the quality and availability of travel information and advice for construction workers.

5.2.2. Achieving these objectives will help deliver sustainable construction worker travel patterns at London Resort and will directly contribute towards embedding principles of sustainability from the earliest stages of development.

5.3 TRAVEL DEMAND MANAGEMENT MEASURES

5.3.1. A variety of TDM plan measures will be introduced during the construction phases of London Resort. These measures have been drawn together based on reviewing construction worker travel demands, as outlined in earlier chapters, and examining current and emerging best practice in the industry to facilitate sustainable commuting patterns.

5.3.1. Measures cover a broad spectrum and are grouped under the following themes:

- Enhanced access to public and shared mobility;
- Travel information and targeted communications;
- Managing car-based mobility; and
- Corporate travel and working policy.

5.3.2. Table 5-1 provides a summary of the measures that will support the objectives for construction worker TDM plan. This include a written description of the measure, an indication of which the TDM plan objective it will support, and a summary rationale for why the measure will be introduced.

Table 5-1 - Construction Worker TDM plan

Theme 1: Enhanced Access to Public and Share Mobility

Measure	Rationale	TDM Plan Objective
1. Shuttle Coach Services Dedicated shuttle coach services provided for construction workers	This CTMP estimates that up to 28% of construction workers (1,280 people) could access the site, primarily from Gravesham, Dartford and Thurrock. Furthermore, the majority of Daily Commuter Construction Workers will originate in local authorities that can access Ebbsfleet International station within 60 minutes by rail. Shuttle coach services will therefore be provided for construction workers that connect with London Resort to and from these wider public transport connections. These services and the resulting dedicated capacity will directly support the affordability, attractiveness and viability of construction workers using public transport options to access London Resort.	1,3

2. Employee Travel Credit Construction workers provided with some free travel credit for public transport and wider mobility services (inc. ride hailing, car clubs and other shared mobility services)	An opportunity exists to provide a direct financial incentive for construction workers to commute using public transport services from the outset through the introduction of travel credit. This could be linked to the Mobility Portal (see Measure 5) whereby a smartphone device is registered and provides both a booking system and free or discounted travel for a defined period as an introductory offer.	1,2,3
3. Integrated Smart Ticketing A digital-based, integrated smart ticketing option – available as a single mobility service on demand.	Construction workers accessing the site by public transport will benefit from a digital-based and integrated smart ticketing system. This will support ease of access and frictionless inter-modal connectivity between e.g. ferry, bus, rail and micro-mobility services for travelling to and from site, which will enhance the overall attractiveness and viability of these options.	1,2,3
4. Shared micro-mobility services Shared micro-mobility hire schemes providing access on demand to e.g. e-bike, e-scooter and Segway hire for connecting with bus and rail services.	Opportunities will exist for construction workers to access micro-mobility services that connect London Resort with key transport interchanges. For example, e-bike docking stations included within the Resort to support a point-to-point shared mobility option for construction workers arriving and departing the site from Ebbsfleet International and Gravesend Station	1,2,3

Theme 2: Travel Information and Targeted Communications

Measure	Rationale	TDM Plan Objective
5. Mobility Portal A single source of multi-modal travel information and advice for construction workers, tailored specifically to London Resort. This could be both web-based and a smartphone application that	Construction workers will inevitably require access to travel information on-demand and be alerted to issues of network disruption. A Mobility Portal will be created for London Resort as a single and trusted source of information, or to access bookings and fares information for different mobility services. Users could pre-register their travel requirements and receive SMS push notifications as	1,2,3,4,5

construction workers can access on-demand.	travel alerts or for travel offers being promoted at the resort. Information on carbon emissions for commuting and business trips by mode can be shown to support employee awareness towards net zero carbon objectives.	
6. Mobility service arrival and departure information Real-time information on bus and rail arrivals, departures and available capacity. Option to display within construction zones or incorporate a live feed within the mobility portal and smartphone application.	Information to support users experience of these services by allowing construction workers to be better informed about a certain service and whether enough capacity is available where desired, or any service disruption. This is anticipated to be introduced alongside the shuttle coach services (Measure 1) to support the overall quality of the services.	1,3,5
7. Personalised Travel Plans Personalised commuting plans prepared for all construction workers prior to commencing work at London Resort.	Plans that provide individually tailored information and door-to-door journey planning advice. These will provide individual construction workers with information on realistic options and present a comparative analysis with travelling to the resort by private car. There is an opportunity to integrate the free travel credit with plans to promote and incentivise the use of specific modes.	1,2,3,4,5

Theme 3: Managing Car-based Mobility

Measure	Rationale	TDM Plan Objective
8. Parking Management Plan A parking management plan prepared and implemented to manage parking at London Resort. Options may include introducing charging, permit-based systems, designating parking based on certain criteria (such as	The on-site car parking during the construction of Gate 1 for Daily Commuter construction workers will be split across sites north and south of the River Thames. At the Kent Project Site there will be circa 815 temporary car parking spaces available located on the Peninsular. At Essex Project Site there will be a 350-space car park provided of 200 spaces will be for Daily Commuter Construction Workers.	1,4

ridesharing only) or a combination. Cycle parking demand can also be reviewed with additional parking provided over time as required.	The availability of workplace parking at London Resort will be a key determinant of the number of private vehicle-based commutes amongst constriction workers. A parking enforcement system provides the opportunity to regulate and manage the supply and demand for parking, based on multi occupancy journeys. Monitoring data can be used to examining parking accumulation, occupancy and duration of stay over time and be used to form policy and parking management approaches that will help optimise the supply of parking for construction workers.	
9. Ridesharing Platform A dedicated platform to facilitate ridesharing arrangements between construction workers in real-time, on-demand, accessible through a smartphone application.	Promoting and actively facilitating ridesharing between construction workers can support higher vehicle occupancy and reduce the overall number of private vehicle trips. Systems can be introduced and promoted across the cohort of construction workers to create a critical mass of potential matches for shared rides. Systems can be refined to highlight financial savings or provide rewards linked to carbon emissions saved in response to achieving net zero carbon objectives. An opportunity exists to integrate this technology within the parking management system, such as automatically enforcing carpooling arrangements with an SMS system linked to barrier-controlled entry.	1,4

Theme 4: Corporate Travel and Woking Policy

Measure	Rationale	TDM Plan Objective
10. Construction Worker Accommodation and Welfare Facilities A proportion of construction workers will be housed in accommodation within the development area.	As outlined in Section 2.2, the peak construction period will see circa 6,000 construction workers on site. Of these workers, LRCH will seek to accommodate approximately 25% on site during the week, equating to approximately 1,500 staff. This will directly minimise the impact of construction workers otherwise travelling to and from site daily using travel options across a greater distance.	1

11. Guaranteed Journey Home Scheme London Resort would cover the cost of a door-to-door commute by public transport in the event a ridesharing arrangement breaks down at short notice.	This policy will provide a reassurance measure that helps alleviate any concerns construction workers may have over entering into ridesharing arrangements with colleagues. In the event a ridesharing arrangement fails at short notice, a construction worker who has registered a car-sharer can take a public transport option as an alternative and submit the cost as an expense claim for reimbursement.	1,4

5.4 MANAGEMENT AND DELIVERY PLAN

5.4.1. LRCH will appoint a Resort Travel Coordinator (RTC) to work alongside the Construction Site Manager to oversee implementation of the TDMP measures outlined.

5.4.2. Their duties will also include liaising directly with construction workers and mobility service to obtain feedback, identify issues and opportunities, as well as to monitor travel patterns. This will be an on-going process throughout the construction phase to ensure the TDM plan objectives are achieved over time. More generally the role of the RTC will include:

- Ensuring the measures identified in this chapter are implemented in the required timeframe;
- Ensuring all travel information and data disseminated to construction workers is accurate;
- The on-going monitoring of travel outcomes and subsequent reporting to the Construction Site Manager and wider stakeholders;
- Acting as a key point of contact for travel queries from construction workers;
- Assisting in the decision-making process on any new or emerging measures to implement; and
- Revise or implement new measures as necessary by agreement.

5.4.3. The RTC will oversee this process for the entire construction period through to full build-out and the role will be funded by LRCH.

5.4.4. The measures outlined in this chapter will be implemented throughout the construction phase at London Resort. In some instances, measures will be developed and introduced immediately for the planned commencement of construction activity. Other measures may be developed and introduced subsequently, for example in line with the planned phased introduction of specific public transport or share mobility services connecting with London Resort.

5.4.5. The RTC will prepare a detailed implementation plan prior to the commencement of construction activity which will set out the timeframe for individually measures to be implemented. The detailed implementation plan will be made available to key stakeholders, including Kent County Council, Thurrock Council and Highways England to demonstrate exactly how and when measures will be introduced as well as opportunities to work in partnership or create added value by complementing any wider investment programmes. Thereafter, further measures may be introduced, scaled-up or refined subject to user demand and feedback received from construction workers.

5.4.6. This approach will mean the approach at London Resort maintains flexibility to respond to changing travel demands and new opportunities in the transport industry that become evident over time.

5.5 MONITORING AND REVIEW

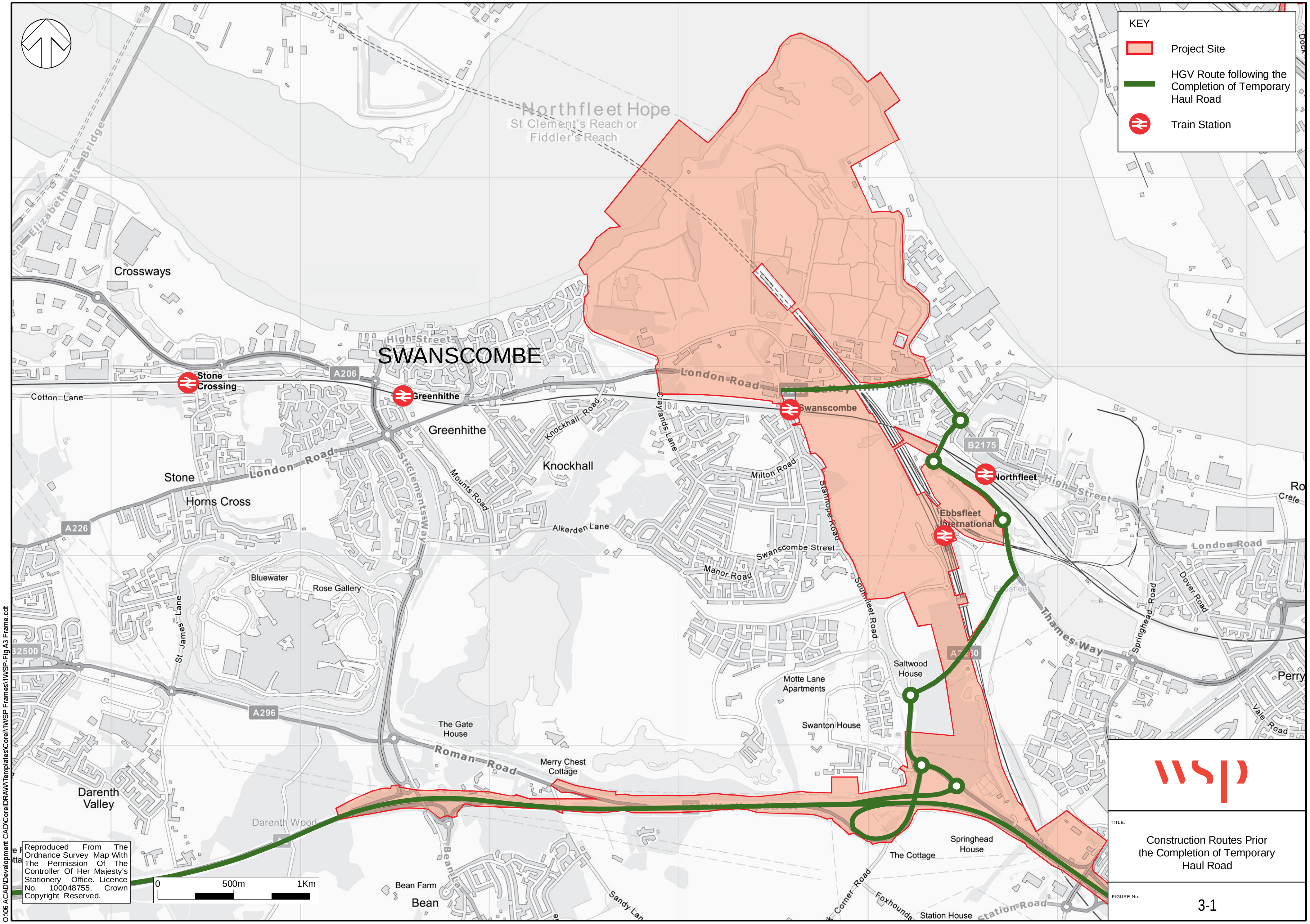
5.5.1. The CTMP CWTDM plan is a continuous process which can benefit from monitoring and review, making revisions over time to ensure the programme of measures being delivered remains relevant, and that the desired outcomes are being achieved.

5.5.2. The RTC will therefore implement the following monitoring and review processes:

- to undertake a baseline off-site parking survey prior to commencement of construction;
- Snapshot travel survey – a snapshot travel survey with construction workers will be undertaken within three months of commencement of construction activity. This will collect data on travel patterns, including mode of travel, arrival and departure profiles, trip origins and destinations, and feedback on the TDMP measures; and
- Workshop discussion with construction workers – a selection of workers will be invited to meet with the RTC to discuss how they travel to the site, reasons behind their travel, and any travel issues to resolve or opportunities to explore.

5.5.3. Once analysed this information will be collated within a Monitoring Report, prepared by the RTC and circulated to interested parties, including the Construction Site Manager, LRCH, Kent County Council and Thurrock Council. The report will include information on travel outcomes and associated recommendations.

5.5.4. This process will be repeated annually until completion of the construction phase to continually capture travel information and inform potential revisions to the TDMP.


KEY
Project Site
HGV Route following the Completion of Temporary Haul Road
Train Station
Northfleet Hope
St Clement's Reach or Fiddler's Reach
SWANSCOMBE
Crossways
Stone Crossing
Greenhithe
Swanscombe
Northfleet
Ebbsfleet International
High Street
London Road
Cotton Lane
A206
A226
A296
B2175
B2500
Greenhithe
Knockhall
Knockhall Road
Stone
Horns Cross
St Clements Way
Mounts Road
Alkerden Lane
Craylands Lane
Milton Road
Stanhope Road
Swanscombe Street
Manor Road
Southfleet Road
Thames Way
Springhead Road
Dover Road
Vale Road
Perry
Bluewater
Rose Gallery
St James Lane
Saltwood House
Motte Lane Apartments
Swanton House
The Gate House
Roman Road
Merry Chest Cottage
Darenth Valley
Darenth Wood
Bean Lane
Bean Farm
Bean
Sandy Lane
Springhead House
The Cottage
Station House
Station Road
Foxhounds
Elizabeth II Bridge
Reproduced From The Ordnance Survey Map With The Permission Of The Controller Of Her Majesty's Stationery Office. Licence No. 100048755. Crown Copyright Reserved.
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3-1
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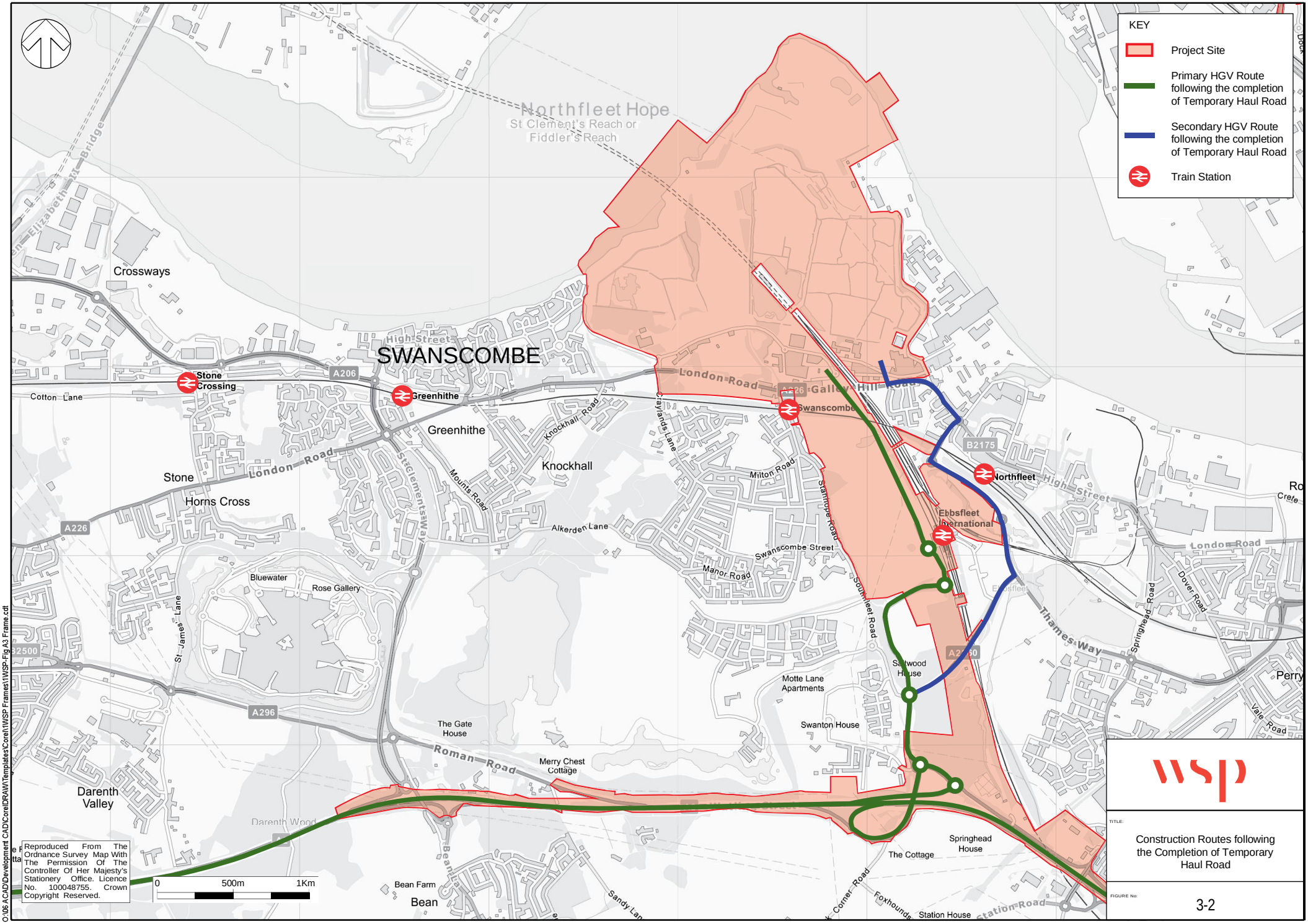
KEY
Project Site
Primary HGV Route following the completion of Temporary Haul Road
Secondary HGV Route following the completion of Temporary Haul Road
Train Station
Northfleet Hope
St Clement's Reach or Fiddler's Reach
Crossways
SWANSCOMBE
High Street
Stone Crossing
Greenhithe
A206
Cotton Lane
London Road
Knockhall Road
Craylands Lane
Galley Hill Road
B2175
Swanscombe
Northfleet
High Street
Stone
Horns Cross
A226
St Clements Way
Mounts Road
Knockhall
Milton Road
Stonepit Road
Ebbsfleet International
Alkerden Lane
Swanscombe Street
Manor Road
Southfleet Road
Bluewater
Rose Gallery
St James Lane
B2500
A296
Roman Road
The Gate House
Merry Chest Cottage
Motte Lane Apartments
Swanton House
Sedlwood House
Thames Way
Springhead Road
Dover Road
Vale Road
Darenth Valley
Darenth Wood
Bean Farm
Bean
Sandy Lane
The Cottage
Springhead House
Foxhounds
Station House
Station Road
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1Km
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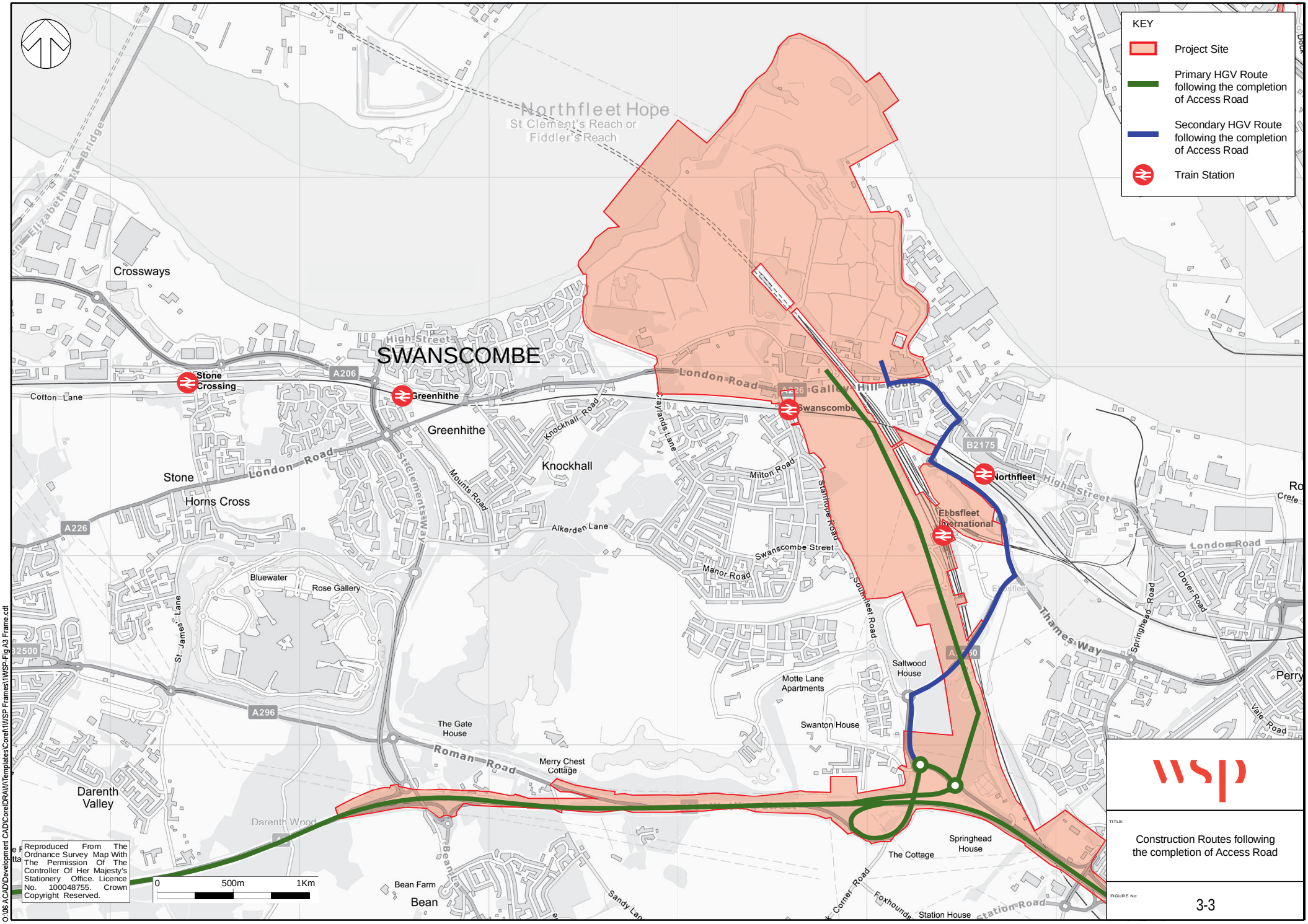
wsp
TITLE:
Construction Routes following the Completion of Temporary Haul Road
FIGURE No:
3-2


KEY
Project Site
Primary HGV Route following the completion of Access Road
Secondary HGV Route following the completion of Access Road
Train Station
Northfleet Hope
St Clement's Reach or Fiddler's Reach
Crossways
SWANSCOMBE
High Street
Stone Crossing
Greenhithe
Cotton Lane
A206
London Road
Knockhall Road
Crayfields Lane
Knockhall
Stone
Horns Cross
A226
St Clements Way
Mounts Road
Milton Road
Alkerden Lane
Swanscombe Street
Manor Road
Scumbleet Road
Bluewater
Rose Gallery
St James Lane
B2500
A296
Roman Road
The Gate House
Merry Chest Cottage
Darenth Valley
Darenth Wood
Bean Farm
Bean
Sandy Lane
B2175
Northfleet
Ebbsfleet International
Galley Hill Road
Saltwood House
Motte Lane Apartments
Swanton House
Springhead House
The Cottage
Foxhounds
Station House
Station Road
Thames Way
Springhead Road
Dover Road
Vale Road
Perry
Crete
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1Km
wsp
TITLE:
Construction Routes following the completion of Access Road
FIGURE No:
3-3
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KEY
Project Site
Primary Route
Train Station
GRAYS
TILBURY
River Thames
Northfleet Hope
St Clement's Reach or
Fiddler's Reach
A13
A1089
A126
A1012
A1306
A1013
A1090
B149
B189
B186
B1335
A226
Chafford Hundred
North Stifford
South Stifford
Little Thurrock
Chadwell St Mary
Orsett Heath
West Tilbury
Low Street
East Tilbury
Linford
Southfields
Thurrock Park
Biggin
Hutts Hill
Tilbury Town
Grays
Hill Farm
Bridge Meadow Farm
Pumphouse Cottage
Stifford Clays Farm House
Springfield Farm
Gammon Staples Farmhouse
Five Chimney Cottages
Heath Place
Potash Cottages
Murrells Cottage
The Red House
Old Kennels Farm
Collingwood Farm
Brook Farm
High House
Mill House Farm
Bookland
Ashlea Farm
Jucrei
Turnpike Cottages
Cranes House
Broom Hill
Gunhill Farm
Hall Hill
Hob Hill
Hobhill Farm
Bretts Farm
Chadwell Place Cottages
Railway Cottages
Gravelpit Farm
Orchard House
Goshem's Farm
Buckland
Sutton's Farm
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0
500m
1Km
wsp
TITLE:
Construction Route to Essex Project Site
FIGURE No:
3-4
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Appendix A

TRICS OUTPUTS

Calculation Reference: AUDIT-100319-201008-1056

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

01	GREATER LONDON		
	HD	HILLINGDON	2 days
02	SOUTH EAST		
	HC	HAMPSHIRE	1 days
	HF	HERTFORDSHIRE	1 days
	RE	READING	1 days
	WS	WEST SUSSEX	1 days
03	SOUTH WEST		
	BR	BRISTOL CITY	1 days
	CW	CORNWALL	2 days
	DC	DORSET	1 days
04	EAST ANGLIA		
	NF	NORFOLK	2 days
	SF	SUFFOLK	1 days
06	WEST MIDLANDS		
	WM	WEST MIDLANDS	3 days
08	NORTH WEST		
	CH	CHESHIRE	1 days
	LC	LANCASHIRE	3 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
Actual Range: 150 to 17675 (units: sqm)
Range Selected by User: 150 to 43325 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/06 to 14/11/19

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

Selected survey days:

Monday	1 days
Tuesday	4 days
Wednesday	4 days
Thursday	8 days
Friday	3 days

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

Selected survey types:

Manual count	20 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 undertaking using machines.

Selected Locations:

Edge of Town Centre	1
Suburban Area (PPS6 Out of Centre)	8
Edge of Town	10
Free Standing (PPS6 Out 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:

Industrial Zone	17
Commercial Zone	1
Out of Town	1
No Sub Category	1

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

Secondary Filtering selection:

Use Class:

B1	20 days

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

Filter by Use Class Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	2 days
5,001 to 10,000	1 days
10,001 to 15,000	5 days
15,001 to 20,000	3 days
20,001 to 25,000	3 days
25,001 to 50,000	5 days

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

Population within 5 miles:

5,001 to 25,000	1 days
50,001 to 75,000	3 days
75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	11 days
250,001 to 500,000	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	6 days
1.1 to 1.5	13 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	1 days
No	19 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	19 days
1b Very poor	1 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 *Survey Type: MANUAL*

2 CH-02-C-02 INDUSTRIAL MATERIALS CHESHIRE
JUPITER DRIVE
CHESTER
CHESTER W. EMP. PARK
Edge of Town
Industrial Zone
Total Gross floor area: 8100 sqm
Survey date: WEDNESDAY 19/11/14 *Survey Type: MANUAL*

3 CW-02-C-01 FOOD DISTRIBUTION CORNWALL
WILSON WAY
CAMBORNE
POOL
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 10200 sqm
Survey date: FRIDAY 08/06/07 *Survey Type: MANUAL*

4 CW-02-C-02 LIGHTING COMPANY CORNWALL
NORMANDY WAY
BODMIN

Edge of Town
Industrial Zone
Total Gross floor area: 17675 sqm
Survey date: WEDNESDAY 06/06/07 *Survey Type: MANUAL*

5 DC-02-C-07 NEW LOOK DORSET
MERCERY ROAD
WEYMOUTH

Edge of Town
No Sub Category
Total Gross floor area: 5467 sqm
Survey date: MONDAY 07/07/08 *Survey Type: MANUAL*

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 *Survey Type: MANUAL*

7 HD-02-C-01 TARMAC PRODUCTION HILLINGDON
PUMP LANE
HAYES

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 3912 sqm
Survey date: FRIDAY 11/05/12 *Survey Type: MANUAL*

8 HD-02-C-02 WINDOW PRODUCTION HILLINGDON
BETAM ROAD
HAYES

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 1080 sqm
Survey date: WEDNESDAY 05/12/12 *Survey Type: MANUAL*

9 HF-02-C-01 INDUSTRIAL UNIT HERTFORDSHIRE
BRIDGE ROAD EAST
WELWYN GARDEN CITY

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 1800 sqm
Survey date: THURSDAY 17/07/08 *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

10 LC-02-C-02 RECYCLING CO. LANCASHIRE
ESSEX STREET
PRESTON
RED SCAR IND ESTATE
Edge of Town Centre
Industrial Zone
Total Gross floor area: 8000 sqm
Survey date: THURSDAY 10/05/12 Survey Type: MANUAL

11 LC-02-C-03 TIMBER SUPPLIES LANCASHIRE
GOLDEN HILL LANE
LEYLAND

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 150 sqm
Survey date: TUESDAY 06/11/18 Survey Type: MANUAL

12 LC-02-C-04 POWDER COATINGS LANCASHIRE
CHORLEY ROAD
BLACKPOOL
LITTLE CARLETON
Edge of Town
Industrial Zone
Total Gross floor area: 1010 sqm
Survey date: THURSDAY 20/06/19 Survey Type: MANUAL

13 NF-02-C-03 SHEET METAL CONTRACTOR NORFOLK
ELVIN WAY
NORWICH
HELLESDON
Edge of Town
Industrial Zone
Total Gross floor area: 260 sqm
Survey date: THURSDAY 07/11/19 Survey Type: MANUAL

14 NF-02-C-04 EXHIBITION DESIGN & MANUF. NORFOLK
FLETCHER WAY
NORWICH
UPPER HELLESDON
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 690 sqm
Survey date: THURSDAY 14/11/19 Survey Type: MANUAL

15 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 Survey Type: MANUAL

16 SF-02-C-01 JOINERY SUFFOLK
ANSON ROAD
IPSWICH
MARTLESHAM HEATH
Edge of Town
Industrial Zone
Total Gross floor area: 1100 sqm
Survey date: FRIDAY 12/07/13 Survey Type: MANUAL

17 WM-02-C-01 METAL BEARINGS WEST MIDLANDS
FORGE LANE
SUTTON COLDFIELD
MINWORTH
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 4200 sqm
Survey date: TUESDAY 25/11/08 Survey Type: MANUAL

18 WM-02-C-02 ARDONPRINT WEST MIDLANDS
SYDNEY ROAD
BIRMINGHAM
SMALL HEATH
Suburban Area (PPS6 Out of Centre)
Commercial Zone
Total Gross floor area: 300 sqm
Survey date: WEDNESDAY 17/06/09 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

19 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*

20 WS-02-C-02 AVIATION COMPANY WEST SUSSEX
MAYDWELL AVENUE
NEAR HORSHAM
SLINFOLD
Free Standing (PPS6 Out of Town)
Out of Town
Total Gross floor area: 11375 sqm
Survey date: THURSDAY *23/01/14* *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 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	1	11375	0.149	1	11375	0.044	1	11375	0.193
07:00 - 08:00	20	4275	0.449	20	4275	0.095	20	4275	0.544
08:00 - 09:00	20	4275	0.833	20	4275	0.132	20	4275	0.965
09:00 - 10:00	20	4275	0.258	20	4275	0.151	20	4275	0.409
10:00 - 11:00	20	4275	0.192	20	4275	0.163	20	4275	0.355
11:00 - 12:00	20	4275	0.138	20	4275	0.143	20	4275	0.281
12:00 - 13:00	20	4275	0.182	20	4275	0.250	20	4275	0.432
13:00 - 14:00	20	4275	0.326	20	4275	0.253	20	4275	0.579
14:00 - 15:00	20	4275	0.170	20	4275	0.282	20	4275	0.452
15:00 - 16:00	20	4275	0.112	20	4275	0.166	20	4275	0.278
16:00 - 17:00	20	4275	0.127	20	4275	0.379	20	4275	0.506
17:00 - 18:00	20	4275	0.084	20	4275	0.674	20	4275	0.758
18:00 - 19:00	20	4275	0.050	20	4275	0.298	20	4275	0.348
19:00 - 20:00	1	11375	0.044	1	11375	0.132	1	11375	0.176
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.114			3.162			6.276

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.*

Parameter summary

Trip rate parameter range selected:	150 - 17675 (units: sqm)
Survey date date range:	01/01/06 - 14/11/19
Number of weekdays (Monday-Friday):	20
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

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	1	11375	0.000	1	11375	0.000	1	11375	0.000
07:00 - 08:00	20	4275	0.013	20	4275	0.012	20	4275	0.025
08:00 - 09:00	20	4275	0.001	20	4275	0.004	20	4275	0.005
09:00 - 10:00	20	4275	0.006	20	4275	0.006	20	4275	0.012
10:00 - 11:00	20	4275	0.007	20	4275	0.007	20	4275	0.014
11:00 - 12:00	20	4275	0.005	20	4275	0.005	20	4275	0.010
12:00 - 13:00	20	4275	0.004	20	4275	0.004	20	4275	0.008
13:00 - 14:00	20	4275	0.004	20	4275	0.004	20	4275	0.008
14:00 - 15:00	20	4275	0.004	20	4275	0.004	20	4275	0.008
15:00 - 16:00	20	4275	0.000	20	4275	0.001	20	4275	0.001
16:00 - 17:00	20	4275	0.011	20	4275	0.007	20	4275	0.018
17:00 - 18:00	20	4275	0.002	20	4275	0.007	20	4275	0.009
18:00 - 19:00	20	4275	0.004	20	4275	0.004	20	4275	0.008
19:00 - 20:00	1	11375	0.000	1	11375	0.000	1	11375	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.061			0.065			0.126

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	1	11375	0.000	1	11375	0.000	1	11375	0.000
07:00 - 08:00	20	4275	0.015	20	4275	0.036	20	4275	0.051
08:00 - 09:00	20	4275	0.032	20	4275	0.034	20	4275	0.066
09:00 - 10:00	20	4275	0.041	20	4275	0.039	20	4275	0.080
10:00 - 11:00	20	4275	0.050	20	4275	0.050	20	4275	0.100
11:00 - 12:00	20	4275	0.041	20	4275	0.047	20	4275	0.088
12:00 - 13:00	20	4275	0.037	20	4275	0.040	20	4275	0.077
13:00 - 14:00	20	4275	0.034	20	4275	0.033	20	4275	0.067
14:00 - 15:00	20	4275	0.037	20	4275	0.037	20	4275	0.074
15:00 - 16:00	20	4275	0.027	20	4275	0.019	20	4275	0.046
16:00 - 17:00	20	4275	0.030	20	4275	0.020	20	4275	0.050
17:00 - 18:00	20	4275	0.007	20	4275	0.007	20	4275	0.014
18:00 - 19:00	20	4275	0.005	20	4275	0.005	20	4275	0.010
19:00 - 20:00	1	11375	0.000	1	11375	0.000	1	11375	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.356			0.367			0.723

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
PSVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	1	11375	0.000	1	11375	0.000	1	11375	0.000
07:00 - 08:00	20	4275	0.000	20	4275	0.000	20	4275	0.000
08:00 - 09:00	20	4275	0.000	20	4275	0.000	20	4275	0.000
09:00 - 10:00	20	4275	0.001	20	4275	0.001	20	4275	0.002
10:00 - 11:00	20	4275	0.001	20	4275	0.000	20	4275	0.001
11:00 - 12:00	20	4275	0.000	20	4275	0.001	20	4275	0.001
12:00 - 13:00	20	4275	0.001	20	4275	0.001	20	4275	0.002
13:00 - 14:00	20	4275	0.000	20	4275	0.000	20	4275	0.000
14:00 - 15:00	20	4275	0.000	20	4275	0.000	20	4275	0.000
15:00 - 16:00	20	4275	0.000	20	4275	0.000	20	4275	0.000
16:00 - 17:00	20	4275	0.000	20	4275	0.000	20	4275	0.000
17:00 - 18:00	20	4275	0.000	20	4275	0.000	20	4275	0.000
18:00 - 19:00	20	4275	0.000	20	4275	0.000	20	4275	0.000
19:00 - 20:00	1	11375	0.000	1	11375	0.000	1	11375	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.003			0.003			0.006

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	1	11375	0.000	1	11375	0.000	1	11375	0.000
07:00 - 08:00	20	4275	0.020	20	4275	0.001	20	4275	0.021
08:00 - 09:00	20	4275	0.009	20	4275	0.000	20	4275	0.009
09:00 - 10:00	20	4275	0.002	20	4275	0.000	20	4275	0.002
10:00 - 11:00	20	4275	0.000	20	4275	0.000	20	4275	0.000
11:00 - 12:00	20	4275	0.000	20	4275	0.000	20	4275	0.000
12:00 - 13:00	20	4275	0.000	20	4275	0.001	20	4275	0.001
13:00 - 14:00	20	4275	0.011	20	4275	0.008	20	4275	0.019
14:00 - 15:00	20	4275	0.001	20	4275	0.012	20	4275	0.013
15:00 - 16:00	20	4275	0.000	20	4275	0.002	20	4275	0.002
16:00 - 17:00	20	4275	0.001	20	4275	0.021	20	4275	0.022
17:00 - 18:00	20	4275	0.001	20	4275	0.013	20	4275	0.014
18:00 - 19:00	20	4275	0.000	20	4275	0.005	20	4275	0.005
19:00 - 20:00	1	11375	0.000	1	11375	0.000	1	11375	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.045			0.063			0.108

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-100319-201008-1052

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

01	GREATER LONDON		
	BT	BRENT	1 days
03	SOUTH WEST		
	BR	BRISTOL CITY	1 days
	DV	DEVON	2 days
05	EAST MIDLANDS		
	DS	DERBYSHIRE	1 days
	NR	NORTHAMPTONSHIRE	1 days
06	WEST MIDLANDS		
	HE	HEREFORDSHIRE	1 days
	WM	WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	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

Primary Filtering selection:

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

Parameter: Gross floor area
Actual Range: 950 to 20000 (units: sqm)
Range Selected by User: 150 to 43325 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/06 to 14/11/19

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

Selected survey days:

Monday	1 days
Tuesday	4 days
Wednesday	1 days
Thursday	5 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 undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	6
Edge of Town	4
Neighbourhood Centre (PPS6 Local Centre)	1

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

Selected Location Sub Categories:

Industrial Zone	9
Commercial Zone	1
Village	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:

B2	11 days

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

Filter by Use Class Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Population within 1 mile:

1,001 to 5,000	3 days
5,001 to 10,000	1 days
10,001 to 15,000	2 days
15,001 to 20,000	1 days
25,001 to 50,000	3 days
50,001 to 100,000	1 days

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

Population within 5 miles:

5,001 to 25,000	1 days
50,001 to 75,000	2 days
125,001 to 250,000	3 days
250,001 to 500,000	4 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	2 days
1.1 to 1.5	8 days

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

Travel Plan:

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-01 MECH. ENGINEERS BRISTOL CITY
NOVERS HILL
BRISTOL
BEDMINSTER
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 1100 sqm
Survey date: MONDAY 19/10/09 Survey Type: MANUAL

2 BT-02-C-02 FOOD PRODUCTION BRENT
ABBEYDALE ROAD
ALPERTON

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 6100 sqm
Survey date: WEDNESDAY 10/09/14 Survey Type: MANUAL

3 CH-02-C-01 BAKERY CHESHIRE
GADBROOK PARK
NORTHWICH
HIGH SHURLACH
Edge of Town
Industrial Zone
Total Gross floor area: 15000 sqm
Survey date: THURSDAY 21/06/07 Survey Type: MANUAL

4 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 Survey Type: MANUAL

5 DV-02-C-01 TUBE MANUFACTURE DEVON
PLYMBRIDGE ROAD
PLYMOUTH
ESTOVER
Edge of Town
Industrial Zone
Total Gross floor area: 20000 sqm
Survey date: TUESDAY 17/07/12 Survey Type: MANUAL

6 DV-02-C-02 ENERGY RECOVERY FACILITY DEVON
GRACE ROAD SOUTH
EXETER
MARSH BARTON TRAD. EST.
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 3513 sqm
Survey date: THURSDAY 06/07/17 Survey Type: MANUAL

7 HE-02-C-02 THERMAL PROCESSING HEREFORDSHIRE
COLLEGE ROAD
HEREFORD
BURCOTT
Edge of Town
Commercial Zone
Total Gross floor area: 1880 sqm
Survey date: TUESDAY 22/10/13 Survey Type: MANUAL

8 NR-02-C-01 PAPER COMPANY NORTHAMPTONSHIRE
RHOSILI ROAD
NORTHAMPTON
BRACKMILLS
Edge of Town
Industrial Zone
Total Gross floor area: 11500 sqm
Survey date: THURSDAY 27/11/08 Survey Type: MANUAL

9 NY-02-C-01 FOOD PRODUCTION NORTH YORKSHIRE
FEARBY ROAD
MASHAM

Neighbourhood Centre (PPS6 Local Centre)
Village
Total Gross floor area: 2491 sqm
Survey date: TUESDAY 23/09/08 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

10	TW-02-C-01	INDUSTRIAL UNIT		TYNE & WEAR
	SHAFTESBURY AVENUE			
	JARROW			
	TYNE POINT IND. ESTATE			
	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-04	FOUNDRY		WEST MIDLANDS
	STOURVALE ROAD			
	STOURBRIDGE			
	LYE			
	Suburban Area (PPS6 Out of Centre)			
	Industrial Zone			
	Total Gross floor area:		4324 sqm	
	Survey date: TUESDAY		*21/11/17*	*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 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	1	6100	0.443	1	6100	0.164	1	6100	0.607
07:00 - 08:00	11	6314	0.243	11	6314	0.125	11	6314	0.368
08:00 - 09:00	11	6314	0.288	11	6314	0.078	11	6314	0.366
09:00 - 10:00	11	6314	0.177	11	6314	0.125	11	6314	0.302
10:00 - 11:00	11	6314	0.101	11	6314	0.094	11	6314	0.195
11:00 - 12:00	11	6314	0.101	11	6314	0.091	11	6314	0.192
12:00 - 13:00	11	6314	0.122	11	6314	0.157	11	6314	0.279
13:00 - 14:00	11	6314	0.243	11	6314	0.138	11	6314	0.381
14:00 - 15:00	11	6314	0.154	11	6314	0.245	11	6314	0.399
15:00 - 16:00	11	6314	0.114	11	6314	0.180	11	6314	0.294
16:00 - 17:00	11	6314	0.088	11	6314	0.271	11	6314	0.359
17:00 - 18:00	11	6314	0.042	11	6314	0.222	11	6314	0.264
18:00 - 19:00	10	6336	0.090	10	6336	0.139	10	6336	0.229
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.206			2.029			4.235

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.*

Parameter summary

Trip rate parameter range selected:	950 - 20000 (units: sqm)
Survey date date range:	01/01/06 - 14/11/19
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

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	1	6100	0.000	1	6100	0.000	1	6100	0.000
07:00 - 08:00	11	6314	0.000	11	6314	0.000	11	6314	0.000
08:00 - 09:00	11	6314	0.001	11	6314	0.001	11	6314	0.002
09:00 - 10:00	11	6314	0.000	11	6314	0.000	11	6314	0.000
10:00 - 11:00	11	6314	0.000	11	6314	0.000	11	6314	0.000
11:00 - 12:00	11	6314	0.000	11	6314	0.000	11	6314	0.000
12:00 - 13:00	11	6314	0.000	11	6314	0.000	11	6314	0.000
13:00 - 14:00	11	6314	0.000	11	6314	0.000	11	6314	0.000
14:00 - 15:00	11	6314	0.003	11	6314	0.003	11	6314	0.006
15:00 - 16:00	11	6314	0.001	11	6314	0.001	11	6314	0.002
16:00 - 17:00	11	6314	0.000	11	6314	0.000	11	6314	0.000
17:00 - 18:00	11	6314	0.001	11	6314	0.001	11	6314	0.002
18:00 - 19:00	10	6336	0.000	10	6336	0.000	10	6336	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.

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TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	1	6100	0.016	1	6100	0.000	1	6100	0.016
07:00 - 08:00	11	6314	0.022	11	6314	0.027	11	6314	0.049
08:00 - 09:00	11	6314	0.035	11	6314	0.033	11	6314	0.068
09:00 - 10:00	11	6314	0.060	11	6314	0.036	11	6314	0.096
10:00 - 11:00	11	6314	0.039	11	6314	0.032	11	6314	0.071
11:00 - 12:00	11	6314	0.037	11	6314	0.023	11	6314	0.060
12:00 - 13:00	11	6314	0.048	11	6314	0.039	11	6314	0.087
13:00 - 14:00	11	6314	0.043	11	6314	0.026	11	6314	0.069
14:00 - 15:00	11	6314	0.039	11	6314	0.019	11	6314	0.058
15:00 - 16:00	11	6314	0.020	11	6314	0.013	11	6314	0.033
16:00 - 17:00	11	6314	0.013	11	6314	0.016	11	6314	0.029
17:00 - 18:00	11	6314	0.009	11	6314	0.003	11	6314	0.012
18:00 - 19:00	10	6336	0.009	10	6336	0.013	10	6336	0.022
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.390			0.280			0.670

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.

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TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
PSVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	1	6100	0.000	1	6100	0.000	1	6100	0.000
07:00 - 08:00	11	6314	0.000	11	6314	0.000	11	6314	0.000
08:00 - 09:00	11	6314	0.000	11	6314	0.000	11	6314	0.000
09:00 - 10:00	11	6314	0.000	11	6314	0.000	11	6314	0.000
10:00 - 11:00	11	6314	0.000	11	6314	0.000	11	6314	0.000
11:00 - 12:00	11	6314	0.000	11	6314	0.000	11	6314	0.000
12:00 - 13:00	11	6314	0.001	11	6314	0.000	11	6314	0.001
13:00 - 14:00	11	6314	0.000	11	6314	0.000	11	6314	0.000
14:00 - 15:00	11	6314	0.001	11	6314	0.000	11	6314	0.001
15:00 - 16:00	11	6314	0.000	11	6314	0.000	11	6314	0.000
16:00 - 17:00	11	6314	0.000	11	6314	0.000	11	6314	0.000
17:00 - 18:00	11	6314	0.000	11	6314	0.000	11	6314	0.000
18:00 - 19:00	10	6336	0.000	10	6336	0.000	10	6336	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.002			0.000			0.002

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.

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TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	1	6100	0.098	1	6100	0.000	1	6100	0.098
07:00 - 08:00	11	6314	0.007	11	6314	0.003	11	6314	0.010
08:00 - 09:00	11	6314	0.007	11	6314	0.003	11	6314	0.010
09:00 - 10:00	11	6314	0.000	11	6314	0.000	11	6314	0.000
10:00 - 11:00	11	6314	0.000	11	6314	0.003	11	6314	0.003
11:00 - 12:00	11	6314	0.000	11	6314	0.001	11	6314	0.001
12:00 - 13:00	11	6314	0.000	11	6314	0.003	11	6314	0.003
13:00 - 14:00	11	6314	0.010	11	6314	0.004	11	6314	0.014
14:00 - 15:00	11	6314	0.013	11	6314	0.014	11	6314	0.027
15:00 - 16:00	11	6314	0.001	11	6314	0.004	11	6314	0.005
16:00 - 17:00	11	6314	0.003	11	6314	0.006	11	6314	0.009
17:00 - 18:00	11	6314	0.001	11	6314	0.009	11	6314	0.010
18:00 - 19:00	10	6336	0.005	10	6336	0.008	10	6336	0.013
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.145			0.058			0.203

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.

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Calculation Reference: AUDIT-100319-201009-1041

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : F - WAREHOUSING (COMMERCIAL)
TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON		
	EN	ENFIELD	1 days
	HD	HILLINGDON	1 days
	HO	HOUNSLOW	1 days
	KI	KINGSTON	1 days
02	SOUTH EAST		
	EX	ESSEX	1 days
	HC	HAMPSHIRE	2 days
	HF	HERTFORDSHIRE	1 days
	KC	KENT	1 days
	SC	SURREY	1 days
03	SOUTH WEST		
	CW	CORNWALL	1 days
	DV	DEVON	2 days
04	EAST ANGLIA		
	SF	SUFFOLK	2 days
05	EAST MIDLANDS		
	LN	LINCOLNSHIRE	1 days
06	WEST MIDLANDS		
	WM	WEST MIDLANDS	2 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	WY	WEST YORKSHIRE	2 days
08	NORTH WEST		
	LC	LANCASHIRE	1 days
09	NORTH		
	CB	CUMBRIA	1 days
	TV	TEES VALLEY	2 days
	TW	TYNE & WEAR	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
Actual Range: 190 to 80066 (units: sqm)
Range Selected by User: 190 to 80066 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/06 to 03/04/19

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

Selected survey days:

Monday	3 days
Tuesday	6 days
Wednesday	5 days
Thursday	5 days
Friday	6 days

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

Selected survey types:

Manual count	25 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 undertaking using machines.

Selected Locations:

Town Centre	1
Edge of Town Centre	2
Suburban Area (PPS6 Out of Centre)	6
Edge of Town	15
Free Standing (PPS6 Out 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:

Industrial Zone	15
Commercial Zone	3
Residential Zone	2
Built-Up Zone	1
Out of Town	1
No Sub Category	3

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

Secondary Filtering selection:

Use Class:

B8	25 days

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

Filter by Use Class Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	5 days
5,001 to 10,000	4 days
10,001 to 15,000	6 days
15,001 to 20,000	2 days
20,001 to 25,000	2 days
25,001 to 50,000	4 days
50,001 to 100,000	1 days

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

Population within 5 miles:

5,001 to 25,000	3 days
25,001 to 50,000	2 days
50,001 to 75,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	8 days
250,001 to 500,000	4 days
500,001 or More	6 days

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

Car ownership within 5 miles:

0.6 to 1.0	10 days
1.1 to 1.5	14 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	3 days
No	22 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	22 days
1a (Low) Very poor	1 days
1b Very poor	1 days
2 Poor	1 days

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

LIST OF SITES relevant to selection parameters

1 CB-02-F-01 DOMINO'S PIZZA CUMBRIA
COWPER ROAD
PENRITH
GILWILLY IND. ESTATE
Edge of Town
Industrial Zone
Total Gross floor area: 2950 sqm
Survey date: TUESDAY 10/06/14 *Survey Type: MANUAL*

2 CW-02-F-01 WAREHOUSING CORNWALL
A390
NEAR TRURO
THREEMILESTONE
Edge of Town
No Sub Category
Total Gross floor area: 5150 sqm
Survey date: TUESDAY 18/09/07 *Survey Type: MANUAL*

3 DV-02-F-01 OPTICS WAREHOUSE DEVON
ALDERS WAY
PAIGNTON

Edge of Town
Industrial Zone
Total Gross floor area: 190 sqm
Survey date: FRIDAY 29/03/19 *Survey Type: MANUAL*

4 DV-02-F-02 LIDL DISTRIBUTION CENTRE DEVON
CHILLPARK BRAKE
NEAR EXETER
CLYST HONITON
Free Standing (PPS6 Out of Town)
Out of Town
Total Gross floor area: 50000 sqm
Survey date: WEDNESDAY 03/04/19 *Survey Type: MANUAL*

5 EN-02-F-01 WAREHOUSING ENFIELD
OAKTHORPE ESTATE
ENFIELD
PALMERS GREEN
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 13251 sqm
Survey date: WEDNESDAY 19/11/08 *Survey Type: MANUAL*

6 EX-02-F-01 SPORTS SUPPLEMENTS ESSEX
BRUNEL WAY
COLCHESTER
SEVERALLS INDUSTRIAL PK
Edge of Town
Industrial Zone
Total Gross floor area: 6560 sqm
Survey date: FRIDAY 18/05/18 *Survey Type: MANUAL*

7 HC-02-F-01 WAREHOUSING HAMPSHIRE
MAURETANIA ROAD
SOUTHAMPTON
NURSLING INDUSTRIAL ESTATE
Edge of Town
Industrial Zone
Total Gross floor area: 4000 sqm
Survey date: WEDNESDAY 21/11/07 *Survey Type: MANUAL*

8 HC-02-F-02 LOGISTICS HAMPSHIRE
RUTHERFORD ROAD
BASINGSTOKE

Suburban Area (PPS6 Out of Centre)
Commercial Zone
Total Gross floor area: 13200 sqm
Survey date: THURSDAY 16/06/16 *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 HD-02-F-01 FOOD DISTRIBUTOR HILLINGDON
NINE ACRES CLOSE
HAYES

Edge of Town
Industrial Zone
Total Gross floor area: 8673 sqm
Survey date: THURSDAY 27/09/18 Survey Type: MANUAL

10 HF-02-F-03 DISTRIBUTION CEN. HERTFORDSHIRE

HATFIELD
HATFIELD BUSINESS CEN.
Edge of Town
Commercial Zone
Total Gross floor area: 80000 sqm
Survey date: THURSDAY 10/07/08 Survey Type: MANUAL

11 HO-02-F-01 LOGISTICS AND FREIGHT HOUNSLOW
ASCOT ROAD
FELTHAM

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 13500 sqm
Survey date: WEDNESDAY 23/11/16 Survey Type: MANUAL

12 KC-02-F-02 COMMERCIAL WAREHOUSING KENT
MILLS ROAD
AYLESFORD
QUARRY WOOD
Edge of Town
Industrial Zone
Total Gross floor area: 11200 sqm
Survey date: FRIDAY 22/09/17 Survey Type: MANUAL

13 KI-02-F-01 STATIONERY KINGSTON
OAKCROFT ROAD
CHESSINGTON NORTH

Town Centre
Industrial Zone
Total Gross floor area: 4661 sqm
Survey date: TUESDAY 08/09/09 Survey Type: MANUAL

14 LC-02-F-02 WAREHOUSING LANCASHIRE
CHORLEY ROAD
PRESTON
WALTON-LE-DALE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 1200 sqm
Survey date: FRIDAY 22/06/07 Survey Type: MANUAL

15 LN-02-F-01 BOOK SERVICE LINCOLNSHIRE
TRENT ROAD
GRANTHAM

Edge of Town
No Sub Category
Total Gross floor area: 32300 sqm
Survey date: MONDAY 29/11/10 Survey Type: MANUAL

16 SC-02-F-04 WAREHOUSING SURREY
PRETORIA ROAD
CHERTSEY

Edge of Town
No Sub Category
Total Gross floor area: 4460 sqm
Survey date: TUESDAY 27/11/07 Survey Type: MANUAL

17 SF-02-F-02 WAREHOUSING SUFFOLK
WALTON ROAD
FELIXSTOWE

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 22270 sqm
Survey date: THURSDAY 11/07/13 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

18 SF-02-F-03 ROAD HAULAGE SUFFOLK
CENTRAL AVENUE
IPSWICH
WARREN HEATH
Edge of Town
Industrial Zone
Total Gross floor area: 4700 sqm
Survey date: FRIDAY *18/09/15* *Survey Type: MANUAL*

19 TV-02-F-02 ARGOS WAREHOUSE TEES VALLEY
ROUNDHOUSE ROAD
DARLINGTON
FAVERDALE
Edge of Town
Industrial Zone
Total Gross floor area: 80066 sqm
Survey date: TUESDAY *07/10/08* *Survey Type: MANUAL*

20 TV-02-F-03 ELECTRICAL COMPONENTS TEES VALLEY
UNIT 8,NAVIGATOR COURT
STOCKTON-ON-TEES

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 634 sqm
Survey date: TUESDAY *28/06/11* *Survey Type: MANUAL*

21 TW-02-F-01 ASDA DISTRIBUTION CENTRE TYNE & WEAR
MANDARIN WAY
WASHINGTON
PATTISON IND. ESTATE
Edge of Town
Industrial Zone
Total Gross floor area: 31000 sqm
Survey date: FRIDAY *13/11/15* *Survey Type: MANUAL*

22 WM-02-F-01 LEGETT LOGIS. WEST MIDLANDS
SAMPSON ROAD NORTH
BIRMINGHAM

Edge of Town Centre
Industrial Zone
Total Gross floor area: 4000 sqm
Survey date: WEDNESDAY *17/06/09* *Survey Type: MANUAL*

23 WM-02-F-02 LOGISTICS FIRM WEST MIDLANDS
SOVEREIGN ROAD
BIRMINGHAM
KINGS NORTON
Edge of Town
Commercial Zone
Total Gross floor area: 3625 sqm
Survey date: MONDAY *09/11/15* *Survey Type: MANUAL*

24 WY-02-F-01 ELECTRONICS DISTRIBUTION WEST YORKSHIRE
MORTIMER STREET
CLECKHEATON

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 1507 sqm
Survey date: MONDAY *19/09/16* *Survey Type: MANUAL*

25 WY-02-F-02 DISTRIBUTION COMPANY WEST YORKSHIRE
STAITHGATE LANE
BRADFORD
NEWHALL
Edge of Town
Industrial Zone
Total Gross floor area: 10446 sqm
Survey date: THURSDAY *14/03/19* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	5	17171	0.065	5	17171	0.043	5	17171	0.108
06:00 - 07:00	5	17171	0.115	5	17171	0.065	5	17171	0.180
07:00 - 08:00	25	16382	0.127	25	16382	0.068	25	16382	0.195
08:00 - 09:00	25	16382	0.136	25	16382	0.069	25	16382	0.205
09:00 - 10:00	25	16382	0.110	25	16382	0.071	25	16382	0.181
10:00 - 11:00	25	16382	0.082	25	16382	0.079	25	16382	0.161
11:00 - 12:00	25	16382	0.086	25	16382	0.088	25	16382	0.174
12:00 - 13:00	25	16382	0.088	25	16382	0.095	25	16382	0.183
13:00 - 14:00	25	16382	0.129	25	16382	0.113	25	16382	0.242
14:00 - 15:00	25	16382	0.090	25	16382	0.119	25	16382	0.209
15:00 - 16:00	25	16382	0.087	25	16382	0.112	25	16382	0.199
16:00 - 17:00	25	16382	0.079	25	16382	0.127	25	16382	0.206
17:00 - 18:00	25	16382	0.057	25	16382	0.139	25	16382	0.196
18:00 - 19:00	24	17002	0.034	24	17002	0.087	24	17002	0.121
19:00 - 20:00	5	17171	0.036	5	17171	0.054	5	17171	0.090
20:00 - 21:00	5	17171	0.036	5	17171	0.036	5	17171	0.072
21:00 - 22:00	1	22270	0.031	1	22270	0.018	1	22270	0.049
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.388			1.383			2.771

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.*

Parameter summary

Trip rate parameter range selected:	190 - 80066 (units: sqm)
Survey date date range:	01/01/06 - 03/04/19
Number of weekdays (Monday-Friday):	25
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/F - WAREHOUSING (COMMERCIAL)
TAXIS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	5	17171	0.000	5	17171	0.000	5	17171	0.000
06:00 - 07:00	5	17171	0.001	5	17171	0.001	5	17171	0.002
07:00 - 08:00	25	16382	0.001	25	16382	0.001	25	16382	0.002
08:00 - 09:00	25	16382	0.000	25	16382	0.000	25	16382	0.000
09:00 - 10:00	25	16382	0.000	25	16382	0.000	25	16382	0.000
10:00 - 11:00	25	16382	0.000	25	16382	0.000	25	16382	0.000
11:00 - 12:00	25	16382	0.000	25	16382	0.000	25	16382	0.000
12:00 - 13:00	25	16382	0.000	25	16382	0.000	25	16382	0.000
13:00 - 14:00	25	16382	0.000	25	16382	0.000	25	16382	0.000
14:00 - 15:00	25	16382	0.000	25	16382	0.000	25	16382	0.000
15:00 - 16:00	25	16382	0.000	25	16382	0.000	25	16382	0.000
16:00 - 17:00	25	16382	0.001	25	16382	0.001	25	16382	0.002
17:00 - 18:00	25	16382	0.001	25	16382	0.000	25	16382	0.001
18:00 - 19:00	24	17002	0.000	24	17002	0.000	24	17002	0.000
19:00 - 20:00	5	17171	0.000	5	17171	0.000	5	17171	0.000
20:00 - 21:00	5	17171	0.000	5	17171	0.000	5	17171	0.000
21:00 - 22:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.004			0.003			0.007

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	5	17171	0.022	5	17171	0.033	5	17171	0.055
06:00 - 07:00	5	17171	0.040	5	17171	0.047	5	17171	0.087
07:00 - 08:00	25	16382	0.026	25	16382	0.027	25	16382	0.053
08:00 - 09:00	25	16382	0.031	25	16382	0.030	25	16382	0.061
09:00 - 10:00	25	16382	0.035	25	16382	0.029	25	16382	0.064
10:00 - 11:00	25	16382	0.035	25	16382	0.030	25	16382	0.065
11:00 - 12:00	25	16382	0.030	25	16382	0.032	25	16382	0.062
12:00 - 13:00	25	16382	0.030	25	16382	0.027	25	16382	0.057
13:00 - 14:00	25	16382	0.029	25	16382	0.029	25	16382	0.058
14:00 - 15:00	25	16382	0.029	25	16382	0.024	25	16382	0.053
15:00 - 16:00	25	16382	0.031	25	16382	0.023	25	16382	0.054
16:00 - 17:00	25	16382	0.030	25	16382	0.023	25	16382	0.053
17:00 - 18:00	25	16382	0.023	25	16382	0.021	25	16382	0.044
18:00 - 19:00	24	17002	0.013	24	17002	0.018	24	17002	0.031
19:00 - 20:00	5	17171	0.012	5	17171	0.026	5	17171	0.038
20:00 - 21:00	5	17171	0.014	5	17171	0.021	5	17171	0.035
21:00 - 22:00	1	22270	0.027	1	22270	0.004	1	22270	0.031
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.457			0.444			0.901

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
PSVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	5	17171	0.000	5	17171	0.000	5	17171	0.000
06:00 - 07:00	5	17171	0.000	5	17171	0.000	5	17171	0.000
07:00 - 08:00	25	16382	0.000	25	16382	0.000	25	16382	0.000
08:00 - 09:00	25	16382	0.000	25	16382	0.000	25	16382	0.000
09:00 - 10:00	25	16382	0.000	25	16382	0.000	25	16382	0.000
10:00 - 11:00	25	16382	0.000	25	16382	0.000	25	16382	0.000
11:00 - 12:00	25	16382	0.000	25	16382	0.000	25	16382	0.000
12:00 - 13:00	25	16382	0.000	25	16382	0.000	25	16382	0.000
13:00 - 14:00	25	16382	0.000	25	16382	0.000	25	16382	0.000
14:00 - 15:00	25	16382	0.000	25	16382	0.000	25	16382	0.000
15:00 - 16:00	25	16382	0.000	25	16382	0.000	25	16382	0.000
16:00 - 17:00	25	16382	0.000	25	16382	0.000	25	16382	0.000
17:00 - 18:00	25	16382	0.001	25	16382	0.000	25	16382	0.001
18:00 - 19:00	24	17002	0.000	24	17002	0.000	24	17002	0.000
19:00 - 20:00	5	17171	0.000	5	17171	0.000	5	17171	0.000
20:00 - 21:00	5	17171	0.000	5	17171	0.000	5	17171	0.000
21:00 - 22:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.001			0.000			0.001

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	5	17171	0.000	5	17171	0.000	5	17171	0.000
06:00 - 07:00	5	17171	0.002	5	17171	0.001	5	17171	0.003
07:00 - 08:00	25	16382	0.004	25	16382	0.000	25	16382	0.004
08:00 - 09:00	25	16382	0.004	25	16382	0.000	25	16382	0.004
09:00 - 10:00	25	16382	0.001	25	16382	0.000	25	16382	0.001
10:00 - 11:00	25	16382	0.000	25	16382	0.001	25	16382	0.001
11:00 - 12:00	25	16382	0.001	25	16382	0.001	25	16382	0.002
12:00 - 13:00	25	16382	0.001	25	16382	0.001	25	16382	0.002
13:00 - 14:00	25	16382	0.007	25	16382	0.007	25	16382	0.014
14:00 - 15:00	25	16382	0.002	25	16382	0.006	25	16382	0.008
15:00 - 16:00	25	16382	0.003	25	16382	0.004	25	16382	0.007
16:00 - 17:00	25	16382	0.002	25	16382	0.005	25	16382	0.007
17:00 - 18:00	25	16382	0.002	25	16382	0.005	25	16382	0.007
18:00 - 19:00	24	17002	0.001	24	17002	0.003	24	17002	0.004
19:00 - 20:00	5	17171	0.000	5	17171	0.000	5	17171	0.000
20:00 - 21:00	5	17171	0.000	5	17171	0.000	5	17171	0.000
21:00 - 22:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.030			0.034			0.064

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

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

Calculation Reference: AUDIT-100319-201009-1002

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 14 - CAR SHOW ROOMS
Category : A - CAR SHOW ROOMS
TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON		
	BM	BROMLEY	1 days
	HO	HOUNSLOW	1 days
	HV	HAVERING	1 days
02	SOUTH EAST		
	EX	ESSEX	2 days
	KC	KENT	1 days
	SO	SLOUGH	1 days
	WS	WEST SUSSEX	1 days
03	SOUTH WEST		
	DV	DEVON	1 days
	WL	WILTSHIRE	2 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	2 days
05	EAST MIDLANDS		
	LE	LEICESTERSHIRE	2 days
	LN	LINCOLNSHIRE	3 days
	NR	NORTHAMPTONSHIRE	1 days
06	WEST MIDLANDS		
	WM	WEST MIDLANDS	3 days
	WO	WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	1 days
	SY	SOUTH YORKSHIRE	1 days
	WY	WEST YORKSHIRE	2 days
08	NORTH WEST		
	CH	CHESHIRE	1 days
	LC	LANCASHIRE	1 days
09	NORTH		
	CB	CUMBRIA	2 days
	TW	TYNE & WEAR	3 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
Actual Range: 45 to 9800 (units: sqm)
Range Selected by User: 45 to 9800 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/06 to 28/06/19

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

Selected survey days:

Monday	6 days
Tuesday	5 days
Wednesday	6 days
Thursday	5 days
Friday	12 days

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

Selected survey types:

Manual count	34 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 undertaking using machines.

Selected Locations:

Edge of Town Centre	3
Suburban Area (PPS6 Out of Centre)	15

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	13
Commercial Zone	5
Development Zone	2
Residential Zone	7
Retail Zone	2
Built-Up Zone	1
Village	1
High Street	1
No Sub Category	2

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

Secondary Filtering selection:

Use Class:

A1	34 days

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

Population within 500m Range:
All Surveys Included

Population within 1 mile:

1,001 to 5,000	2 days
5,001 to 10,000	6 days
10,001 to 15,000	5 days
15,001 to 20,000	4 days
20,001 to 25,000	6 days
25,001 to 50,000	10 days
50,001 to 100,000	1 days

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

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	3 days
50,001 to 75,000	2 days
75,001 to 100,000	4 days
100,001 to 125,000	1 days
125,001 to 250,000	13 days
250,001 to 500,000	6 days
500,001 or More	4 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	2 days
0.6 to 1.0	11 days
1.1 to 1.5	21 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	34 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	31 days
3 Moderate	2 days
4 Good	1 days

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

LIST OF SITES relevant to selection parameters

1 BM-14-A-01 AUDI BROMLEY
CROYDON ROAD
BECKENHAM

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 915 sqm
Survey date: FRIDAY *18/09/09* *Survey Type: MANUAL*

2 CA-14-A-03 FORD CAMBRIDGESHIRE
STUKELEY MEADOWS
HUNTINGDON

Suburban Area (PPS6 Out of Centre)
Commercial Zone
Total Gross floor area: 1608 sqm
Survey date: FRIDAY *21/10/11* *Survey Type: MANUAL*

3 CA-14-A-04 MERCEDES BENZ CAMBRIDGESHIRE
BARNWELL ROAD
CAMBRIDGE

Edge of Town
Commercial Zone
Total Gross floor area: 3400 sqm
Survey date: THURSDAY *11/10/12* *Survey Type: MANUAL*

4 CB-14-A-02 FORD/CITROEN CUMBRIA
HAWESWATER ROAD
PENRITH

Edge of Town
Industrial Zone
Total Gross floor area: 1900 sqm
Survey date: FRIDAY *28/11/08* *Survey Type: MANUAL*

5 CB-14-A-03 PEUGEOT CUMBRIA
GILWILLY ROAD
PENRITH
GILWILLY IND. ESTATE
Edge of Town
Industrial Zone
Total Gross floor area: 500 sqm
Survey date: WEDNESDAY *11/06/14* *Survey Type: MANUAL*

6 CH-14-A-01 EVANS HALSHAW FORD CHESHIRE
STADIUM WAY
CHESTER
SEALAND IND. ESTATE
Edge of Town
Industrial Zone
Total Gross floor area: 1050 sqm
Survey date: WEDNESDAY *12/11/14* *Survey Type: MANUAL*

7 DV-14-A-02 VAUXHALL DEVON
MARSH BARTON ROAD
EXETER

Suburban Area (PPS6 Out of Centre)
Retail Zone
Total Gross floor area: 6623 sqm
Survey date: THURSDAY *28/11/13* *Survey Type: MANUAL*

8 EX-14-A-01 FORD ESSEX
109 RAINSFORD ROAD
CHELMSFORD

Edge of Town Centre
Residential Zone
Total Gross floor area: 825 sqm
Survey date: TUESDAY *15/10/13* *Survey Type: MANUAL*

9 EX-14-A-02 KIA ESSEX
BRAINTREE ROAD
BRAINTREE

Edge of Town
Development Zone
Total Gross floor area: 1275 sqm
Survey date: FRIDAY *08/07/16* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

10 HO-14-A-01 FIAT HOUNSLOW
WHITTEN ROAD
HOUNSLOW

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 425 sqm
Survey date: MONDAY *10/12/12* *Survey Type: MANUAL*

11 HV-14-A-01 KIA HAVERING
HIGH ROAD
ROMFORD
CHADWELL HEATH
Suburban Area (PPS6 Out of Centre)
High Street
Total Gross floor area: 845 sqm
Survey date: MONDAY *06/10/14* *Survey Type: MANUAL*

12 KC-14-A-02 CAR SHOW ROOM KENT
UPPER ELMERS END ROAD
EDEN PARK

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 1290 sqm
Survey date: FRIDAY *09/03/07* *Survey Type: MANUAL*

13 LC-14-A-03 CAR SHOW ROOM LANCASHIRE
FYLDE ROAD
PRESTON
ASHTON-ON-RIBBLE
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Gross floor area: 2400 sqm
Survey date: MONDAY *16/11/09* *Survey Type: MANUAL*

14 LE-14-A-04 BMW & MINI LEICESTERSHIRE
MERIDIAN EAST
LEICESTER
BRAUNSTONE
Edge of Town
Commercial Zone
Total Gross floor area: 9800 sqm
Survey date: THURSDAY *25/06/09* *Survey Type: MANUAL*

15 LE-14-A-05 HONDA LEICESTERSHIRE
45-49 COVENTRY ROAD
LEICESTER
NARBOROUGH
Edge of Town
Industrial Zone
Total Gross floor area: 1300 sqm
Survey date: TUESDAY *04/11/14* *Survey Type: MANUAL*

16 LN-14-A-01 HONDA LINCOLNSHIRE
TOLLEMACHE ROAD
GRANTHAM

Edge of Town
Commercial Zone
Total Gross floor area: 1350 sqm
Survey date: MONDAY *15/11/10* *Survey Type: MANUAL*

17 LN-14-A-02 CAR SHOWROOM LINCOLNSHIRE
GT NORTHERN TERRACE
LINCOLN

Edge of Town Centre
Industrial Zone
Total Gross floor area: 45 sqm
Survey date: WEDNESDAY *04/10/17* *Survey Type: MANUAL*

18 LN-14-A-03 CAR SHOW ROOM LINCOLNSHIRE
SOUTH PARK AVENUE
LINCOLN
CANWICK HILL
Edge of Town
Residential Zone
Total Gross floor area: 143 sqm
Survey date: FRIDAY *28/06/19* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

19 NR-14-A-01 TOYOTA NORTHAMPTONSHIRE
FERRIS ROW
NORTHAMPTON
RIVERSIDE BUSINESS PARK
Edge of Town
Commercial Zone
Total Gross floor area: 1100 sqm
Survey date: TUESDAY 22/05/07 Survey Type: MANUAL

20 NY-14-A-04 LAND ROVER NORTH YORKSHIRE
HUTTON BANK
RIPON

Edge of Town
Industrial Zone
Total Gross floor area: 2160 sqm
Survey date: MONDAY 23/09/13 Survey Type: MANUAL

21 SO-14-A-01 JAGUAR LAND ROVER SLOUGH
LEIGH ROAD
SLOUGH
SLOUGH TRADING ESTATE
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 3772 sqm
Survey date: MONDAY 09/07/18 Survey Type: MANUAL

22 SY-14-A-01 HYUNDAI SOUTH YORKSHIRE
MIDDLE BANK
DONCASTER
HYDE PARK
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 500 sqm
Survey date: FRIDAY 21/12/12 Survey Type: MANUAL

23 TW-14-A-01 SAAB TYNE & WEAR
A191 WHITLEY ROAD
NEWCASTLE
BELLWAY IND. ESTATE
Edge of Town
Industrial Zone
Total Gross floor area: 1920 sqm
Survey date: FRIDAY 10/11/06 Survey Type: MANUAL

24 TW-14-A-02 RENAULT TYNE & WEAR
STONEYGATE CLOSE
GATESHEAD

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 2200 sqm
Survey date: FRIDAY 04/10/13 Survey Type: MANUAL

25 TW-14-A-03 CAR SHOW ROOM TYNE & WEAR
SOUTHWICK ROAD
SUNDERLAND
MONKWEARMOUTH
Suburban Area (PPS6 Out of Centre)
Development Zone
Total Gross floor area: 282 sqm
Survey date: WEDNESDAY 05/04/17 Survey Type: MANUAL

26 WL-14-A-01 FORD WILTSHIRE
CANAL ROAD
TROWBRIDGE

Edge of Town
Industrial Zone
Total Gross floor area: 3150 sqm
Survey date: FRIDAY 29/09/06 Survey Type: MANUAL

27 WL-14-A-02 MERCEDES BENZ WILTSHIRE
GREAT WESTERN WAY
SWINDON

Suburban Area (PPS6 Out of Centre)
Retail Zone
Total Gross floor area: 3250 sqm
Survey date: WEDNESDAY 21/09/16 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

28 WM-14-A-02 HONDA WEST MIDLANDS
LONDON ROAD
COVENTRY
WILLENHALL
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 951 sqm
Survey date: TUESDAY *14/02/06* *Survey Type: MANUAL*

29 WM-14-A-04 VOLKSWAGEN WEST MIDLANDS
LAWLEY MIDDLEWAY
BIRMINGHAM

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 5700 sqm
Survey date: THURSDAY *25/10/12* *Survey Type: MANUAL*

30 WM-14-A-05 EVANS HALSHAW WEST MIDLANDS
HAGLEY ROAD
STOURBRIDGE

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 2028 sqm
Survey date: WEDNESDAY *29/11/17* *Survey Type: MANUAL*

31 WO-14-A-01 HONDA WORCESTERSHIRE
BROMYARD ROAD
WORCESTER
HENWICK
Neighbourhood Centre (PPS6 Local Centre)
No Sub Category
Total Gross floor area: 655 sqm
Survey date: FRIDAY *23/05/14* *Survey Type: MANUAL*

32 WS-14-A-03 FORD WEST SUSSEX
BROUGHAM ROAD
WORTHING

Edge of Town
Residential Zone
Total Gross floor area: 1450 sqm
Survey date: FRIDAY *17/10/14* *Survey Type: MANUAL*

33 WY-14-A-03 VOLKSWAGEN WEST YORKSHIRE
ELLAND ROAD
LEEDS

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 3324 sqm
Survey date: TUESDAY *24/09/13* *Survey Type: MANUAL*

34 WY-14-A-04 PEUGEOT WEST YORKSHIRE
LEEDS ROAD
NEAR DEWSBURY
WOODKIRK
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Gross floor area: 1122 sqm
Survey date: THURSDAY *15/09/16* *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 14 - CAR SHOW ROOMS/A - CAR SHOW ROOMS
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	1	1350	0.000	1	1350	0.000	1	1350	0.000
07:00 - 08:00	23	2260	0.442	23	2260	0.073	23	2260	0.515
08:00 - 09:00	34	2037	0.894	34	2037	0.374	34	2037	1.268
09:00 - 10:00	34	2037	0.682	34	2037	0.563	34	2037	1.245
10:00 - 11:00	34	2037	0.647	34	2037	0.559	34	2037	1.206
11:00 - 12:00	34	2037	0.559	34	2037	0.579	34	2037	1.138
12:00 - 13:00	34	2037	0.599	34	2037	0.586	34	2037	1.185
13:00 - 14:00	34	2037	0.595	34	2037	0.562	34	2037	1.157
14:00 - 15:00	34	2037	0.582	34	2037	0.651	34	2037	1.233
15:00 - 16:00	34	2037	0.524	34	2037	0.595	34	2037	1.119
16:00 - 17:00	34	2037	0.478	34	2037	0.656	34	2037	1.134
17:00 - 18:00	34	2037	0.331	34	2037	0.647	34	2037	0.978
18:00 - 19:00	31	2152	0.079	31	2152	0.418	31	2152	0.497
19:00 - 20:00	9	2113	0.021	9	2113	0.242	9	2113	0.263
20:00 - 21:00	1	6623	0.045	1	6623	0.075	1	6623	0.120
21:00 - 22:00	1	6623	0.000	1	6623	0.211	1	6623	0.211
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			6.478			6.791			13.269

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.*

Parameter summary

Trip rate parameter range selected:	45 - 9800 (units: sqm)
Survey date date range:	01/01/06 - 28/06/19
Number of weekdays (Monday-Friday):	34
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 14 - CAR SHOW ROOMS/A - CAR SHOW ROOMS
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	1	1350	0.000	1	1350	0.000	1	1350	0.000
07:00 - 08:00	23	2260	0.015	23	2260	0.010	23	2260	0.025
08:00 - 09:00	34	2037	0.010	34	2037	0.014	34	2037	0.024
09:00 - 10:00	34	2037	0.017	34	2037	0.016	34	2037	0.033
10:00 - 11:00	34	2037	0.012	34	2037	0.013	34	2037	0.025
11:00 - 12:00	34	2037	0.009	34	2037	0.010	34	2037	0.019
12:00 - 13:00	34	2037	0.006	34	2037	0.010	34	2037	0.016
13:00 - 14:00	34	2037	0.020	34	2037	0.016	34	2037	0.036
14:00 - 15:00	34	2037	0.012	34	2037	0.014	34	2037	0.026
15:00 - 16:00	34	2037	0.004	34	2037	0.004	34	2037	0.008
16:00 - 17:00	34	2037	0.006	34	2037	0.001	34	2037	0.007
17:00 - 18:00	34	2037	0.003	34	2037	0.006	34	2037	0.009
18:00 - 19:00	31	2152	0.001	31	2152	0.003	31	2152	0.004
19:00 - 20:00	9	2113	0.000	9	2113	0.000	9	2113	0.000
20:00 - 21:00	1	6623	0.000	1	6623	0.000	1	6623	0.000
21:00 - 22:00	1	6623	0.000	1	6623	0.000	1	6623	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.115			0.117			0.232

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

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

TRIP RATE for Land Use 14 - CAR SHOW ROOMS/A - CAR SHOW ROOMS
PSVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	1	1350	0.000	1	1350	0.000	1	1350	0.000
07:00 - 08:00	23	2260	0.000	23	2260	0.000	23	2260	0.000
08:00 - 09:00	34	2037	0.001	34	2037	0.000	34	2037	0.001
09:00 - 10:00	34	2037	0.003	34	2037	0.001	34	2037	0.004
10:00 - 11:00	34	2037	0.000	34	2037	0.000	34	2037	0.000
11:00 - 12:00	34	2037	0.000	34	2037	0.000	34	2037	0.000
12:00 - 13:00	34	2037	0.000	34	2037	0.000	34	2037	0.000
13:00 - 14:00	34	2037	0.000	34	2037	0.000	34	2037	0.000
14:00 - 15:00	34	2037	0.000	34	2037	0.001	34	2037	0.001
15:00 - 16:00	34	2037	0.000	34	2037	0.001	34	2037	0.001
16:00 - 17:00	34	2037	0.001	34	2037	0.004	34	2037	0.005
17:00 - 18:00	34	2037	0.000	34	2037	0.000	34	2037	0.000
18:00 - 19:00	31	2152	0.000	31	2152	0.000	31	2152	0.000
19:00 - 20:00	9	2113	0.000	9	2113	0.000	9	2113	0.000
20:00 - 21:00	1	6623	0.000	1	6623	0.000	1	6623	0.000
21:00 - 22:00	1	6623	0.000	1	6623	0.000	1	6623	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.005			0.007			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.*

TRIP RATE for Land Use 14 - CAR SHOW ROOMS/A - CAR SHOW ROOMS
CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	1	1350	0.000	1	1350	0.000	1	1350	0.000
07:00 - 08:00	23	2260	0.021	23	2260	0.002	23	2260	0.023
08:00 - 09:00	34	2037	0.017	34	2037	0.004	34	2037	0.021
09:00 - 10:00	34	2037	0.003	34	2037	0.004	34	2037	0.007
10:00 - 11:00	34	2037	0.000	34	2037	0.000	34	2037	0.000
11:00 - 12:00	34	2037	0.003	34	2037	0.001	34	2037	0.004
12:00 - 13:00	34	2037	0.001	34	2037	0.003	34	2037	0.004
13:00 - 14:00	34	2037	0.000	34	2037	0.000	34	2037	0.000
14:00 - 15:00	34	2037	0.000	34	2037	0.000	34	2037	0.000
15:00 - 16:00	34	2037	0.000	34	2037	0.000	34	2037	0.000
16:00 - 17:00	34	2037	0.000	34	2037	0.007	34	2037	0.007
17:00 - 18:00	34	2037	0.000	34	2037	0.014	34	2037	0.014
18:00 - 19:00	31	2152	0.000	31	2152	0.009	31	2152	0.009
19:00 - 20:00	9	2113	0.000	9	2113	0.005	9	2113	0.005
20:00 - 21:00	1	6623	0.000	1	6623	0.000	1	6623	0.000
21:00 - 22:00	1	6623	0.000	1	6623	0.000	1	6623	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.045			0.049			0.094

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-100319-201009-1003

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : D - INDUSTRIAL ESTATE
TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON		
	EG	EALING	1 days
	HD	HILLINGDON	2 days
	HO	HOUNSLOW	1 days
	HV	HAVERING	1 days
02	SOUTH EAST		
	ES	EAST SUSSEX	2 days
	EX	ESSEX	5 days
	KC	KENT	1 days
	WG	WOKINGHAM	1 days
03	SOUTH WEST		
	BR	BRISTOL CITY	2 days
	CW	CORNWALL	2 days
	DC	DORSET	1 days
	DV	DEVON	2 days
	WL	WILTSHIRE	1 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	3 days
	NF	NORFOLK	1 days
05	EAST MIDLANDS		
	DS	DERBYSHIRE	1 days
	LN	LINCOLNSHIRE	1 days
	NR	NORTHAMPTONSHIRE	1 days
	NT	NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS		
	HE	HEREFORDSHIRE	1 days
	WK	WARWICKSHIRE	1 days
	WM	WEST MIDLANDS	2 days
	WO	WORCESTERSHIRE	3 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	WY	WEST YORKSHIRE	4 days
08	NORTH WEST		
	CH	CHESHIRE	1 days
	GM	GREATER MANCHESTER	1 days
	LC	LANCASHIRE	3 days
09	NORTH		
	CB	CUMBRIA	1 days
	NB	NORTHUMBERLAND	1 days
	TW	TYNE & WEAR	3 days

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

Primary Filtering selection:

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

Parameter:	Gross floor area
Actual Range:	1138 to 84575 (units: sqm)
Range Selected by User:	708 to 167416 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/06 to 27/09/19

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

Selected survey days:

Monday	10 days
Tuesday	13 days
Wednesday	5 days
Thursday	9 days
Friday	14 days

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

Selected survey types:

Manual count	51 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 undertaking using machines.

Selected Locations:

Edge of Town Centre	2
Suburban Area (PPS6 Out of Centre)	17
Edge of Town	28
Neighbourhood Centre (PPS6 Local Centre)	2
Free Standing (PPS6 Out of Town)	2

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

Selected Location Sub Categories:

Industrial Zone	25
Commercial Zone	1
Development Zone	2
Residential Zone	11
Village	2
Out of Town	3
No Sub Category	7

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	18 days
B2	27 days
B8	6 days

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

Filter by Use Class Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,000 or Less	4 days
1,001 to 5,000	3 days
5,001 to 10,000	7 days
10,001 to 15,000	10 days
15,001 to 20,000	6 days
20,001 to 25,000	7 days
25,001 to 50,000	11 days
50,001 to 100,000	3 days

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

Population within 5 miles:

5,001 to 25,000	2 days
25,001 to 50,000	5 days
50,001 to 75,000	5 days
75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	20 days
250,001 to 500,000	12 days
500,001 or More	4 days

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

Car ownership within 5 miles:

0.6 to 1.0	21 days
1.1 to 1.5	26 days
1.6 to 2.0	4 days

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

Travel Plan:

Yes	1 days
No	50 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	46 days
1b Very poor	2 days
2 Poor	3 days

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

LIST OF SITES relevant to selection parameters

1 BR-02-D-04 INDUSTRIAL ESTATE BRISTOL CITY
CROFTS END ROAD
BRISTOL
SPEEDWELL
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 18018 sqm
Survey date: FRIDAY *29/11/13* *Survey Type: MANUAL*

2 BR-02-D-05 INDUSTRIAL ESTATE BRISTOL CITY
NOVERS HILL
BRISTOL
BEDMINSTER
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 18128 sqm
Survey date: FRIDAY *29/11/13* *Survey Type: MANUAL*

3 CA-02-D-02 IND. ESTATE CAMBRIDGESHIRE
COLDHAM'S ROAD
CAMBRIDGE
COLDHAM'S COMMON
Edge of Town
Industrial Zone
Total Gross floor area: 2063 sqm
Survey date: MONDAY *19/10/09* *Survey Type: MANUAL*

4 CA-02-D-03 IND. ESTATE CAMBRIDGESHIRE
SAVILLE ROAD
PETERBOROUGH
WESTWOOD
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Gross floor area: 4425 sqm
Survey date: THURSDAY *22/10/09* *Survey Type: MANUAL*

5 CA-02-D-04 INDUSTRIAL ESTATE CAMBRIDGESHIRE
LINCOLN ROAD
PETERBOROUGH

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Gross floor area: 4133 sqm
Survey date: TUESDAY *02/12/14* *Survey Type: MANUAL*

6 CB-02-D-04 INDUSTRIAL ESTATE CUMBRIA
CARLISLE ROAD
BRAMPTON

Edge of Town
No Sub Category
Total Gross floor area: 17708 sqm
Survey date: WEDNESDAY *16/12/09* *Survey Type: MANUAL*

7 CH-02-D-02 INDUSTRIAL EST. CHESHIRE
MANCHESTER ROAD
NORTHWICH
WINCHAM
Edge of Town
Industrial Zone
Total Gross floor area: 22000 sqm
Survey date: FRIDAY *15/06/07* *Survey Type: MANUAL*

8 CW-02-D-02 INDUSTRIAL ESTATE CORNWALL
DRUIDS ROAD
CAMBORNE

Edge of Town
Industrial Zone
Total Gross floor area: 6515 sqm
Survey date: FRIDAY *21/09/07* *Survey Type: MANUAL*

9 CW-02-D-03 IND. ESTATE CORNWALL
LONG ROCK ROAD
NEAR PENZANCE
LONG ROCK
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Gross floor area: 36500 sqm
Survey date: MONDAY *03/10/11* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

10 DC-02-D-20 INDUSTRIAL ESTATE DORSET
OLD BARN FARM ROAD
NEAR BOURNEMOUTH
THREE LEGGED CROSS
Free Standing (PPS6 Out of Town)
Out of Town
Total Gross floor area: 70000 sqm
Survey date: MONDAY 24/03/14 Survey Type: MANUAL

11 DS-02-D-02 INDUSTRIAL ESTATE DERBYSHIRE
SHAFTESBURY STREET
DERBY
ROSE HILL
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Gross floor area: 5686 sqm
Survey date: WEDNESDAY 25/09/19 Survey Type: MANUAL

12 DV-02-D-06 INDUSTRIAL ESTATE DEVON
ST MODWEN ROAD
PLYMOUTH

Edge of Town
Industrial Zone
Total Gross floor area: 1775 sqm
Survey date: TUESDAY 17/07/12 Survey Type: MANUAL

13 DV-02-D-07 INDUSTRIAL ESTATE DEVON
BITTERN ROAD
EXETER
SOWTON IND. ESTATE
Edge of Town
Industrial Zone
Total Gross floor area: 3600 sqm
Survey date: MONDAY 03/07/17 Survey Type: MANUAL

14 EG-02-D-02 INDUSTRIAL ESTATE EALING
BELVUE ROAD
NORTHOLT

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 3120 sqm
Survey date: WEDNESDAY 05/12/12 Survey Type: MANUAL

15 ES-02-D-06 INDUSTRIAL ESTATE EAST SUSSEX
COURTLANDS ROAD
EASTBOURNE

Edge of Town
Residential Zone
Total Gross floor area: 7525 sqm
Survey date: MONDAY 21/10/13 Survey Type: MANUAL

16 ES-02-D-07 INDUSTRIAL ESTATE EAST SUSSEX
HUGHES ROAD
BRIGHTON

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 6625 sqm
Survey date: THURSDAY 16/10/14 Survey Type: MANUAL

17 EX-02-D-01 INDUSTRIAL ESTATE ESSEX
OAKWOOD HILL
LOUGHTON

Edge of Town
Industrial Zone
Total Gross floor area: 27687 sqm
Survey date: THURSDAY 22/11/07 Survey Type: MANUAL

18 EX-02-D-02 INDUSTRIAL ESTATE ESSEX
CHELMSFORD ROAD
DUNMOW

Edge of Town Centre
Residential Zone
Total Gross floor area: 9300 sqm
Survey date: FRIDAY 08/07/16 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

19 EX-02-D-03 INDUSTRIAL ESTATE ESSEX
WYNCOLLS ROAD
COLCHESTER
SEVERALLS INDUSTRIAL PK
Edge of Town
Industrial Zone
Total Gross floor area: 4876 sqm
Survey date: FRIDAY *18/05/18* *Survey Type: MANUAL*

20 EX-02-D-04 INDUSTRIAL ESTATE ESSEX
PASTURE ROAD
WITHAM

Edge of Town
Industrial Zone
Total Gross floor area: 37130 sqm
Survey date: THURSDAY *10/05/18* *Survey Type: MANUAL*

21 EX-02-D-05 INDUSTRIAL ESTATE ESSEX
HECKWORTH CLOSE
COLCHESTER
SEVERALLS INDUSTRIAL PK
Edge of Town
Industrial Zone
Total Gross floor area: 7280 sqm
Survey date: FRIDAY *18/05/18* *Survey Type: MANUAL*

22 GM-02-D-07 BUSINESS PARK GREATER MANCHESTER
VULCAN STREET
OLDHAM

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 4400 sqm
Survey date: THURSDAY *22/10/15* *Survey Type: MANUAL*

23 HD-02-D-02 INDUSTRIAL ESTATE HILLINGDON
BRADFIELD ROAD
RUISLIP
SOUTH RUISLIP
Edge of Town
Industrial Zone
Total Gross floor area: 13850 sqm
Survey date: THURSDAY *25/06/15* *Survey Type: MANUAL*

24 HD-02-D-03 INDUSTRIAL ESTATE HILLINGDON
BRADFIELD ROAD
RUISLIP
SOUTH RUISLIP
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 8310 sqm
Survey date: MONDAY *10/06/19* *Survey Type: MANUAL*

25 HE-02-D-02 BUSINESS PARK HEREFORDSHIRE
BURCOTT ROAD
HEREFORD

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 5214 sqm
Survey date: TUESDAY *22/10/13* *Survey Type: MANUAL*

26 HO-02-D-01 INDUSTRIAL ESTATE HOUNSLOW
HAMPTON ROAD WEST
FELTHAM
HANWORTH
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 7400 sqm
Survey date: THURSDAY *25/06/15* *Survey Type: MANUAL*

27 HV-02-D-01 INDUSTRIAL ESTATE HAVERING
CHURCH ROAD
ROMFORD
HAROLD WOOD
Edge of Town
Residential Zone
Total Gross floor area: 13000 sqm
Survey date: TUESDAY *07/10/14* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

28 KC-02-D-02 INDUSTRIAL ESTATE KENT
SOUTHWELL ROAD
DEAL

Edge of Town
Residential Zone
Total Gross floor area: 10715 sqm
Survey date: WEDNESDAY *28/11/12* *Survey Type: MANUAL*

29 LC-02-D-05 INDUSTRIAL ESTATE LANCASHIRE
APPLEBY STREET
BLACKBURN

Edge of Town Centre
Industrial Zone
Total Gross floor area: 7020 sqm
Survey date: TUESDAY *04/06/13* *Survey Type: MANUAL*

30 LC-02-D-07 INDUSTRIAL ESTATE LANCASHIRE
CHAIN CAUL WAY
PRESTON
ASHTON-ON-RIBBLE
Edge of Town
Industrial Zone
Total Gross floor area: 4700 sqm
Survey date: FRIDAY *17/11/17* *Survey Type: MANUAL*

31 LC-02-D-08 INDUSTRIAL ESTATE LANCASHIRE
NOOK LANE
BAMBER BRIDGE

Edge of Town
Industrial Zone
Total Gross floor area: 4000 sqm
Survey date: TUESDAY *06/11/18* *Survey Type: MANUAL*

32 LN-02-D-02 INDUSTRIAL ESTATE LINCOLNSHIRE
STATION ROAD
NEAR BOSTON
SWINESHEAD
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Gross floor area: 4600 sqm
Survey date: TUESDAY *11/12/12* *Survey Type: MANUAL*

33 NB-02-D-02 INDUSTRIAL ESTATE NORTHUMBERLAND
OLDSTONE ROAD
NEAR CRAMLINGTON
EAST CRAMLINGTON
Free Standing (PPS6 Out of Town)
Out of Town
Total Gross floor area: 5500 sqm
Survey date: FRIDAY *16/11/12* *Survey Type: MANUAL*

34 NF-02-D-03 INDUSTRIAL ESTATE NORFOLK
BIDEWELL CLOSE
NORWICH

Edge of Town
Residential Zone
Total Gross floor area: 6000 sqm
Survey date: MONDAY *08/10/12* *Survey Type: MANUAL*

35 NR-02-D-01 INDUSTRIAL ESTATE NORTHAMPTONSHIRE
ROBINSON WAY
KETTERING

Edge of Town
Industrial Zone
Total Gross floor area: 12900 sqm
Survey date: THURSDAY *23/10/14* *Survey Type: MANUAL*

36 NT-02-D-01 INDUSTRIAL ESTATE NOTTINGHAMSHIRE
B6028 STONEYFORD ROAD
SUTTON-IN-ASHFIELD
STANTON HILL
Edge of Town
No Sub Category
Total Gross floor area: 26400 sqm
Survey date: FRIDAY *30/06/06* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

37 TW-02-D-06 INDUSTRIAL ESTATE TYNE & WEAR
NORHAM ROAD
NORTH SHIELDS
WEST CHIRTON
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 23000 sqm
Survey date: THURSDAY 19/10/06 Survey Type: MANUAL

38 TW-02-D-07 INDUSTRIAL ESTATE TYNE & WEAR
SWALWELL BANK
GATESHEAD
WHICKHAM
Edge of Town
Residential Zone
Total Gross floor area: 6800 sqm
Survey date: FRIDAY 04/10/13 Survey Type: MANUAL

39 TW-02-D-08 INDUSTRIAL ESTATE TYNE & WEAR
NORTH HYLTON ROAD
SUNDERLAND
SOUTHWICK
Suburban Area (PPS6 Out of Centre)
Development Zone
Total Gross floor area: 8310 sqm
Survey date: TUESDAY 04/04/17 Survey Type: MANUAL

40 WG-02-D-01 INDUSTRIAL ESTATE WOKINGHAM
FISHPONDS ROAD
WOKINGHAM

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 3800 sqm
Survey date: TUESDAY 20/11/12 Survey Type: MANUAL

41 WK-02-D-04 INDUSTRIAL ESTATE WARWICKSHIRE
ABELES WAY
ATHERSTONE

Edge of Town
No Sub Category
Total Gross floor area: 17500 sqm
Survey date: FRIDAY 27/09/19 Survey Type: MANUAL

42 WL-02-D-02 INDUSTRIAL ESTATE WILTSHIRE
HEADLANDS GROVE
SWINDON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 10000 sqm
Survey date: TUESDAY 20/09/16 Survey Type: MANUAL

43 WM-02-D-02 INDUSTRIAL ESTATE WEST MIDLANDS
DUNLOP WAY
BIRMINGHAM

Edge of Town
Residential Zone
Total Gross floor area: 23480 sqm
Survey date: WEDNESDAY 07/11/12 Survey Type: MANUAL

44 WM-02-D-03 INDUSTRIAL ESTATE WEST MIDLANDS
JUNCTION ROAD
STOURBRIDGE
AUDNAM
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 1138 sqm
Survey date: TUESDAY 28/11/17 Survey Type: MANUAL

45 WO-02-D-01 INDUSTRIAL ESTATE WORCESTERSHIRE
SANDY LANE
STOURPORT-ON-SEVERN

Edge of Town
Commercial Zone
Total Gross floor area: 2758 sqm
Survey date: FRIDAY 23/05/14 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

46 WO-02-D-02 INDUSTRIAL ESTATE WORCESTERSHIRE
WEIR LANE
WORCESTER

Edge of Town
Residential Zone
Total Gross floor area: 9500 sqm
Survey date: MONDAY *14/11/16* *Survey Type: MANUAL*

47 WO-02-D-03 INDUSTRIAL ESTATE WORCESTERSHIRE
MILLENNIUM WAY
EVESHAM

Edge of Town
Out of Town
Total Gross floor area: 84575 sqm
Survey date: TUESDAY *26/06/18* *Survey Type: MANUAL*

48 WY-02-D-02 INDUSTRIAL EST. WEST YORKSHIRE
A629 WAKEFIELD ROAD
HUDDERSFIELD
TANDEM
Edge of Town
No Sub Category
Total Gross floor area: 20824 sqm
Survey date: MONDAY *11/09/06* *Survey Type: MANUAL*

49 WY-02-D-03 INDUSTRIAL ESTATE WEST YORKSHIRE
ARMLEY ROAD
LEEDS

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 24980 sqm
Survey date: FRIDAY *20/09/13* *Survey Type: MANUAL*

50 WY-02-D-05 INDUSTRIAL ESTATE WEST YORKSHIRE
CARR WOOD ROAD
CASTLEFORD

Edge of Town
Development Zone
Total Gross floor area: 1776 sqm
Survey date: MONDAY *22/05/17* *Survey Type: MANUAL*

51 WY-02-D-06 INDUSTRIAL ESTATE (PART) WEST YORKSHIRE
PIONEER WAY
CASTLEFORD

Edge of Town
Industrial Zone
Total Gross floor area: 4328 sqm
Survey date: TUESDAY *23/05/17* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	4	9724	0.051	4	9724	0.005	4	9724	0.056
06:00 - 07:00	4	9724	0.237	4	9724	0.085	4	9724	0.322
07:00 - 08:00	51	13547	0.399	51	13547	0.123	51	13547	0.522
08:00 - 09:00	51	13547	0.525	51	13547	0.210	51	13547	0.735
09:00 - 10:00	51	13547	0.379	51	13547	0.256	51	13547	0.635
10:00 - 11:00	51	13547	0.310	51	13547	0.271	51	13547	0.581
11:00 - 12:00	51	13547	0.312	51	13547	0.307	51	13547	0.619
12:00 - 13:00	51	13547	0.305	51	13547	0.343	51	13547	0.648
13:00 - 14:00	51	13547	0.328	51	13547	0.317	51	13547	0.645
14:00 - 15:00	51	13547	0.280	51	13547	0.318	51	13547	0.598
15:00 - 16:00	51	13547	0.247	51	13547	0.338	51	13547	0.585
16:00 - 17:00	51	13547	0.232	51	13547	0.414	51	13547	0.646
17:00 - 18:00	51	13547	0.121	51	13547	0.475	51	13547	0.596
18:00 - 19:00	51	13547	0.064	51	13547	0.174	51	13547	0.238
19:00 - 20:00	4	9724	0.093	4	9724	0.123	4	9724	0.216
20:00 - 21:00	3	10499	0.016	3	10499	0.038	3	10499	0.054
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.899			3.797			7.696

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.*

Parameter summary

Trip rate parameter range selected:	1138 - 84575 (units: sqm)
Survey date date range:	01/01/06 - 27/09/19
Number of weekdays (Monday-Friday):	51
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	2
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/D - INDUSTRIAL ESTATE
TAXIS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	4	9724	0.000	4	9724	0.000	4	9724	0.000
06:00 - 07:00	4	9724	0.000	4	9724	0.000	4	9724	0.000
07:00 - 08:00	51	13547	0.001	51	13547	0.000	51	13547	0.001
08:00 - 09:00	51	13547	0.002	51	13547	0.002	51	13547	0.004
09:00 - 10:00	51	13547	0.002	51	13547	0.002	51	13547	0.004
10:00 - 11:00	51	13547	0.001	51	13547	0.001	51	13547	0.002
11:00 - 12:00	51	13547	0.001	51	13547	0.001	51	13547	0.002
12:00 - 13:00	51	13547	0.000	51	13547	0.000	51	13547	0.000
13:00 - 14:00	51	13547	0.002	51	13547	0.001	51	13547	0.003
14:00 - 15:00	51	13547	0.001	51	13547	0.001	51	13547	0.002
15:00 - 16:00	51	13547	0.001	51	13547	0.001	51	13547	0.002
16:00 - 17:00	51	13547	0.001	51	13547	0.001	51	13547	0.002
17:00 - 18:00	51	13547	0.001	51	13547	0.001	51	13547	0.002
18:00 - 19:00	51	13547	0.001	51	13547	0.001	51	13547	0.002
19:00 - 20:00	4	9724	0.003	4	9724	0.003	4	9724	0.006
20:00 - 21:00	3	10499	0.000	3	10499	0.000	3	10499	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.017			0.015			0.032

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	4	9724	0.005	4	9724	0.000	4	9724	0.005
06:00 - 07:00	4	9724	0.015	4	9724	0.008	4	9724	0.023
07:00 - 08:00	51	13547	0.016	51	13547	0.019	51	13547	0.035
08:00 - 09:00	51	13547	0.023	51	13547	0.024	51	13547	0.047
09:00 - 10:00	51	13547	0.031	51	13547	0.030	51	13547	0.061
10:00 - 11:00	51	13547	0.028	51	13547	0.027	51	13547	0.055
11:00 - 12:00	51	13547	0.028	51	13547	0.027	51	13547	0.055
12:00 - 13:00	51	13547	0.030	51	13547	0.027	51	13547	0.057
13:00 - 14:00	51	13547	0.028	51	13547	0.029	51	13547	0.057
14:00 - 15:00	51	13547	0.026	51	13547	0.024	51	13547	0.050
15:00 - 16:00	51	13547	0.027	51	13547	0.028	51	13547	0.055
16:00 - 17:00	51	13547	0.020	51	13547	0.020	51	13547	0.040
17:00 - 18:00	51	13547	0.011	51	13547	0.011	51	13547	0.022
18:00 - 19:00	51	13547	0.004	51	13547	0.006	51	13547	0.010
19:00 - 20:00	4	9724	0.005	4	9724	0.005	4	9724	0.010
20:00 - 21:00	3	10499	0.006	3	10499	0.000	3	10499	0.006
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.303			0.285			0.588

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
PSVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	4	9724	0.000	4	9724	0.000	4	9724	0.000
06:00 - 07:00	4	9724	0.000	4	9724	0.000	4	9724	0.000
07:00 - 08:00	51	13547	0.000	51	13547	0.001	51	13547	0.001
08:00 - 09:00	51	13547	0.001	51	13547	0.001	51	13547	0.002
09:00 - 10:00	51	13547	0.002	51	13547	0.001	51	13547	0.003
10:00 - 11:00	51	13547	0.001	51	13547	0.001	51	13547	0.002
11:00 - 12:00	51	13547	0.001	51	13547	0.001	51	13547	0.002
12:00 - 13:00	51	13547	0.000	51	13547	0.000	51	13547	0.000
13:00 - 14:00	51	13547	0.000	51	13547	0.000	51	13547	0.000
14:00 - 15:00	51	13547	0.001	51	13547	0.001	51	13547	0.002
15:00 - 16:00	51	13547	0.000	51	13547	0.001	51	13547	0.001
16:00 - 17:00	51	13547	0.001	51	13547	0.000	51	13547	0.001
17:00 - 18:00	51	13547	0.001	51	13547	0.000	51	13547	0.001
18:00 - 19:00	51	13547	0.001	51	13547	0.000	51	13547	0.001
19:00 - 20:00	4	9724	0.000	4	9724	0.000	4	9724	0.000
20:00 - 21:00	3	10499	0.000	3	10499	0.000	3	10499	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.009			0.007			0.016

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	4	9724	0.010	4	9724	0.003	4	9724	0.013
06:00 - 07:00	4	9724	0.005	4	9724	0.000	4	9724	0.005
07:00 - 08:00	51	13547	0.011	51	13547	0.001	51	13547	0.012
08:00 - 09:00	51	13547	0.007	51	13547	0.002	51	13547	0.009
09:00 - 10:00	51	13547	0.003	51	13547	0.001	51	13547	0.004
10:00 - 11:00	51	13547	0.003	51	13547	0.003	51	13547	0.006
11:00 - 12:00	51	13547	0.002	51	13547	0.001	51	13547	0.003
12:00 - 13:00	51	13547	0.003	51	13547	0.002	51	13547	0.005
13:00 - 14:00	51	13547	0.003	51	13547	0.002	51	13547	0.005
14:00 - 15:00	51	13547	0.002	51	13547	0.003	51	13547	0.005
15:00 - 16:00	51	13547	0.003	51	13547	0.007	51	13547	0.010
16:00 - 17:00	51	13547	0.002	51	13547	0.007	51	13547	0.009
17:00 - 18:00	51	13547	0.004	51	13547	0.012	51	13547	0.016
18:00 - 19:00	51	13547	0.002	51	13547	0.003	51	13547	0.005
19:00 - 20:00	4	9724	0.000	4	9724	0.005	4	9724	0.005
20:00 - 21:00	3	10499	0.000	3	10499	0.000	3	10499	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.060			0.052			0.112

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

VOLTERRA CONSTRUCTION WORKER DISTRIBUTION NOTE

Volterra

London Resort Construction Worker Distribution Note

London Resort Company Holdings

A note by Volterra Partners, December 2020

Volterra

1 Introduction

1.1 This note describes the method used to estimate the trip distribution of construction staff employed at the proposed London Resort. The analysis makes use of the journey to work data available by small geographic area (MSOA) from the 2011 Census and commuting data by distance band specific to the construction industry[1]. The analysis also makes use of an "Immediate Impact Area" (IIA) around the site which is defined as the three MSOAs surrounding the London Resort site. This more local area is defined to reflect the local accessibility of the site.

1.2 The construction worker trip data by distance band is distributed between the MSOAs that lie within each distance band. This distribution is adjusted to account for improvements in accessibility from north of the river due to the shuttle service.

1.3 The commute split between car and public transport trips for each origin and destination MSOA is unavailable for specific industries so data is gathered from the census for all industries.

1.4 The following sections describe the approach used to distribute trips made to London Resort by construction workers. This analysis is intended as a starting point of what might be reasonable given existing commuting patterns (including for construction workers) and improvements to accessibility from north of the river. The assumptions will need to be reviewed when the travel options for construction workers are confirmed.

[1] ONS, 2020. CT1109 COVID-19_2011 Census [available at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/adhocs/11742ct1109covid192011census]

2 Modelling approach

Distance travelled to work data

2.1 Data is available[2] at a local authority level for the number of commutes made in a variety of distance categories from the local authority for workers in each 2-digit industry. For example, Table 1 shows the number of commutes made to Dartford within each distance category for workers in the construction industry.

Table 1: Commute trips made to Dartford by distance in the construction industry

Distance band	Number of trips	% trips (construction)	% trips (all industry)
Less than 2 km	236	5%	14%
2 km to less than 5 km	471	10%	17%
5 km to less than 10 km	811	17%	26%
10 km to less than 20 km	1,037	21%	21%
20 km to less than 30 km	771	16%	13%
30 km to less than 40 km	360	7%	4%
40 km to less than 60 km	354	7%	3%
60 km and over	844	17%	4%

Source: ONS

2.2 Table 1 shows that construction workers tend to have a longer commute to work than the typical worker: 17% of construction workers commuting to Dartford commute from more than 60km away, compared with 4% for the average worker.

2.3 This trip distribution is used to allocate trips made by construction workers to London Resort directly or via Ebbsfleet train station. For a more detailed distribution, the Middle Layer Super Output Areas[3] (MSOAs) within each distance band are collected, and trips are distributed between these MSOAs based on the number of construction workers residing in each MSOA.[4]

2.4 Figure 1 illustrates the MSOAs within a 5-10km distance band of the site. The number of construction workers residing in the part of each MSOA that lies within the distance band is used to disaggregate trips between MSOAs. The 17% of trips (see Table 2) that lies within the 5km – 10km distance band, for example, are distributed between MSOAs by the proportion of construction workers in the MSOA contained in that band.

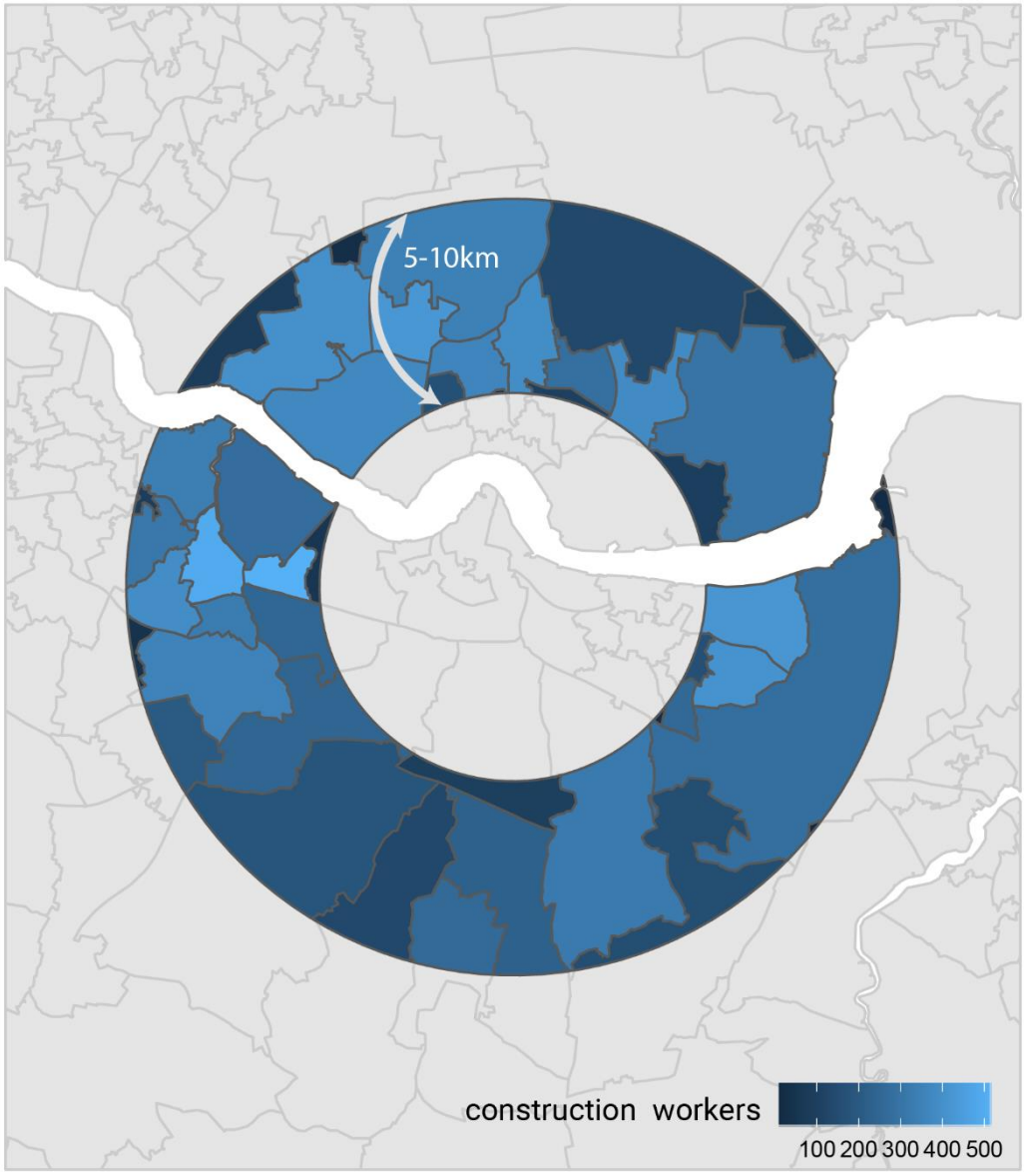
2.5 Since different parts of an MSOA can lie within two different distance bands, the trips are aggregated to give one value for each MSOA.

[2] ONS, 2020. CT1109 COVID-19_2011 Census [available at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/adhocs/11742ct1109covid192011census]

[3] Middle Super Output areas are small areas designed to improve the reporting of small area statistics in England and Wales. They are fixed boundaries drawn such that the minimum population in any MSOA is 5,000 with a mean of 7,200 people.

[4] Estimates of the number of construction workers resident in each MSOA come from the 2011 census.

Figure 1: MSOA distribution within 5-10km of London Resort



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2.6 As Figure 1 illustrates, areas to the north of the river are assumed to be in the same distance band as areas to the south since distance is taken 'as the crow flies'. In reality it is likely that the areas to the north of the would have fewer commute trips given that the journey via the road or rail network is less direct (and would require a longer commute). Adjustments are made to the construction worker distribution to account for this later.

Modal distribution

2.7 The commute split between car and public transport trips for each origin and destination MSOA is unavailable for specific industries. Instead, the modal split of trips

is from the 2011 Census *Location of usual residence and place of work by method of travel to work (MSOA level*) dataset. This gives the number of trips between each origin and destination by the mode of transport used, for workers across all industries - not specific to construction.

2.8 Construction workers tend to be less likely to use public transport than the average worker - 10% of construction workers in Kent commuted using public transport compared with the all-industry average of 24%. It is considered, however, that the location of the site near Ebbsfleet International, and the encouraged use of public transport modes will lead to a higher public transport share. Based on the all industries average, it is estimated that 21% of commute trips to London Resort would be made by public transport.[5] This is expected to be a minimum as the use of public transport will be encouraged for construction workers.

Adjusting for new routes to the site

2.9 At present, access to the London Resort site is limited. No routes exist to easily access from the north of the river. It is planned that there will be a ferry departing from Tilbury to take staff from the north side of the river in the local authority of Thurrock.

2.10 The census commuting data (2011) does not account for the use of these new routes, so adjustments are made to predict how many more trips might be made from areas that would benefit from the ferries.

2.11 The travel time is taken from each MSOA to each destination (London Resort, the ferry at Tilbury, and a potential second ferry at Grays as a proxy for better accessibility from the north of the river). An assumed 10 minute ferry time to London Resort is added to the travel time to each of the ferry terminals. For routes that would become quicker going via the ferry at Tilbury, a predictive model is used to estimate how many trips would be made based on this new travel time.

2.12 As mentioned in 2.6, commute trips are assigned to MSOAs on the basis of 'crow-flies' distance. For those MSOAs north of the river, which face a longer commute than the straight line distance suggests, this means that too many commute trips will have been allocated. The same predictive model is used to adjust down the commutes made from these MSOAs based on the travel time. Examples of how the number of trips has been adjusted are shown in in Figure 6 and 7 in the appendix.

[5] While Kent construction workers have a particularly low public transport mode share, Dartford local authority has the highest public transport mode share in Kent, with 19% of construction workers using public transport compared with 23% across all industries. Based on this, this analysis uses the mode share for all industries, rather than the Kent mode share for construction workers which will understand the likely share of public transport trips.

3 London Resort Staff Distribution

Mode distribution

3.1 The modal distribution of commute trips is car-heavy with 78% of trips estimated to be made by car. Table 2 shows how this translates into the number of staff estimated to travel by car and public transport.

3.2 There is uncertainty about the options for travel to London Resort from the north of the river. Options are currently being considered to offer a ferry from Tilbury ports which may include parking options to allow car and public transport users to arrive at the port.

3.3 Two scenarios are compared here:

- Scenario 1: some transport improvements to trips arriving at Tilbury affecting both car and public transport trips; and
- Scenario 2: improved transport improvements from the north of the river affecting both car and public transport trips. This includes the improvements to Tilbury but also assumes that a service from Grays is included as a proxy for better accessibility from north of the river.

3.4 Under scenario 2, there will be further improvements to trips arriving from the north of the river, on top of the Thurrock ferry. This has been modelled as an additional ferry service from Grays but is a general proxy for larger scale improvements from the north side of the Thames. Under this scenario slightly more trips are made by public transport as accessibility improves further, and more trips are made from the Tilbury area.

3.5 This model is applied to home-based workers – ie workers that will be from within a commutable distance and will not require temporary accommodation. The construction of Gate 1 is expected to support between 3,300 and 5,000 jobs onsite in the peak. Gate 2 is expected to support between 1,100 and 1,700. It is estimated that 50% of the peak workforce (for both gates) will be home-based and commute to the site daily during the peak period. The remaining 50% will be non-home based, travelling from a further distance and require accommodation. This note focuses on the home-based staff who will commute each day and focuses on the peak workforce during Gate 1 which is a worst case assessment of the traffic impact. On that basis, there is estimated to be between 1,650 and 2,500 home based workers who will commute to the site.

Table 2: Staff distribution by mode (both scenarios) – Gate 1 peak on site construction

	Low	Peak
Staff	1,650	2,500
Travel by car	1,300	2,000
Travel by public transport	350	500

Distribution by local authority

3.6 The majority of construction workers commute from Gravesham and Dartford due to the proximity to London Resort. Thurrock also gets a relatively large share of commute trips due to the option of a short 10 minute ferry from Tilbury, and the high level of Thurrock residents working in construction (9,900) compared with Dartford (4,100) and Gravesham (3,300).

3.7 Table 4 shows the distribution of construction worker commutes by local authority. This is also visualised for public transport and car separately in Figure 2 and Figure 3 respectively under scenario 1.

Figure 2: Construction worker distribution (public transport) – scenario 1

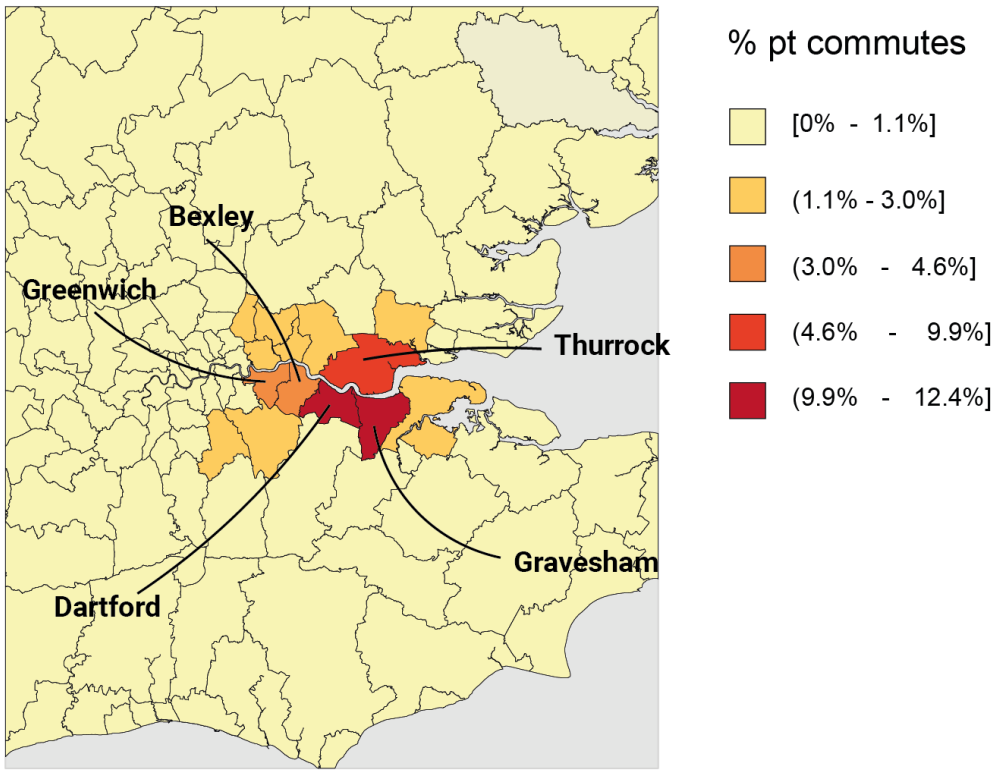

Figure 3: Construction worker distribution (car) – scenario 1

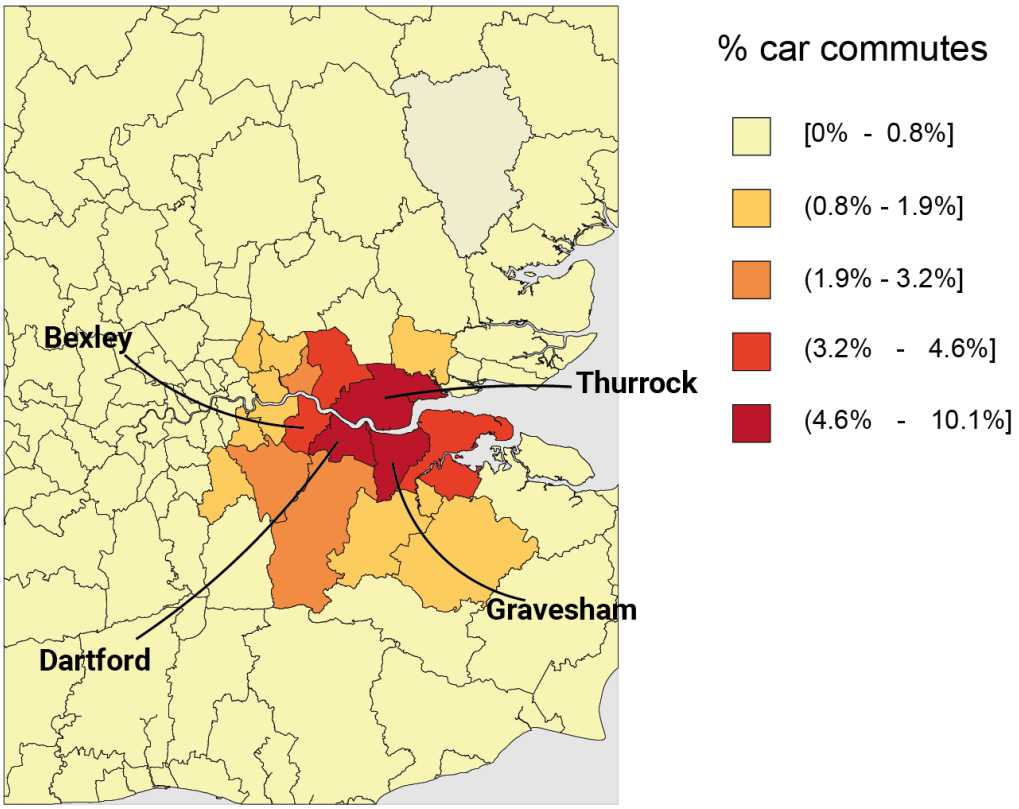

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Table 3: Construction worker trip distribution by local authority

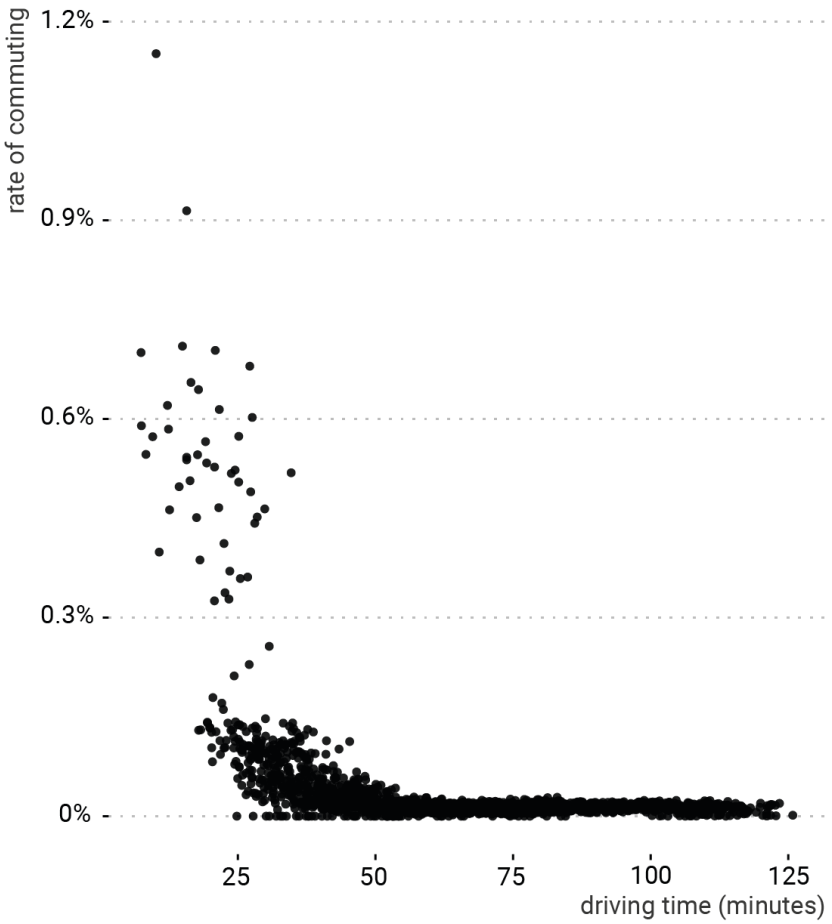
Local authority	Commuting distribution (scenario 1)	Commuting distribution (scenario 2)
Gravesham	11%	10%
Dartford	9%	9%
Thurrock	8%	10%
Bexley	5%	5%
Medway	4%	4%
Havering	4%	4%
Bromley	3%	3%
Sevenoaks	3%	3%
Barking and Dagenham	3%	3%
Greenwich	2%	2%
Newham	2%	2%
Basildon	2%	2%
Redbridge	2%	2%
Waltham Forest	2%	1%
Croydon	1%	1%
Tonbridge and Malling	1%	1%
Lewisham	1%	1%
Maidstone	1%	1%
Southwark	1%	1%
Central Bedfordshire	1%	1%
Epping Forest	1%	1%

Local authority	Commuting distribution (scenario 1)	Commuting distribution (scenario 2)
Enfield	1%	1%
Brentwood	1%	1%
Brent	1%	1%
Barnet	1%	1%
Ealing	1%	1%

5 Appendix: Predicting Trips from North of the Thames

5.1 The trip distribution from MSOAs to London Resort was taken as a starting point. This is the trip distribution from Section 3, adjusted to be in line with comparator site commute patterns. The relationship between this initial trip distribution and travel time (for car trips) is shown in Figure 4.

Figure 4: Travel time vs trips for commutes to the Immediate Area



Source: ONS (2011)

5.2 Based on the relationship between trips and travel time, this analysis aims to predict the impact on the number of trips from Thurrock, and other areas that will benefit from a ferry option at Tilbury. These areas are highlighted in red in Figures 5 and 6. It is hypothesised that these trips are below their 'expected' level of commutes due to poor public transport linkages and the fact car trips must first drive west of London Resort to cross the river.

5.3 Travel times have been calculated from each MSOA to London resort going via Tilbury using the PT/car travel time to Tilbury and adding on a 10 minute penalty for the ferry from Tilbury to Resort. This analysis considers those MSOAs for which it is quicker to go via Tilbury than directly to London Resort and adjusts the journey time on that basis.

Figure 5: Travel time vs trips (Tilbury trips highlighted)

Modelling approach

5.4 From the data it is clear that there is a non-linear relationship between the number of trips and travel time. The approaches considered to model the non-linear relationship were narrowed down to:

- Logistic Regression (logit)
- Multivariate Adaptive Regression Splines (MARS)

5.5 Models such as linear regression with polynomial or log specifications were discounted as poorly fitting.

5.6 It was hypothesised that other factors such as working age population in the origin MSOA would also be a good predictor of the number of trips made to the Immediate Area. It was found that modelling commutes as a proportion of working age residents (the rate of commuting) was more predictive than modelling the absolute number of commute trips.

5.7 To choose between the models, 10-fold cross validation was used to test the model performance on out-of-sample data on 10 different hold-out samples. The performance of each model (R-squared and mean absolute error) are shown in Tables 4 and 5.

5.8 The R-squared is a measure of the proportion of the variance in trips made that can be explained by our model. Mean Absolute Error (MAE) is a measure of the average error – it differs from R-squared by not penalising more heavily those points that are further away from the prediction. R-squared is the more 'meaningful' of the two-evaluation metrics as it is scale-free, whereas MAE can only be judged relative to the other values but is more robust to outliers. Seeing that R-Squared and MAE is highest for the MARS model, MARS is selected for use in prediction.

5.9 The relationship was modelled separately for trips made by PT and by car. In both relationships, the MARS model was chosen as the best performing model.

Table 4: Car model comparisons (cross validated errors)

Model	R-squared	MAE
Logit	0.58	1.8e-04
MARS	0.72	1.3e-04

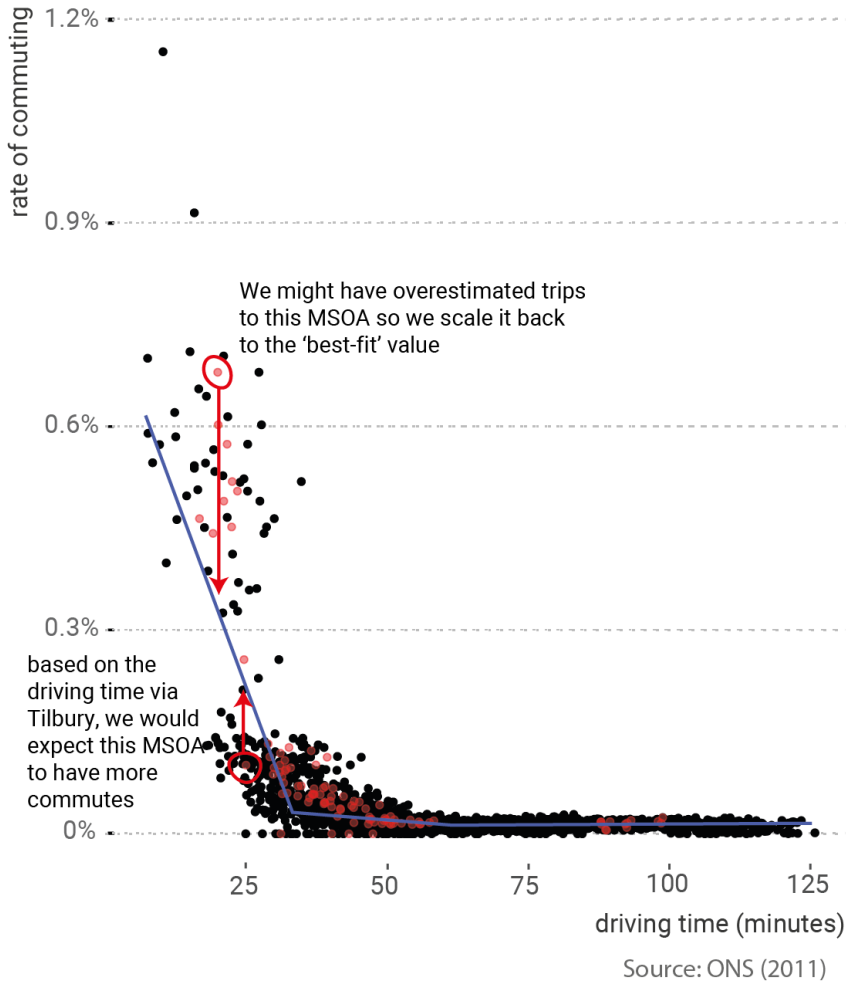
Table 5: PT model comparisons (cross validated errors)

Model	R-squared	MAE
Logit	0.27	6.22e-05
MARS	0.45	6.23e-05

Final model

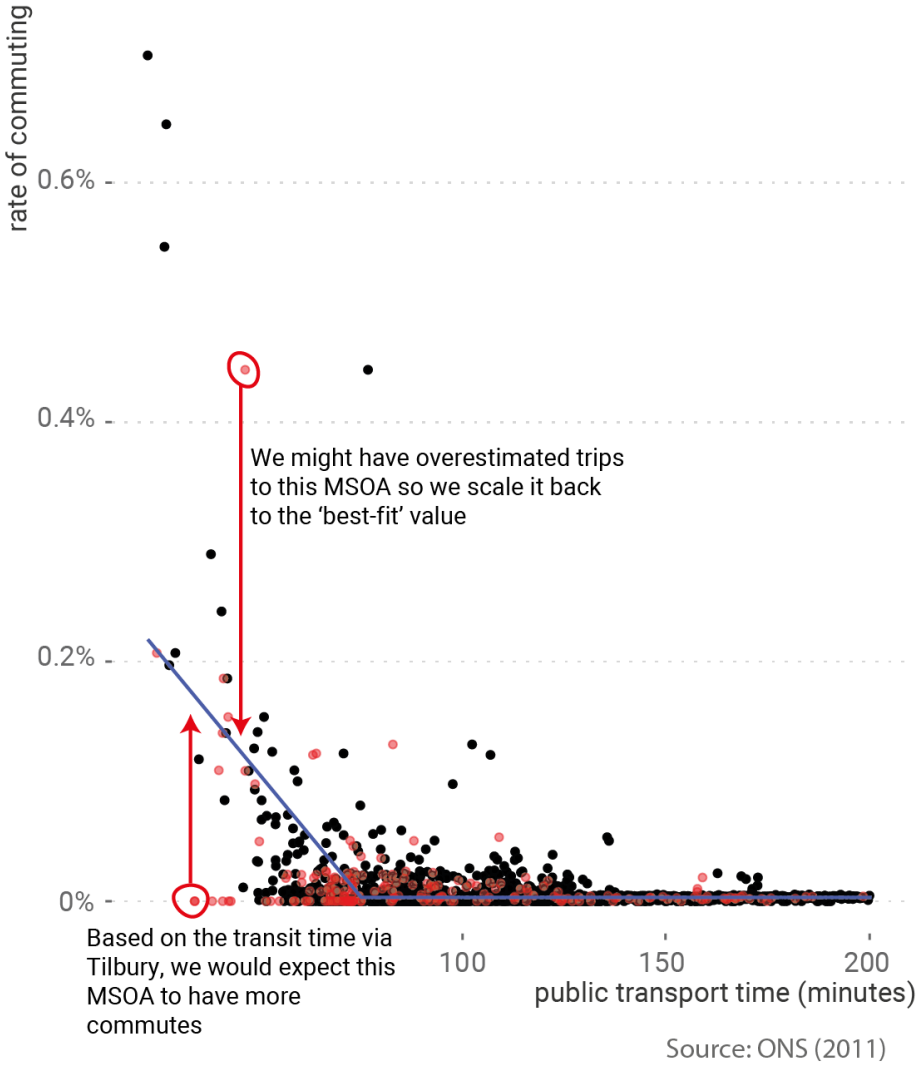
5.10 The final model specification chosen was the MARS model. The model was chosen for its highest cross-validated R-Squared value. This model splits the non-linear dataset into segments where change points are found in the data. Using travel time and working age population as predictors, the model finds two change points, or 'knots' in the relationship. The relationship found between travel time and trips is shown in Figures 7 and 8, with MSOA trips that are quicker via Tilbury highlighted in red.

Figure 6: MARS model fit (car trips)



Source: ONS (2011)

Figure 7: MARS model fit (PT trips)



5.11 The model is used to estimate the number of commuters from Thurrock based on the (adjusted) travel time to the Immediate Area. These predicted commutes are used in preference to the actual observed census data since it is expected that transport constraints on trips from Thurrock will be overcome once London Resort once appropriate interventions are in place. Similarly, it is expected that some of the data derived from the census will over-estimate commute trips as no account was initially made for the higher transport time from MSOAs north of the river.

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