Croudace Strategic Limited

Officer's Meadow
Land off Alexander Lane
Shenfield

Brentwood Borough Council

Transport Strategy

March 2019

Network Building, 97 Tottenham Court Road, London W1T 4TP www.vectos.co.uk
Registered address: Vectos (South) Limited, Network Building, 97 Tottenham Court Road, London W1T 4TP. Company no. 7591661

REPORT CONTROL

Document:	Transport Strategy
Project:	Officers's Meadow, Land off Alexander Lane, Shenfield
Client:	Croudance Strategic Limited
Job Number:	152080
File Origin:	X:\Projects\150000\152080 - Shenfield\WORD\R02-DD-Transport Startegy-190215.docx

Document Checking:

Primary Author	Dorota Dys	**Initialled:**	DD

Contributor	**Initialled:**

Review By	Stuart Morse	**Initialled:**	SM

Issue	Date	Status	Checked for Issue
1	12.03.19	Draft	SM
2	14.03.19	Draft 2	SM
3			
4			

Contents

Figures

Appendices

EXECUTIVE SUMMARY

Vectos is retained by Croudace Strategic Limited to provide transport advice in relation to proposals for the development of land north of Shenfield referred to as Officer's Meadow. The site is within administrative boundary of Brentwood Borough Council.

The site is located to the north of the Shenfield and is bound by existing residential properties to the north, open farmland to the east, and Chelmsford Road to the west. To the south, the site is bound by both Alexander Lane and the existing mainline railway. The site is located circa 850m 'as the crow flies' to the Shenfield Railway Station and the town centre.

The site forms part of a wider allocation in the emerging Brentwood Borough Council Local Plan under R03: Land North of Shenfield. In line with this draft policy the development would consist of around 510 dwellings and a 60-bedroom care home.

Furthermore, the wider allocation site will deliver a school in addition to further dwellings and employment opportunities. The mix of uses will enable journeys between these uses to be made by non-car modes.

The site is in an accessible location for pedestrians and cyclists, in addition to having good access to public transport. The improvements to Shenfield Railways Station and the services provided by the Elizabeth Line will enhance public transport options. The site is close to a variety of existing local facilities.

An example of this is the existing journeys to work from the surrounding area to the railway station. The train is used for around a third of journeys to work and this is the main reason that car driver/ passenger is low.

The proximity of the site to existing and future local services will reduce trip generation and promote sustainable communities.

The proposed development of the site is consistency with the national and local policy objectives as the site is in an accessible location for walking, cycling and public transport and as part of the proposed development the accessibility of the site will be further enhanced with the use of sustainable transport modes, especially walking and cycling, being encouraged.

The proposed development on the site will be sustainable and will include facilities, including a school, to support the proposed housing which will reduce transport demand.

There are options to provide access to the site for pedestrians, cyclists and vehicles that are feasible and deliverable.

A Travel Plan will be produced for the site to further encourage the use of sustainable modes of transport (walking, cycling and bus and train use).

The predicted traffic generation of the site and the wider allocation has been calculated to ensure that a robust assessment is undertaken of the primary access.

In association with the development of the site there are identified opportunities to encourage walking and cycling through new and improved routes/ crossing facilities. Improving the accessibility of what is already a site in a sustainable location will help to minimise vehicular traffic demand.

There are options for the provision of access to the site and the initial assessment work has shown that all of these are feasible and would safely accommodate future traffic levels. An access onto Chelmsford Road and onto Alexander Lane would serve the site without fettering access to the wider allocation site. The Alexander Lane access also provides opportunity to facilitate the diversion of Alexander Lane and delivery of a quiet lane for pedestrians and cyclists.

There are no identified offsite highway constraints that would prevent the development and there are improvement schemes identified in the emerging Local Plan that could be implemented. This mitigation would be developed in detail to support a planning application.

The site is in an accessible location which is close to local facilities and measures as part of/ and associated with the development of the site would further improve accessibility.

Access can be provided to the site and there are no identified highway constraints that would prevent the proposed development coming forward. There are highway improvements that could mitigate the impact of traffic associated with the site.

It is concluded that the proposed housing is deliverable and that it reflects local and national aspirations to promote sustainable communities.

1 INTRODUCTION

1.1 Vectos has been appointed by Croudace Strategic Limited (Croudace) to provide transport and highways advice in relation to the development of land north of Shenfield referred as 'Officer's Meadow'. The site is part of a wider development allocation as defined in Policy R03 – *Land North of Shenfield* of the emerging Brentwood Borough Council Local Plan, which is now in Regulation 19 Consultation Draft.

1.2 The Officer's Meadow site forms part of the wider draft Policy R03: Land North of Shenfield allocation which is made up of approximately 58.2 ha for around 825 dwellings, new primary school, 60-bedroom residential care home and 2.0ha of employment land. Land North of Shenfield is allocated for residential development within the draft Local Plan.

1.3 The location of the Officer's Meadow site in context of the Land North of Shenfield allocation is shown in **Figure 1.**

1.4 The Officer's Meadow site is likely to comprise around 510 dwellings together with a 60-bedroom care home.

1.5 The wider allocation in Policy R03 comprises a further 315 dwellings, 2.0ha of employment and the provision of 2.1ha of land for a co-located primary school and early years education and childcare nursery.

1.6 This Transport Strategy has been prepared to set out how the Officer's Meadow site may be accessed alongside the wider allocation site. In presenting the access strategy with reference to the allocation site, relevant Local Plan policies relating to transport have been referred to, in order to show how the proposals are consistent with the emerging Local Plan.

Scope of Transport Strategy

1.7 This Transport Strategy adds to the initial planning representations presented for the site and sets out the principle of a sustainable transport strategy for Officer's Meadow within Policy R03: Land North of Shenfield. It assesses the locational characteristics of the site in the context of social and sustainability policy.

1.8 Access from Chelmsford Road and Alexander Lane are deliverable with the latter facilitating the creation of a quiet lane on Alexander Lane for pedestrians and cyclists.

1.9 It judges that this is an excellent location in transport terms for growth and that new development must take full advantage of the location by designing for sustainability and implementing management systems to influence community and travel patterns.

1.10 The development will create a sense of place, a community within which people will interact and undertake day to day activities, resulting in 'internalisation' of movement. By designing in social inclusion, transport effects on the wider area can be reduced.

Report Structure

1.11 The remainder of this report is structured as follows:

Section 2 - summarises current transport planning policy context;

Section 3 - provides the context for the proposals in relation to the site location and connectivity;

Section 4 - sets out the proposed transport strategy;

Section 5 - presents and initial trip assessment;

Section 6 - assesses the suitability of the proposed access in capacity terms; and

Section 7 - concludes the findings of this report.

2 TRANSPORT PLANNING POLICY CONTEXT

2.1 This section provides a review of the planning policy relating to the proposed site allocation. Brentwood Borough Council is currently preparing a Local Plan that is undergoing Regulation 19 Consultation therefore more detailed review of the emerging policy is presented.

National Planning Policy Framework, February 2019

2.2 The National Planning Policy Framework (NPPF) is a central Government planning document produced by the Ministry of Housing, Communities and Local Government. It provides the policy framework to guide local authorities when preparing their local plans and determining planning applications.

2.3 The document (Chapter 9) recognises importance of transport issues when considering new development proposals, so that:

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

2.4 Paragraph 108 states:

"In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

- *appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
- *safe and suitable access to the site can be achieved for all users; and*

- *any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree*."

2.5 Paragraph 109 states:

"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."

Emerging Brentwood Local Plan 2016-2033, Regulation 19 Draft, February 2019

Policy R03 – Land North of Shenfield

2.6 The Officer's Meadow site forms part of the wider allocation in Policy R03 'Land North of Shenfield'.

2.7 The wider site is allocated in the emerging policy for a mixed use residential led development. As defined in the site policy **section A *Amount and Type of Development***, the site will provide extension of the existing Shenfield built-up area. The site is allocated to provide for around 825 homes that are anticipated to be delivered between 2023 and 2031.

2.8 Whilst the allocation is comprised of a number of parcels that can be brought forward at different times, it is important to consider how the site will develop holistically. Each individual parcel brought forward should consider connectivity with the wider area and other parcels within its masterplan. The provision of well-connected internal road layout that facilitate good accessibility is identified in section B part f of the policy. It is particularly important to consider collective requirements for infrastructure provision and ensuring that these are delivered appropriately.

2.9 A sustainable transport strategy is integral to the development of the site. The masterplan will be designed to allow residents, employees and visitors a real choice as to how they travel to, from and within the site. Furthermore, the site would provide a mix of key facilities such as primary education and healthcare that would further enhance its sustainability.

2.10 The scale of development proposed requires the need for new community services and facilities including a new primary school, open space and new facilities. These facilities should be an appropriate scale to serve the new communities and positioned in a location that is easily accessible by walking, cycling and public transport to the majority of residents in the development.

2.11 The new primary school along with co-located early and childcare nursery should be delivered early on the development.

2.12 The new primary school should be located immediately to the south of Officer's Meadow and accessed from Alexander Lane in close proximity to the existing Shenfield High School access, to ensure a reduction in trip generation and sustainability measures.

2.13 **Section B *Development Principles*** of the site policy states in part c that vehicular access should be taken from Chelmsford Road and Alexander Lane. This site access arrangement is further identified in part e where it is identified that this has the potential for the diversion of Alexander Lane to create a quiet lane along its existing alignment for pedestrians and cyclists. This Transport Strategy confirms the delivery of these proposals.

2.14 New and enhanced pedestrian and cycle connections will be expected to be provided within the site and to the wider area. As individual parcels of land are separated by Chelmsford Road, pedestrian and cycle crossings need to be provided where appropriate to allow safe connection between two areas as part b of **section C *Infrastructure Requirements*** identifies.

2.15 The site should maximise opportunities for sustainable transport modes to connect with Shenfield railway station, local services and shops as defined by section B part e of the policy. Enhancement to the Public Right of Way that runs across the site will enhance these links and accord with section B part h of the policy.

2.16 The development will be expected to adequately mitigate its likely impacts on the performance of the local and strategic highway network. Neighbourhoods where alternative forms of transport to the private car are prioritised.

2.17 The planning application for the site development should comprise a Travel Plan that will include a package of measures to ensure active and sustainable means of travel are available to all new residents, to promote the benefits of sustainable transport and secure a modal

shift from the private car. The development will also be required to provide good accessibility for bus services and improve nearby bus stop infrastructure.

Transport Related Policies within the Draft Local Plan

2.18 A number of policies presented in the draft Local Plan are directly related to transport matters. Those policies are as follows:

- Policy BE11: Strategic Transport Infrastructure
- Policy BE12: Car-Limited Development
- Policy BE13: Sustainable Means of Travel and Walkable Streets
- Policy BE14: Sustainable Passenger Transport
- Policy BE15: Electric and Low Emission Vehicle
- Policy BE16: Mitigating the Transport Impacts of Development
- Policy BE17: Parking Standards

2.19 **Policy BE11 'Strategic Transport Infrastructure'** focuses on delivering improvements to the railway in the area. Shenfield and Brentwood stations will benefit from completion of the Elizabeth Line which will provide additional railway capacity and improved connectivity with Central London.

2.20 The council will aim to maximise the benefit of these improved rail services through improvements to station accessibility by sustainable travel modes. New developments will be expected to provide good pedestrian/ cycle and public transport links with railway stations. Funding for station facilities improvements would also be secured.

2.21 The council will continue to work with the highway authority, statutory bodies and key stakeholders to coordinate and deliver improvements to the local highway network and other non-highway measures.

2.22 Developments in close proximity to schools and early years childcare facilities should facilitate and attractive pubic realm that is safe and encourages people to walk and cycle.

2.23 **Policy BE13: 'Sustainable Means of Travel and Walkable Streets'** identifies a modal hierarchy placing walking and cycling as the greatest priority and car use as the lowest. This approach is in accordance with the NPPF.

2.24 The policy recognises the requirement for well-connected layouts to facilitate movements associated with active modes and travel and to reduce conflict.

2.25 The policy identifies the need to safeguard existing and proposed sustainable travel routes. Whilst the principle of this section of the policy is understood to provide a greater level of priority to sustainable modes, where suitable alternatives are provided, such safeguarding would not be necessary.

2.26 The role that the provision for car clubs at new developments to help reduce the need for private car parking is identified.

2.27 Parking matters are covered under three specific policies; **Policy BE12: Car-Limited Development, Policy BE15: Electric and Low Emission Vehicle and Policy BE17: Parking Standards**.

2.28 **Policy BE12 'Car-Limited Development'** confirms that subject to considerations relating to access, layout, travel alternatives and enforcement car parking may be limited. The principle allows greater flexibility across developments to reduce car dependency.

2.29 Later policies such as **Policy BE17 'Parking standards'** refers to the Essex Parking Standards which as currently drafted, pre-dates the first NPPF and positively seeks to ensure parking is provided to accommodate car ownership. Parkign standards in that document are outlined as minimum standards for residential properties

2.30 The 'Essex Parking Standards' identifies that proposals should comply with the design standards and provision levels for uses and transport modes specified. At certain locations such as urban, retail areas and railway stations where commuter parking is required, the application of standards may be flexible. Proposals that do not conform directly with these standards should be supported by evidence detailing the local circumstances and justify deviation from the standards.

2.31 The apparent conflict between BE: 12 and the Essex Parking Standards should be reviewed to ensure that the two align.

2.32 **Policy BE15: 'Electric and Low Emission Vehicles'** identified that appropriate infrastructure should be provided. This clearly is consistent with national policy and with wider policies set out in the Local Plan.

2.33 Whilst the changing nature of the technology is acknowledged which restrict the ability to be too prescriptive, an indication of appropriate infrastructure should be provided to provide a degree of certainty over expectations.

2.34 **Policy BE14: 'Sustainable Passenger Transport**' identified that the council will facilitate and support passenger transport to help deliver the Local Plan.

2.35 The final paragraph of the policy places responsibility upon developers to secure passenger transport services in the first sentence with the second outlining that the council will seek to secure service funding to deliver enhancements.

2.36 In a plan-led environment with numerous development sites, a number of which are smaller scale that cannot support viable services in isolation, the council must take the lead in securing services across the borough.

2.37 **Policy BE16 'Mitigating the Transport Impacts of Development'** states that *"developments should seek to ensure that they will not have an unacceptable transport impact and/ or any significant impacts from the development on the transport network (in terms of capacity and congestion) and on highway safety can be effectively mitigated to an acceptable degree."* The developments will be required to submit Travel Plans and Transport Statements/ Assessments in accordance with the threshold set out in Essex County Council's Development Management Policies.

2.38 Developers will also be expected to provide proportionate financial contributions/ mitigation measures where reasonable and necessary to mitigate the transport impacts of the development to an acceptable degree. 'Soft' and 'hard' measures should be implemented on site from the earliest date to ensure effective influence on travel behaviour.

Local Plan Evidence Base – Transport Assessment

2.39 The Brentwood Borough Council Local Plan Transport Assessment was issued in October 2018 by PBA on behalf of Brentwood Borough Council. The document sets out the approach to the modelling work and presents junction capacity assessment resulting from the proposed allocations in the Emerging Local Plan. The assessment includes Land North of Shenfield.

2.40 A four-stage transport modelling process has been undertaken: trip generation, trip distribution, mode share and trip assignment. The outputs were produced for the AM and PM peak in both Reference Case and 2034 Forecast scenario. The impact on junctions in the close proximity to the site is summarised in **Table 2.1.**

Table 2.1: Summary of junction capacity assessment

ID	Junction Location	Conclusion
1	A1023 Chelmsford Rd/ A129 Hutton Rd / A1023 Shenfield Rd	Hutton Rd/ A1023 Shenfield Rd Implementation of MOVA (or similar) as a mitigation should provide adequate capacity
22	A1023 Chelmsford Road/ Alexander Lane	Operates below capacity - No mitigation required
23	A12 Junction 12	Operates below capacity - No mitigation required

2.41 As shown in the **Table 2.1** junctions in close proximity would be minimally affected by the development off Alexander Lane. Only junction in Shenfield Town centre of the A1023 Chelmsford Road/ A129 Hutton Road/ A1023 Shenfield Road would require mitigations in form of MOVA implementation. The cost of implementing MOVA is circa £170,000 per junction.

2.42 It is understood that the Transport Assessment is being assessed by Essex County Council in their role as the highway authority and at the time of writing has yet to be fully endorsed.

Infrastructure Delivery Plan

2.43 The Infrastructure Delivery Plan (IDP) provides a schedule of infrastructure requirements to help support new development growth planned within BBC Local Plan in the period up to 2033. Chapter 3 of the IDP sets out transport infrastructure requirements for the Local Plan period.

2.44 The document recognises that Brentwood and Shenfield will benefit from completion of the Elizabeth Line that will provide rail services between Reading in the west and Shenfield across central London. At peak times the current planned timetable includes 12 services per hour from Shenfield to London, in addition to the existing services that serve this station. This will provide a significant increase in capacity for rail travel, as well as improved service frequencies. In addition, the Elizabeth Line will provide improved access to parts of London

and beyond, including Heathrow. Furthermore, the number of passengers using the station has been increasing in the recent years.

2.45 Shenfield Railway Station acts as a terminus for the new Crossrail services but suffers from significant congestion and a poor public realm environment within the immediate vicinity of the station. Greater Anglia (who manages the station) is currently working upon an Access to All bid for access improvements at the station. The public realm environment around the station has also been subject to masterplanning in conjunction with Essex County Council, Brentwood Borough Council and Greater Anglia.

2.46 Part B of the IDP provides a schedule of key infrastructure improvement associated with the Local Plan. Under a reference ED1 'Officer's Meadow Primary' it is required to provide land for a new primary school with early years provision. Funding for the new school should be secured though Section 106 Agreement or other, with the cost estimated as £7,500,000. It is anticipated that new primary school will be provided before 2028.

2.47 The other non-site-specific infrastructure requirements include:

- Introduction of new walking and cycling infrastructure within new developments, particularly strategic sites (T10);
- Various junction improvements measures (T24);
- Feasibility study for bus service improvements, particularly linked to new developments and major transport hubs (T14); and
- Improvements to the existing cycle network within Brentwood (T11-T13).

3 EXISTING CONDITIONS

3.1 This section of the Transport Strategy provides details of the existing conditions at the site, including accessibility by non-car modes, and the availability of key facilities for future residents.

Site Location

3.2 The location of the Officer's Meadow site in its wider context including the wider draft allocation is shown at **Figure 1.**

3.3 The site is located to the north of the Shenfield and is bound by existing residential properties fronting the A1023 Chelmsford Road to the north, open farmland to the east, and the A1023 Chelmsford Road to the west. To the south, the site is bound by both Alexander Lane and the existing mainline railway.

3.4 The site is located circa 850m 'as the crow flies' to the Shenfield Railway Station and the town centre, and as such provides opportunities for future residents to walk and cycle to these destinations. The transport opportunities provided by the site are discussed later within this report.

Local Highway Network

3.5 The A1023 Chelmsford Road provides a strategic route to the A12 to the north, through Shenfield and Brentwood, connecting with the A12 and M25 at Junction 28 to the south. It provides a single lane in each direction, with a wide central reserve which is used to provide access at junctions. It is restricted to a 40mph speed limit to the north of Shenfield, and 30mph as it passes through Shenfield and Brentwood.

3.6 Alexander Lane provides a route between the A1023 Chelmsford Road to the centre of Shenfield, connecting with Rayleigh Road, just north of the railway station.

3.7 Alexander Lane provides a narrow, non-delineated track along the south-eastern site boundary, and then widens from the Alexander Lane Recreation Ground towards Chelmsford Road, and from the existing residential dwellings to the south of the site into Shenfield.

3.8 Alexander Lane is restricted and does not permit access for vehicles larger than 7.5T, except for the purposes of loading, and is subject to a 30mph speed limit.

Pedestrian and Cycle Access

3.9 Alexander Lane does not currently provide pedestrian facilities within the immediate vicinity of the site, as there is no footpath between the existing residential dwellings to the south of the site and the junction with the A1023 Chelmsford Road. The lack of footway leading towards Chelmsford Road restricts movements towards the school. A footway is provided on the southern/ western side of Alexander Lane to the south of the site.

3.10 The site bounds the A1023 Chelmsford Road to the north-west which provides opportunity for the site access to be taken directly. A dedicated cycle lane runs on the north side of Chelmsford Road, between the junction with the A12 and the junction with Alexander Lane (**Image 3.1** Left).

Image 3.1: Left: dedicated cycle route on the northern side of the A1023 Chelmsford Road; Right: Footway of the southern side of the A1023 Chelmsford Road

3.11 On the south side of Chelmsford Road, a footpath is provided along the length of the carriageway (**Image 3.1** Right). The A1023 Chelmsford Road provides a pedestrian route to Shenfield town centre.

3.12 In addition to the above access points into the site, a footpath forming a Public Right of Way (PROW), number 86 runs through the eastern part of the site, extending from Chelmsford Road to Alexander Lane. This PROW connects with existing pedestrian facilities on Alexander

Lane, thus providing a route into Shenfield. The route is currently unsurfaced and unlit as shown in **Image 3.2**. A plan showing PROW in the close proximity to the site is provided in **Figure 2.** The plan also demonstrates that only northern section of the PROW between the A1023 and railway line falls within the site boundary.

Image 3.2: Public Right of Way 86 in the proximity of the site

3.13 Footways are also present on both sides of Oliver Road and Hunter Avenue south of the site. An audit of the route to Shenfield Station via Hunters Avenue is provided in **Figure 3.** Footway along northern side of Oliver Road connects directly with the short section of footway along Alexander Lane south. A continuous footway is provided along western side of Hunter Avenue; however, no dedicated crossing facilities are in place at the junction with Oliver Road.

3.14 The footway on the eastern side of Hunters Avenue runs for circa 550m from the junction with Oliver Road and discontinuous adjacent to the Shenfield railway station car park. No dedicated crossing facilities are provided across Hunters Avenue; however, the main function of the road is residential access therefore traffic flows are generally low. Pedestrian access to Hutton Road and Shenfield railway station is taken from Hunter Avenue.

3.15 Alexander Lane offers an alternative route to Shenfield Railway Station. From the junction with Oliver Road, the road continuous south under a railway bridge for further circa 360m

where it meets with Rayleigh Road at the mini-roundabout junction. A continuous footway runs along eastern side of Alexander Lane east of railway bridge with a zebra crossing in place south the junction with Long Ridings Avenue. Uncontrolled crossings with dropped kerbs and tactile pavements are incorporated within Alexander Lane and Rayleigh Road east at the mini-roundabout.

Local Facilities

3.16 A plan showing the site in the context of key local facilities is shown in **Figure 4.**

3.17 Shenfield High School and Alexander Lane Recreation Ground are located immediately to the south of the site, although no footways are currently present along majority of Alexander Lane length.

3.18 Long Ridings County Primary School and Poppetts Day Nursery are both located to the south of the site on Long Ridings Avenue. The Primary School is 2 Form Entry (2FE) and serves the areas of Shenfield and Hutton, whilst Poppetts Day Nursery is an independent nursery providing care for up to 66 children aged 3 months to 5 years. Again, both of these educational facilities are considered to be within walking distance.

3.19 Furthermore, as part of the site allocation 2.1ha for a co-located primary school and early years and childcare nursery would best be located directly north of Shenfield High School. The development north of Alexander Lane would fall within the new school catchment area. Further details of the proposed school will be provided in subsequent chapters of this report.

3.20 In addition to its close proximity to local schools, the site is approximately 1km walking distance from the town centre and Shenfield Railway Station, and therefore is within walking distance to a number of key local facilities.

3.21 The facilities available within the town centre are summarised below in **Table 3.1.**

Table 3.1: Town Centre Facilities

Facility Type	Name	Approximate Distance
GP Surgery	Mount Avenue Surgery	900m
Independent School	Herington House School	900m
Dental Clinic	Vitality Dental	1.0km
Supermarket	Co-Operative Food	1.0km
Bank	Lloyds Bank	1.0km
Bank	Barclays	1.0km
Bank	Natwest	1.0km
Supermarket	Tesco Express	1.1km
Library	Shenfield Library	1.2km
Dental Clinic	Talbot Dental	1.2km

3.22 In addition to those facilities shown in **Table 3.1** above, there a number of cafes, restaurants, bars and retail units located within the town centre. The location of the site therefore provides residents with opportunities to walk and cycle rather than travelling by car when undertaking everyday activities.

Public Transport

Local Bus Services

3.23 A number of bus services are available within the vicinity of the site. A bus route map showing the routes and the closest stops to both site accesses is shown at **Figure 5.**

3.24 Two bus stops are located on Long Ridings Avenue, just south of Poppetts Day Nursery and Long Ridings Country Primary School. These stops provide pole and flag with no timetable information as shown in **Image 3.1.** The northbound stop is served by bus route 81, X81 and 80C whilst the southbound stop is served by service number 80A and 808.

Image 3.3: Bus stops on Long Ridings Avenue (left: northbound; right: southbound)

3.25 A further two bus stops are located on the A1023 Chelmsford Road, adjacent to southernmost properties off Chelmsford Road. These stops, identified with pole and flag only (**Image 3.4**), are served by bus routes 351, 431 and 436.

Image 3.4: Bus stops on the A1023 Chelmsford Road (left: southbound; right: northbound)

3.26 Two stops are also located to the south of Alexander Lane. These stops provide bus shelters (**Image 3.5**). The northbound stop is also served by bus routes 351, 431 and 436, whilst the southbound stop is served by routes 48, 351, 434 and 608.

Image 3.5: Northbound bus stop on the A1023 Chelmsford Road south of the junction with Alexander Lane

3.27 A summary of the bus services is presented in **Table 3.2.**

Table 3.2: Local Bus Services

Bus Service	Route	Average Weekday Frequency
48	Basildon - Laindon - Great Berry - Herongate - Shenfield	School service only
80C	Railway Station – Shenfield Station – Hutton (circular)	Sunday only
81	Brentwood Station – Brentwood High Street – Shenfield Station – Warley	Every 20 – 30 minutes
X81	Lakeside - Brentwood Rail Station - Shenfield - Hutton	30-30 minutes, school peak hours only
351	Brentwood – Ingatestone – Chelmsford	Every 20-30 minutes
431	Shenfield – Doddinghurst – Hook End – Blackmore	School service only
434	Ongar - Kelvedon Hatch - Shenfield	School service only
436	Shenfield High School – Pilgrims Hatch – Kelvedon Hatch – Ongar	School service only
608	Gidea Park – Harold Hill – Brentwood – Shenfield	School service only

3.28 It can be observed from the summary presented in **Table 3.2** that, notwithstanding the likelihood of future residents attending the potential 'all through' school, a number of services to existing schools would be available for future residents of the site, as well as two regular services providing access into Shenfield, and further afield to Brentwood and Chelmsford. These services provide future residents with a real opportunity to travel sustainably, and would therefore be promoted to future residents.

Rail Services

3.29 As described previously, the site is located approximately 1km north of Shenfield Railway Station, equating to around a 10-minute walk. **Figure 3** provides an audit of the route to the station from the site. The station is on the Great Eastern Main Line and is managed by Abellio Greater Anglia.

3.30 Improvements to the station access have been identified in the draft Local Plan as one of the key infrastructure improvements to be delivered. At present the access to the station is taken onto the A129 Hutton Road with the taxi rank located directly outside the site access (**Image 3.6**). In addition to poor signage and challenging wayfinding in the area, the step free access to the station is confusing and poorly signed.

Image 3.6: Main access to Shenfield Railway Station

3.31 A total of 112 cycle parking spaces are provided at the station. These are generally covered and available in few locations in the proximity to station main access (**Image 3.7** and **Image 3.8**). A total of 426 (plus 7 accessible spaces) car parking spaces are provided at the station.

Image 3.7: Cycle parking north of Hutton Road and station access

Image 3.8: Cycle storage east of the Shenfield Station Access

3.32 The station is served by a number of high frequency routes, as summarised below in **Table 3.3.**

Table 3.3: Rail Services from Shenfield Station

Destination	Calling Points	Average Weekday Frequency (Trains per Hour)	Journey Time to final station (mins)
London Liverpool Street	Stratford (London) or Brentwood – Harold Wood – Gidea Park – Romford – Chadwell Heath – Goodmayes – Seven Kings – Ilford – Stratford (London)	13 – 21	23-43
Southend Victoria	Billericay – Wickford – Rayleigh – Hockley – Rochford – Southend Airport – Prittlewell	3 – 5	35
Braintree	Ingatestone – Chelmsford – Witham – White Notley – Cressing – Braintree Freeport	1	40
Ipswich	Chelmsford – Witham – Kelvedon – Marks Tey – Colchester Or Chelmsford – Hatfield Peverel – Witham – Kelvedon – Marks Tey – Colchester – Manningtree	1 – 2	60
Clacton-on-Sea	Ingatestone – Chelmsford – Witham – Marks Tey – Colchester – Wivenhoe – Thorpe le Soken	1	63-68

3.33 **Table 3.3** shows that a number of key destinations are easily accessible by rail. This means that residents could be encouraged to use these services as part of their regular commuting journeys, in particularly for residents travelling into London. The proximity of the site to the station therefore presents an opportunity to reduce vehicle trips onto the local highway network. The availability of high frequency rail services will be promoted to future residents and incentives to travel by rail will be investigated.

3.34 In addition to the existing services available, Shenfield Station is currently undergoing a number of changes to facilitate the new Elizabeth Line services (during the construction stage known as 'Crossrail'). The station will become the eastern terminus of the 118km Crossrail route, providing fast services into central London and west towards Reading.

3.35 Since May 2015 Transport for London (TfL) has been operating the stopping services from Shenfield Station. New trains are being gradually introduced between Shenfield and Liverpool Street. From December 2019, when the route fully opens, passengers will be able to travel through central London without having to change trains. At peak times, Shenfield station will be served by 12 Elizabeth line trains an hour in each direction. Fast services into Liverpool Street will be unaffected by the introduction of the new Crossrail service.

Existing Local Travel Patterns

3.36 'Method of Travel to Work' data for resident population has been extracted from the 2011 Census from the website www.nomisweb.co.uk (supplied by the Office of National Statistics). The output for Brentwood 005F Super Output Area Lower Level (SOALL) where the site is located is presented in **Table 3.4.** Given that those working mainly from home and currently not in employment are not generating peak hour trips, the last column of the table reflects extrapolated mode share for commuting journeys.

Table 3.4: Census Data - Method of Travel to Work

Method of Travel to Work	People	% People	% Commuters
All categories: Method of travel to work	1,175	100%	
Work mainly at or from home	46	4%	n/a
Underground, metro, light rail, tram	14	1%	2%
Train	270	23%	35%
Bus, minibus or coach	5	0%	1%
Taxi	11	1%	1%
Motorcycle, scooter or moped	4	0%	1%
Driving a car or van	***377***	***32%***	***49%***
Passenger in a car or van	21	2%	3%
Bicycle	10	1%	1%
On foot	49	4%	6%
Other method of travel to work	1	0%	0%
Not in employment	367	31%	n/a

3.37 The travel to work information shows the residents of Brentwood 005F SOALL already commute to work sustainably with as many as 35% choosing train as the main travel mode. Private car accounts for less than 50% of commuting journeys in the area whilst walking and cycling account for 6% and 1% respectively.

3.38 A review of Census data for 'Location of usual residence and place of work by method of travel to work' has shown that majority (92%) of trips undertaken by railway are to London.

3.39 The majority of walking (95%) and cycling (75%) trips are contained within Brentwood. With regards to trips to work undertaken by car, the origin and destination data suggests that 34% are contained within Brentwood whist further 29% and 12% find the destination in London (with 11% trips terminating in London Borough of Havering) and Basildon respectively.

Section Summary

3.40 The site is in an accessible location for pedestrians, cyclists and by public transport that is close to a variety of existing local facilities.

3.41 An example of this is the existing journeys to work from the surrounding area to the railway station. The train is used for over a third (35%) of journeys to work and this is the main reason that car driver is relatively low at 49%.

4 TRANSPORT STRATEGY

4.1 This section outlines the key access and mobility opportunities associated with the site and details how the development will align with the requirements of the Policy R03 of the Emerging Regulation 19 Local Plan (2016-2033).

4.2 The inclusion of essential facilities such as the primary school and employment land use as part of the allocation will minimise the number of external trips that are generated by the development. The proximity of the site to existing facilities and in particular Shenfield Railway Station will provide excellent opportunities for travel by non-car means.

Site Allocation and Proposals

4.3 The Officer's Meadow site forms part of a wider allocation in the emerging Policy R03 'Land North of Shenfield'. This general access strategy identified how the Officer's Meadow site may be delivered with consideration of how this may link with the wider allocation.

4.4 The proposals for the site comprise around 510 dwellings and a 60-bedroom care home.

4.5 The remaining 315 dwellings allocated in Policy R03 would be delivered to the north of the site along with 2ha of employment land. The parcel of land north of Alexander Lane and existing Shenfield High School should be the location for a co-located primary school and early years and childcare provision.

4.6 The development will be designed to integrate with existing infrastructure to ensure connectivity to local facilities and suitable links between parcels under different land ownership. The provision of links to existing footways/ cycleways would also encourage sustainable travel to/ from the site for many trip purposes.

Internal Layout

4.7 A comprehensive Masterplan and development phasing strategy will be developed to align with requirements of the site specific Policy R03 and wider policy BE13: Sustainable Means of Travel and Walkable Streets.

4.8 Whilst the internal road layout is yet to be confirmed, this will be designed in accordance with local standards and have regard to principles outlined in Manual for Streets. As a result,

the internal road layout would be to the required standard for such a development with adequate space for refuse vehicles to travel through the site.

4.9 To ensure the internal links within the proposed development are safe and conducive to walking and cycling, these streets would be designed to a design speed of 20mph.

4.10 The provision of a new school immediately south of Officer's Meadow will ensure that trips associated with education travel can be achieved through walking and cycling, greatly minimising car trips. To achieve this, the internal layout will need to ensure direct footway and cycle connections to the school and to Alexander Lane for access to the High School.

4.11 The potential to implement a quiet lane across a section of Alexander Lane will also assist with linkages to the school.

4.12 A number of 'Green Links' are proposed within the site to connect to the existing PROW. This will ensure that the site is permeable, and that pedestrians and cyclists are provided with routes to travel into Shenfield town centre.

4.13 It should be noted that the PROW connects with Alexander Lane at a point where pedestrian facilities are provided. This would provide residents at the north of the site with a direct route through the site to Alexander Lane, and would therefore be used to encourage sustainable travel.

4.14 New and improved links though the site will provide pedestrians and cycle connections to the wider allocation site in this area. An internal vehicular route is not likely to be delivered due to the Ancient Woodland passing across the site, limiting opportunities to provide a full road connections.

Parking

4.15 Cycle and car parking provision for the residential units and for the primary school will be in line with the adopted Council's standards and taking into account local car ownership and ensuring the provision is made for visitors. Parking standards are referred in Policy BE17 of the emerging Local Plan which states that *"the Council will refer developers to the vehicle parking standards set out in the most up-to-date Essex Parking Standards."*

Site Access Strategy

4.16 The site access strategy is illustrated in **Figure 6**.

Vehicle Access

4.17 Due to the nature of Chelmsford Road, it is anticipated that the site access would be provided in the form of a roundabout. This would have the benefit of slowing vehicles, proving a suitable access to the Officer's Meadow site and maintaining through movements along Chelmsford Road.

4.18 A preliminary design has been prepared, as shown in Drawing 152050/A/01 presented at **Appendix A**.

4.19 The appropriateness of a roundabout is examined in further detail in **Section 6** of this Transport Strategy, where its capacity is assessed with consideration of existing flows along Chelmsford Road, growth associated with background and the wider site allocation, and the potential vehicle trips generated by Officer's Meadow.

4.20 It is considered that by providing two accesses to the site, traffic will distribute across both access points and ensure that there is good permeability to local routes. Two points of access are also promoted in the draft policy with the emerging Local Plan.

4.21 A second access from Alexander Lane, east of Shenfield High School can be provided. A number of options are available for access from Alexander Lane which may also facilitate the implementation of a Quiet Lane (closed to vehicles) for the section immediately east of the school.

4.22 Whilst a standard junction may be provided, a more probably solution would be the physical diversion and continuation of Alexander Lane in to the site. This would make access to the site more prominent and ensure the delivery of the wider Alexander Lane improvements.

4.23 Bollards located immediately west of the proposed access of Alexander Lane would prevent motorists from using the lane. The access onto Alexander Lane would therefore form a new link connected with the through route via the site and connecting with the A1023 Chelmsford Road.

4.24 The western section of Alexander Lane would be converted into a quiet lane for pedestrian and cyclists and would serve as an access road to the existing Shenfield High School and the new primary school that is proposed on site.

4.25 The site access strategy aligns with emerging Policy R03 which requires for the main point of access to be taken from the A1023 Chelmsford Road and Alexander Lane and provision of a quiet lane for pedestrians and cyclists.

4.26 The vehicular access arrangement can be delivered without impacting upon the access arrangement to the wider allocation site which will be taken from Chelmsford Road to the north. A vehicular connection within the site to the wider allocation land is not likely to be provided owing to constraints associated with Ancient Woodland.

Pedestrian/ Cycle Access

4.27 The internal layout of the site will incorporate a network of footways and cycleways providing access across the site and to key external links. Internal links leading directly to the proposed school and wider allocation site will ensure the wider site is accessible and reduce the number of external trips.

4.28 As part of the design of the Chelmsford Road access, shared-use footways/ cycleways are proposed on either side of the proposed access road. The shared-use facilities will provide a link to the existing footway on the southern side of Chelmsford Road.

4.29 For cyclists wishing to access the cycleway on the northern side of Chelmsford Road, crossing points are provided on either side of the roundabout on Chelmsford Road. The crossing comprises a refuge island to allow movements across the road in two parts. The cycleway on the northern side of Chelmsford Road would be improved and widened to 3.0 metres across the extent of the access works.

4.30 The design allows opportunities to provide a signalised crossing of Chelmsford Road within close proximity of the access. Dependent upon forecast demand and provision as part of the wider allocation, this additional crossing facility, which may be provided as a toucan traffic signal controlled crossing to enable use by cyclists and pedestrians, may be provided.

4.31 The provision of crossings on Chelmsford Road achieves a key transport element of the policy for the allocation site.

4.32 Pedestrian connections to Alexander Lane can be incorporated within the new access to the site. In diverting the road into the site, a continuation of the existing footway would be possible.

4.33 The new footway would provide a direct link for pedestrians accessing the town centre and would be particularly important in terms of enhancing access to Shenfield Railway Station.

4.34 The existing PROW 86 that runs across the site, connecting Chelmsford Road and the wider allocation site to Alexander Lane, presents an opportunity for improved pedestrian permeability. Improvements to the existing PROW is identified in the policy for the site.

4.35 For the northern section of the PROW that falls within the site, improvements to the facility which could include lighting, surfacing and widening can be delivered. To the south improvements can be delivered within the existing extents of the PROW.

4.36 The PROW provides and alternative route to Alexander Lane and towards the town centre and railways station, in addition to ensuring connections across the wider allocation site.

Wider Improvements

Pedestrian Links to Shenfield Railway Station

4.37 The site is located in close proximity to Shenfield railway station which will benefit from improved railway services and as such, presents major opportunities for future site residents. An improved pedestrian link to Shenfield Railway Station would be beneficial to ensure attractiveness of walking as a main mode of travel to the station. It would also enhance accessibility on foot to key destinations in Shenfield town centre.

4.38 Improvements to the link to the station and wider local facilities will help deliver the specific elements of Policy R03 for the site and the wider policies relating to walkable streets in Policy BE13.

4.39 The assessment of the link to Shenfield railway station is depicted in **Figure 7.**

4.40 A footway along Alexander Lane would tie in with the existing pedestrian infrastructure along Alexander Lane south.

4.41 Continuous footways are currently present along Oliver Road and Hunter Avenue however the junction does not provide dedicated crossing facilities. Improvements that could comprise installation of dropped kerbs and tactile pavements could offer benefit to pedestrians using this route.

4.42 Hunter Avenue is circa 550m long residential street that provides direct access to Shenfield Station car park. The route is generally lightly trafficked with direct residential frontage on both sides of the road. Continuous footway runs along the western side of Hunter Avenue at full length and along the eastern side for circa 390m, terminating adjacent to Shenfield Station Car Park (**Image 4.1**).

4.43 At this point, no crossing facilities are provided and pedestrians wishing to access direct route to the station are required to cross Hunter Avenue informally (**Image 4.2**). Provision of formalised crossing facilities at this location would offer increased attractiveness to pedestrians, therefore the contributions could be provided by the developer of the site.

Image 4.1: Footways along Hunter Avenue (view in a south direction)

Image 4.2: Access to a direct pedestrian route to Shenfield Station from Hunter Avenue

Access to the Railway Station

4.44 At the southern end of Hunter Avenue, there are two alternative routes to the railway station. The most direct link is provided across Hunters Avenue Car Park to the steps onto the A129 Hutton Road which has a local centre function. Puffin crossing located circa 65m south-west provides opportunities for pedestrians to safely cross the A129 and access Shenfield Railway Station.

4.45 The alternative access from Hunter Avenue to the station is signed as 'disabled access' and provides step-free route. This route follows Hunter Avenue for the further 85m from the Hunter Avenue Car Park and then uses a short section of the road used as an access to the car parking and rear servicing areas of commercial properties fronting the A129 Hutton Road. No dedicated pedestrian infrastructure is present along this road. This route connects with Puffin crossing opposite to the station access.

4.46 The IDP states that BCC/ ECC along with Abellio Greater Anglia who manage the station are currently liaising with the stakeholders to deliver major improvements to Shenfield Railway Station which will include improvements to public realm, accessibility and infrastructure improvements.

4.47 The railway station would also benefit from enhanced, covered and more secure and attractive cycle parking. The current provision is poor in quality and may discourage use. Demand is likely to increase with the development which is within easy walk and cycle distances of the station.

Bus Services

4.48 The site is located within 400m of the existing bus stops as shown in **Figure 5.** The bus stop facilities could be improved as part of the scheme proposals to provide timetable information, improved access (e.g. raised kerbs) and passenger shelters.

4.49 Emerging Policy R03 requires provision of improved bus service in the area to be delivered as part of proposals for Land North of Shenfield. Further Policy BE14: Sustainable Passenger Transport identifies the need for infrastructure improvements. The developer of the site north of Alexander Lane could provide financial contributions to local bus services or infrastructure improvements. This could be determined though subsequent planning application for the site.

4.50 The nature of Alexander Lane is such that the diversion of bus services through the site between Alexander Road and Chelmsford Road may not be attractive. Equally the provision of an internal loop road may not offer the most effective layout. The ability for residents to access existing stops and services within acceptable walk distances is key in this regard.

Travel Plan

4.51 A Travel Plan will be prepared to encourage travel to the site by sustainable modes.

4.52 The primary objective of the Travel Plan will be to set out a long-term strategy to facilitate and encourage modes of travel to the site by means other than the private car, which reflects current central and local government policy.

4.53 The strategy will be long term as changing travel habits takes time and will only occur through a combination of incentives, improved facilities, government initiatives and changes in individual attitudes.

4.54 The initiatives and measures will be a mixture of ‘hard’ and ‘soft’ measures.

4.55 Hard measures include the provision of facilities such as safe and secure cycle parking.

4.56 Soft measures include initiatives such as providing information on public transport services. This can be achieved through the provision of this information as part of the "Welcome Pack" given to new residents. It is considered that the location of the site in relation to Shenfield Rail Station and the town centre will enable an effective Travel Plan to be developed, which will include a number of incentives to promote sustainable travel.

4.57 The Travel Plan will be finalised and agreed prior to the occupation of the proposed development.

5 TRIP ASSESSMENT

5.1 In order to gain an understanding of the potential trips that may be associated with Officer's Meadow and the wider allocation site, a trip generation and attraction assessment has been undertaken. The assessment has been prepared to allow an initial analysis of the allocation site to be undertaken and will be refined in greater detail to account for elements such as the internalisation of trips, trip purpose and trips by all modes that would be presented as part of a full Transport Assessment.

Trip Generation

Residential

5.2 Total person trip rates have been derived from the TRICS database where the following criteria was applied, in order to derive representative trip rates for the site:

- Number of dwellings: 150 – 1,500;
- Location: Edge of Town Centre, Suburban Area and Edge of Town; and
- Weekday surveys only.

5.3 The trip rates derived, and the person trips generated by 510 dwellings during the morning and evening peak periods are presented in **Table 5.1** below. Full TRICS output reports are provided in **Appendix B.**

Table 5.1: Residential Person Trip Rates and Generation

	AM Peak (0800-0900)			PM Peak (1700-1800)		
	Arrive	**Depart**	**Total**	**Arrive**	**Depart**	**Total**
Trip Rate per dwelling	0.240	0.800	**1.040**	0.544	0.362	**0.906**
Trip Generation (510 dwellings)	122	408	**530**	277	185	**462**

5.4 The method of travel to work for local residents presented in **Table 3.4** has been applied to the person trips to provide an indication of movements across all travel modes.

5.5 The data suggests that a high proportion of residents currently travel to work by sustainable modes of travel, i.e. walking, cycling and public transport. Overall person trips by mode are summarised in **Table 5.2**.

Table 5.2: Residential Multi-modal Trip Generation

Method of Travel	% Mode Share	AM Peak (0800-0900)			PM Peak (1700-1800)		
		Arrive	Depart	Total	Arrive	Depart	Total
Car Driver	***49%***	***61***	***202***	***262***	***137***	***91***	***229***
Car Passenger	3%	3	11	15	8	5	13
Taxi	1%	2	6	8	4	3	7
Rail	35%	43	145	188	98	65	164
Underground	2%	2	7	10	5	3	8
Bus	1%	1	3	3	2	1	3
Motorcycle	1%	1	2	3	1	1	2
Walk	6%	8	26	34	18	12	30
Cycle	1%	2	5	7	4	2	6
TOTAL	**100%**	**122**	**408**	**530**	**277**	**185**	**462**

5.6 The results presented in **Table 5.2** show that the residential aspect of the proposed development may generate 262 two-way vehicle trips in the AM peak, and around 229 two-way vehicle trips in the PM peak. A large proportion of trips may be undertaken by rail, which is estimated to equate 188 to two-way trips in the AM peak and 164 two-way trips in the PM peak.

5.7 Furthermore, it is considered that with a robust Travel Plan in place and consideration of the wider Masterplan and travel initiatives that will be brought forward, the number of residents travelling by sustainable modes could be increased.

Care Home

5.8 Vehicle trip rates were derived from the TRICS database for 'care home' category and the following criteria was applied, in order to derive representative trip rates for the site:

- Number of bedrooms 17-180;
- Location: Edge of Town Centre, Suburban Area and Edge of Town; and
- Weekday surveys only.

5.9 The trip rates derived, and the vehicle trips that may be generated by a 60-bedroom care home are presented in **Table 5.3**.

Table 5.3: Care Home Vehicle Trip Rates and Generation

	AM Peak (0800-0900)			PM Peak (1700-1800)		
	Arrive	**Depart**	**Total**	**Arrive**	**Depart**	**Total**
Trip Rate (per bedroom)	0.074	0.063	**0.137**	0.053	0.060	**0.113**
Trip Generation (60-bed care home)	4	4	8	3	4	7

5.10 As shown in **Table 5.3**, the care home is forecast to generate low number of peak hour trips limited to 8 two-way AM peak trips and 7 two-way PM peak trips.

Wider Allocation

5.11 In addition to the Officer's Meadow site, the wider draft allocation includes provision of 2.0ha of employment land, provision of 2.1ha of land for a co-located primary school, including early years childcare, in addition to a further 315 dwellings. This section sets out trip generation and attraction of these uses.

Residential

5.12 In order to estimate vehicle trip generation associated with the 315 dwellings to be located within the wider draft allocation site, the calculated vehicle trips for 510 dwellings presented in **Table 5.2** have been used to calculated vehicle trip rates per unit and applied to the further 315 dwellings. The results are presented in **Table 5.4.**

Table 5.4: Vehicle trip generation for the further 315 dwellings

	AM Peak (0800-0900)			PM Peak (1700-1800)		
	Arrive	**Depart**	**Total**	**Arrive**	**Depart**	**Total**
Vehicle Trips (510 dwellings)	61	202	262	137	91	229
Vehicle Trip Rate (per dwelling)	0.119	0.396	0.515	0.269	0.179	0.448
Vehicle Trips (315 dwellings)	37	125	162	85	56	141

5.13 The vehicle trips in the above table were added as development traffic to assess the impact of the full allocation on the proposed site access.

Primary School

5.14 The emerging policy R03 requires provision of 2.1ha land for a co-located primary school and early years childcare nursery. The school could provide two-form entry to accommodate for the potential demand generated by the site.

5.15 As such the school would provide places for up to 420 pupils. The majority of pupils would come from the draft allocation site, however for the purposes of a robust assessment it has been assumed that up to 10% of pupils will travel from a wider area to attend the school.

5.16 In addition to pupils, it is expected that a number of staff will also reside externally. Again, for the purposes of this assessment and to be robust, it is assumed that all members of staff will be external to the site.

5.17 The Department for Education '*School Workforce in England: November 2013*' Statistical Release states that The Department for Education 'School Workforce in England: November 2013' Statistical Release states that *"half of school staff are teachers, with teaching assistants and non-classroom-based support staff each accounting for a quarter of school staff."* Based on this information, an estimate of the number of staff is provided below in **Table 5.5.**

Table 5.5: Primary School Full Time Equivalent (FTE) Employees

Pupils	
Total Pupils	**420**
Pupils per Class	30
Number of Classes	14
Staff	
Number of Teachers	14
Number of Teaching Assistants	7
Non-Classroom Based Staff	7
Total Staff	**28**

5.18 It has been assumed that 50% of staff arrive between 07:00 and 08:00, and 50% arrive in the morning peak period between 08:00 and 09:00. In the evening it is anticipated that 50% will depart outside of the network peak and 50% will depart in peak period between 17:00 and 18:00.

5.19 Pupils are anticipated to arrive between 08:00 and 09:00, and depart between 15:00 and 16:00, with a small proportion attending before and after school clubs, and therefore

travelling outside of these peaks. For the purposes of this assessment it has been assumed that 10% of the external pupils will attend a before school club and 10% attend an after-school club, and therefore generate trips in the network peak rather than the school peak.

5.20 To determine the number of vehicle trips generated by the school staff and external pupils, the mode split for the daytime population of Brentwood Workplace Zone E33026393 has been derived. This zone covers the area to the east of the site, which encompasses Long Ridings County Primary School and Poppetts Day Nursery, as well as an adult community college. This zone is therefore considered to provide a representative mode split for the proposed primary school.

5.21 The mode split is summarised in **Table 5.6**.

Table 5.6: Method of Travel to Work (Brentwood Workplace Zone E33026393)

Method of Travel	% Mode Share
Car Driver	68%
Car Passenger	5%
Taxi	1%
Rail & Underground	6%
Bus	1%
Motorcycle	0%
Walk	16%
Cycle	3%

5.22 It can be observed from the mode split presented in **Table 5.6** that up to 27% of existing employees travel by sustainable modes, i.e. walking, cycling and public transport. For the Transport Assessment, a more detailed analysis of pupil travel will be undertaken, to derive a more representative mode split as it is considered that the mode split presented in **Table 5.6** overestimate the number of pupils travelling by car.

5.23 The subsequent vehicle trips generated by both staff and pupils of the proposed primary school are summarised in **Table 5.7** below. It should be noted that pupils will produce both a vehicle arrival and departure in the AM peak, and again the school PM peak.

Table 5.7: Primary School Trip Generation (Vehicle Trips)

	AM Peak (0800-0900)			PM Peak (1700-1800)		
	Arrive	**Depart**	**Total**	**Arrive**	**Depart**	**Total**
Staff	9	0	9	0	9	9
Pupils	26	26	51	3	3	6
Total	**35**	**26**	**60**	**3**	**12**	**15**

5.24 The results in **Table 5.7** show that the primary school is likely to generate the most trips in the AM peak, as the majority of pupil trips will depart in the afternoon prior to 17:00.

Employment

5.25 In order to estimate the number of vehicle trips attracted by the employment land forming part of wider draft allocation, trip rates were derived for 'industrial estate' category using the TRICS database. Only sites located on the edge of town centre, suburban area and edge of town were considered representative. The resultant vehicle trip rates and attraction for 2.0ha of employment is presented in **Table 5.8.** The full report is provided in **Appendix B.**

Table 5.8: Employment land vehicle trip attraction

	AM Peak (0800-0900)			PM Peak (1700-1800)		
	Arrive	**Depart**	**Total**	**Arrive**	**Depart**	**Total**
Trip rate (per ha)	17.021	8.444	25.47	4.222	14.528	18.750
Vehicle Trips	34	17	51	8	29	38

5.26 As shown in **Table 5.8** above, 2.0ha of employment is forecast to attract 51 and 38 two-way trips in the AM and PM peak respectively.

Total Vehicle Trips

5.27 The total number of vehicle trips generated and attracted by the site is summarised in **Table** 5.9.

Table 5.9: Total Vehicle Trip Generation

Development		AM Peak (0800-0900)			PM Peak (1700-1800)		
		Arrive	Depart	Total	Arrive	Depart	Total
Officer's Meadow	Residential (510 dwellings)	61	202	262	137	91	229
	Care home (60-bed)	4	4	8	3	4	7
	TOTAL	***65***	***206***	***270***	***140***	***95***	***236***
Wider Land North of Shenfield Allocation	Residential (315 dwellings)	37	125	162	85	56	141
	Primary school	35	26	60	3	12	15
	Employment (2.0ha)	34	17	51	8	29	38
	TOTAL	***106***	***168***	***273***	***96***	***97***	***194***
Total Vehicle Trips (Whole Allocation)		**171**	**374**	**543**	**236**	**192**	**430**

5.28 As shown in **Table 5.9** above, a fully developed Officer's Meadow site may result in additional 270 two-way trips in the AM peak hour and 236 two-way trips in the PM peak hour.

5.29 Together with the wider draft allocation, total vehicle trip generation/ attraction may be expected to be 543 in the AM peak and 430 in the PM peak.

5.30 Subsequently, the trips summarised in **Table 5.9** trips have been distributed onto the local highway network in order to demonstrate the feasibility of the providing the proposed site access via the A1023 Chelmsford Road, and to provide an initial idea of the potential impact on the A12/ A1023 roundabout.

Trip Distribution

Residential Trips

5.31 A simple trip distribution assessment has been undertaken to identify where future residents of the site are likely to travel to. Census 2011 origin-destination data for residents of Brentwood 005 Middle Super Output Area (MSOA) has been obtained, showing where residents travel to work (WU03EW).

5.32 It should be noted that for the purposes of this Transport Strategy, only the data for vehicle drivers has been used in order to determine the distribution of vehicle trips. For the Transport Assessment, a more detailed distribution by mode will be prepared.

5.33 A summary of the results is presented in **Table 5.10**. It should be noted that those destinations accounting for less than 1% of trips have been removed, as they are not considered to be representative. The percentage distribution has then been extrapolated to total 100%.

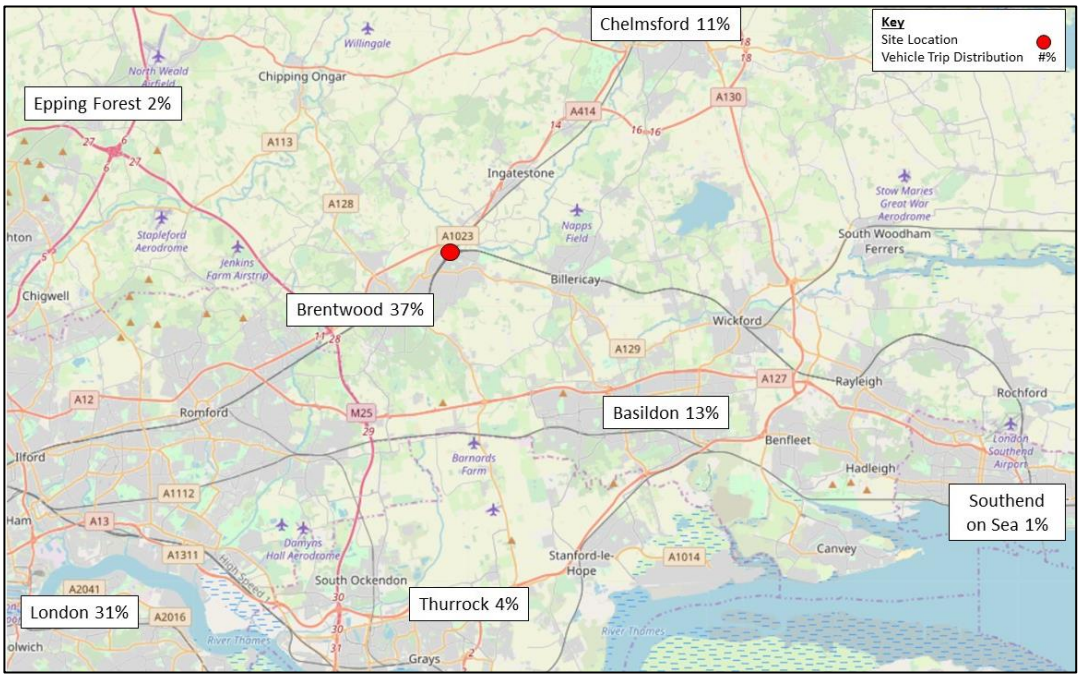
Table 5.10: Employment Destinations (Brentwood 005 MSOA Residents)

Destination	% Distribution	% Distribution (Extrapolated)
Brentwood	34%	37%
London	29%	31%
Basildon	12%	13%
Chelmsford	10%	11%
Thurrock	4%	4%
Epping Forest	2%	2%
Southend-on-Sea	1%	1%
Total	**92%**	**100%**

Note: Rounding errors may occur

5.34 It can be observed from **Table 5.10** that the majority of residents are employed within the borough, or travel to London, Basildon and Chelmsford. **Figure 5.1** below presents the site location in context of these destinations. It is also worth noting that within London the main destination accounting for two thirds of car trips are the London Boroughs of Havering, Barking and Dagenham and Redbridge.

Figure 5.1: Residential trip distribution



5.35 Given that the Officer's Meadow site is proposed to be served by two access points, a simple distribution was undertaken to determine likely routes used by the future site residents to reach their destination. The results are presented in **Table 5.11.**

Table 5.11: Residential trip distribution

Destination	Extrapolated Distribution	Routes		
		Alexander Lane South	A1023 Chelmsford Road South	A12 (North)
Brentwood	37%	7%	30%	
London	31%			31%
Basildon	13%	3%		10%
Chelmsford	11%			11%
Thurrock	4%	2%	2%	
Epping Forrest	2%			2%
Southend-on-Sea	1%	0%		0%
TOTAL	**100%**	**12%**	**32%**	**55%**

5.36 The distribution presented in the above table was used to assign residential development traffic to the proposed new 1023 Chelmsford Road junction. Traffic using Alexander Lane south of the site (12%) was therefore removed, 32% of residential trips were assigned to the A1023 south of the site and 55% would travel north towards junction 12 of A12.

5.37 It can be observed from **Table 5.11** that the majority of trips generated by the residential units in the AM and PM peaks are expected to turn right from the site access (northbound along the A1023) and subsequently return from this direction. The impacts of this will be explored in **Section 6** of this Transport Strategy.

5.38 The residential trip distribution was also used to assign traffic generated by proposed care home.

5.39 Traffic generated by the remaining parcels of the draft allocation site was assigned using proportions from **Table 5.11.** The distribution considers that access to these sites would be taken from the A1023 north of proposed roundabout junction.

Primary School

5.40 The new primary school would be served by a separate access from Alexander Lane. For the purpose of this assessment it was assumed that all vehicles arriving to the school would do so using the A1023 Chelmsford Road. Whilst detailed review of school catchment area will be undertaken as part of the Transport Assessment, for robustness, at this stage it has been assumed that 50% of the school traffic will arrive from the north and the remaining 50% would arrive from the south. As such, 50% of school traffic was added as an ahead movement to the proposed new site access roundabout. This assumption is considered roust to inform this Transport Strategy.

5.41 The potential impact of the distribution of residential and primary school trips will be discussed in **Section 6** of this Transport Strategy.

Employment

5.42 A detailed review of employment trips distribution will from part of the future Transport Assessment for the site north of Alexander Lane. At this stage, it was assumed that 50% of trips associated with the proposed light industrial uses north of the Officer's Meadow site would arrive from the direction of the A12. The remaining 50% would arrive from the direction of Brentwood and travel along the site boundary. This assumption is considered robust to inform this analysis and detailed review of potential origins for employment trips will be undertaken as part of a future Transport Assessment.

6 ACCESS CAPACITY ASSESSMENT

6.1 This section of the Transport Strategy provides an initial assessment of the proposed access arrangements. This will be developed in further detail as part of the Transport Assessment.

Chelmsford Road Access

6.2 As described previously, it is proposed to provide the primary site access from Chelmsford Road. The access is proposed to take the form of a 3-arm roundabout.

6.3 A preliminary design has been prepared, as shown in **Drawing 152050/A/01** presented at **Appendix A.**

6.4 The roundabout will provide two exit lanes on the A1023 both northbound and southbound. These will merge into one lane approximately 90m north of the roundabout and 130m south. The provision of two exit lanes will allow through traffic to flow more smoothly and reduce the potential for congestion.

6.5 The design has subsequently been tested in capacity terms, to determine whether the roundabout is an appropriate access option for the site.

6.6 A traffic survey of Chelmsford Road was undertaken by Advanced Transport Research between 20th and 27th of November 2018. The full survey results are available in **Appendix C.** The survey identified average weekday morning and evening peak flows on Chelmsford Road.

6.7 These flows were subsequently increased proportionally to the future year of 2033 using TEMPRO. It should be noted that 2033 was identified as the future year, as this represents the end of the Local Plan period.

6.8 The TEMPRO growth factors are shown below in **Table 6.1.**

Table 6.1: TEMPRO Growth Factors

Time Period	2018 – 2033
AM Peak	1.1348
PM Peak	1.1334

6.9 The 2018 and 2033 traffic flows along Chelmsford Road are summarised in **Table 5.2**.

Table 6.2: Existing (2018) and forecast future year Traffic Flows

Time Period	2018 Traffic Flows			2033 Traffic Flows		
	N-bound	S-bound	Two-Way	N-bound	S-bound	Two-Way
AM Peak (0800-0900)	674	1052	1726	765	1194	1959
PM Peak (1700-1800)	926	692	1618	1050	784	1834

6.10 The proposed access roundabout has been modelled with the 2033 base flows and the proposed development traffic using Junction 9. For the purposes of a robust assessment, it has been assumed that all development traffic will use this access.

6.11 Movements associated with the wider draft allocation site are also included in addition to those assumed through background growth. Whilst this may be and unlikely scenario, it provides a suitable early assessment to provide the viability of the site access.

6.12 The results of the model are summarised in **Table 6.3,** and the full Junctions 9 output is included at **Appendix D** for reference.

Table 6.3: Chelmsford Road access roundabout future year capacity results

Arm	AM Peak			PM Peak		
	Queue (veh)	Delay (s)	RFC	Queue (veh)	Delay (s)	RFC
A1023 North	3.9	10.12	0.80	1.2	4.54	0.55
Site Access	0.6	10.03	0.36	0.1	4.88	0.12
A1023 South	1.2	4.78	0.54	2.7	8.01	0.73

6.13 The results presented in **Table 6.3** show that the proposed site access will operate within capacity with 2033 Base traffic and the proposed development traffic.

6.14 Whilst a refined assessment will be required as part of a future Transport Assessment, the results indicate that the access may accommodate existing movements, those associated with the draft allocation at Land North of Shenfield and movements associated with the application of growth through to the end of the Local Plan period.

Alexander Lane

6.15 Alexander Lane would provide a secondary point of access to the site. Movements using this link would be low in number and comprise local movements and some to wider destinations such as Basildon.

6.16 The Local Plan identifies the possibility of closing the middle section of Alexander Lane within the proximity of the Officer's Meadow site to motorised vehicles, creating a quiet lane environment for pedestrians, cyclists and potentially equestrian use. Existing movements associated with the school from Chelmsford Road would be maintained. However through movements would need to be accommodated through alternative routes.

6.17 The provision of a quiet lane on Alexander Lane for the benefit of pedestrians and cyclists is supported by the transport strategy and development at Officer's Meadow. Further detailed work will be undertaken to assess the redistribution of traffic and ensure this is suitably accommodated.

Off-site Junctions

6.18 The Transport Assessment prepared by PBA for the Local Plan assesses a number of junctions within close proximity of the site. The report concludes that for the A12/ Chelmsford Road junction, suitable capacity is provided in the future year. As such no improvement may be necessary.

6.19 For junctions towards Shenfield and Brentwood, the Transport Assessment suggests that the Alexander Lane junction with Chelmsford Road will operate within capacity. Other junctions south of this are forecast to operate above capacity and some improvement measures are identified.

6.20 The future transport assessment for the site will consider the impact in greater detail. Where impacts are identified, a strategy for addressing those impacts through effective travel planning or infrastructure improvements consistent with the Local Plan will be proposed.

Phasing and Construction

6.21 The proposed housing will be developed in phases and at this stage no definitive phasing scheme has been identified.

6.22 Due to the nature of Alexander Road it is envisaged that large construction vehicles will travel to, and access the site, via the A1023 Chelmsford Road. However, the provision of more than one access means that there can be flexibility in how the phases move forward and it would be possible for development to be taking place in more than one location on the site. This flexibility helps with the overall deliverability of the site.

6.23 It is proposed that as the scheme is developed in more detail, a framework Construction Management Plan would be prepared to provide details on issues such as construction access and routes for construction vehicles.

6.24 The wider allocation site will require separate access points form Chelmsford Road. Due to the distances between these access points, it is considered that the Officer's Meadow site may be constructed simultaneously with other land holdings.

7 CONCLUSION

7.1 Development of the Officer's Meadow site would be supported by a sustainable transport strategy that reduces the need to travel and provides real opportunities for non-car travel for everyday journeys.

7.2 The proximity of the site to local services and delivery of additional opportunities such as the 'all-through' school across the wider site will reduce trip generation and promote sustainable communities.

7.3 The travel opportunities afforded by the excellent service at Shenfield Railway Station and proximity to local bus routes will ensure travel by public transport is a realistic option for future residents.

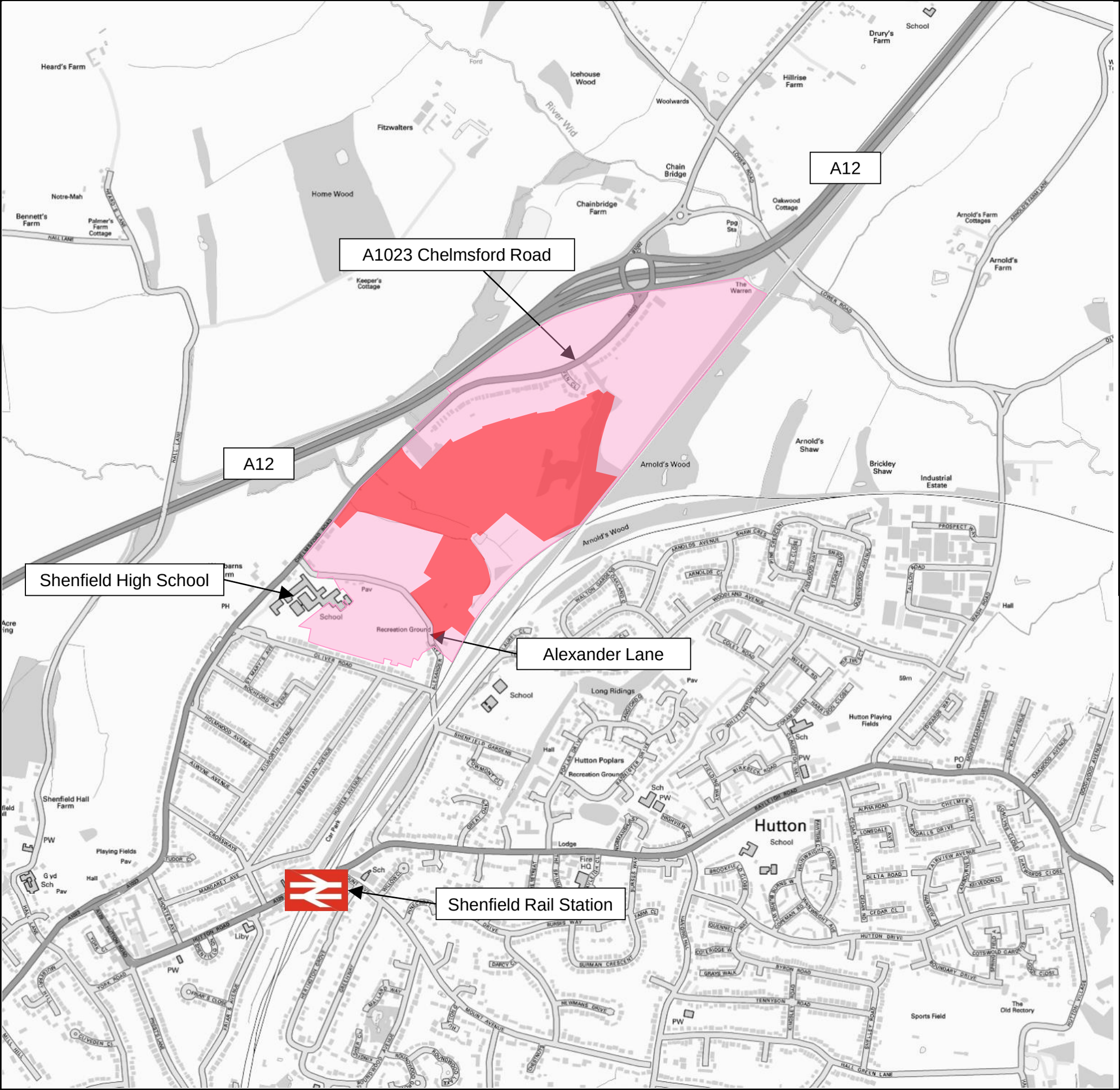
7.4 Access to the site will ensure vehicle movements are accommodated and wider improvements to pedestrian and cycle infrastructure, including Public Rights of Way will ensure active mobility is accommodated. Proposals for a quiet lane on Alexander Lane will also improve access to local schools.

7.5 The proposed transport strategy for the site and the wider allocation will deliver the aspirations as set out in the emerging Local Plan policies.

7.6 It can therefore be concluded that delivery of this transport strategy would allow development of the site with significant benefits for new residents and existing local residents

7.7 As such, there are no highways and transport related reasons why the Land North of Shenfield (Officer's Meadow site) should not be allocated within the emerging BBC Local Plan.

FIGURES



Key

Officer's Meadow Site

R02 Land North of Shenfield Draft Allocation

Croudace Strategic Limited

Officer's Meadow, Shenfield

Site Location Plan

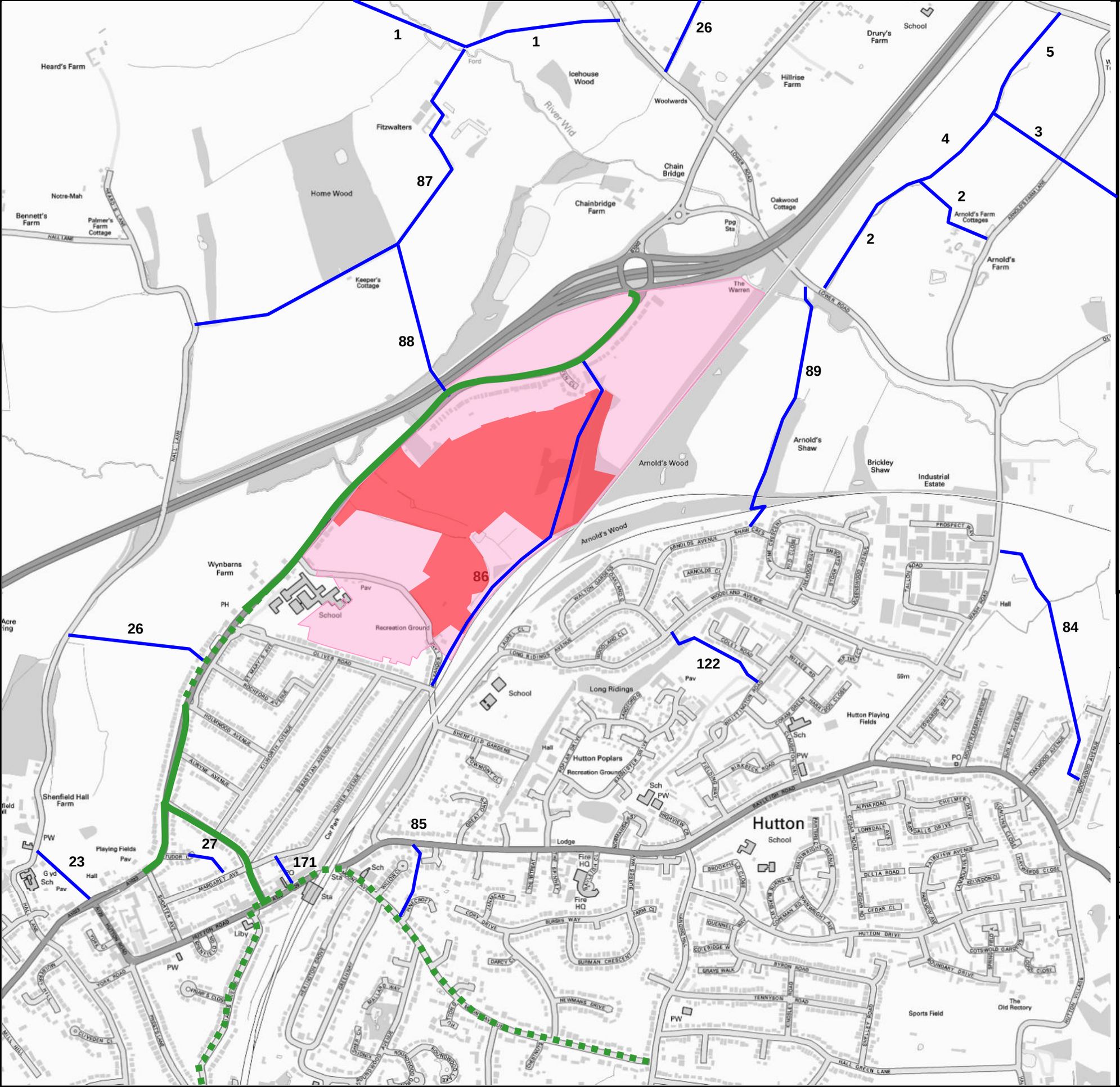
SCALES:			
NTS			
DRAWN: RB	CHECKED: DD	DATE: 19/02/19	REVISION: ·

vectos transport planning specialists

Network Building, 97 Tottenham Court Road, London W1T 4TP
Tel: 020 7580 7373 Email: london@vectos.co.uk www.vectos.co.uk

DRAWING REFERENCE:

Figure 1



Key

- Officer's Meadow site
- R03 Land North of Shenfield Draft Allocation
- Pubic Rights of Way
- Off Road Cycle Network
- On Road Cycle Network

Croudace Strategic Limited

Officer's Meadow, Shenfield

Public Rights of Way and Cycle Routes

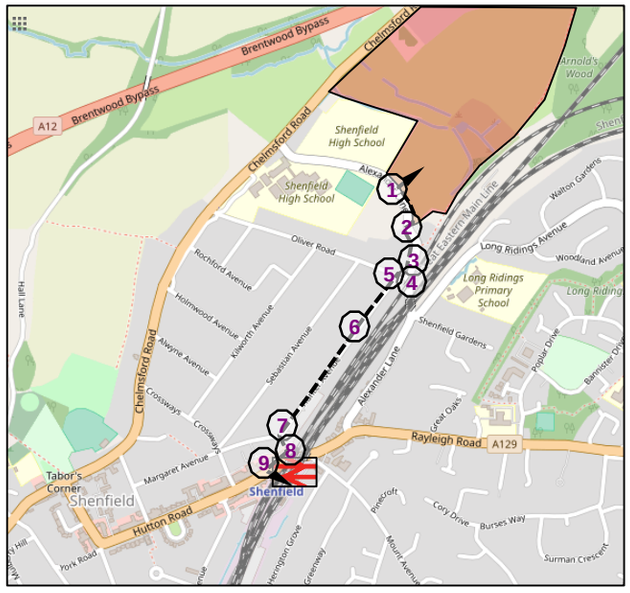
SCALES:			
NTS			
DRAWN: RB	CHECKED: DD	DATE: 19/02/19	REVISION: ·

vectos transport planning specialists

Network Building, 97 Tottenham Court Road, London W1T 4TP
Tel: 020 7580 7373 Email: london@vectos.co.uk www.vectos.co.uk

DRAWING REFERENCE:

Figure 2



Notes:

- No footways are currently provided along Alexander Lane west of the existing properties (**Image 1**);
- Continuous footway is provided along the southern side of Alexander Lane connecting it with footway along Oliver Road (**Image 2 and 3**);
- No crossing facilities are provide at the junctions of Alexander Lane/ Oliver Road (**Image 4**) and Oliver Road/ Hunter Avenue (**Image 5**);
- Footway runs along both sides of Hunter Avenue discontinuing adjacent to Shenfield Station Car Park on the eastern side (**Image 6**);
- No crossing facilities are provide at the access to the route via Shenfield Station Car Park from Hunter Avenue footway (**Image 7**);
- Direct route is provide from Hunter Avenue to Hutton Road via Shenfield Station car park via steps (**Image 8**);
- Puffin crossing is provided across Hutton Road directly opposite the station (**Image 9**)

Key:

Pedestrian route from the site to Shenfield railway station

PROJECT TITLE: Shenfield

CLIENT: Croudace Strategic Limited

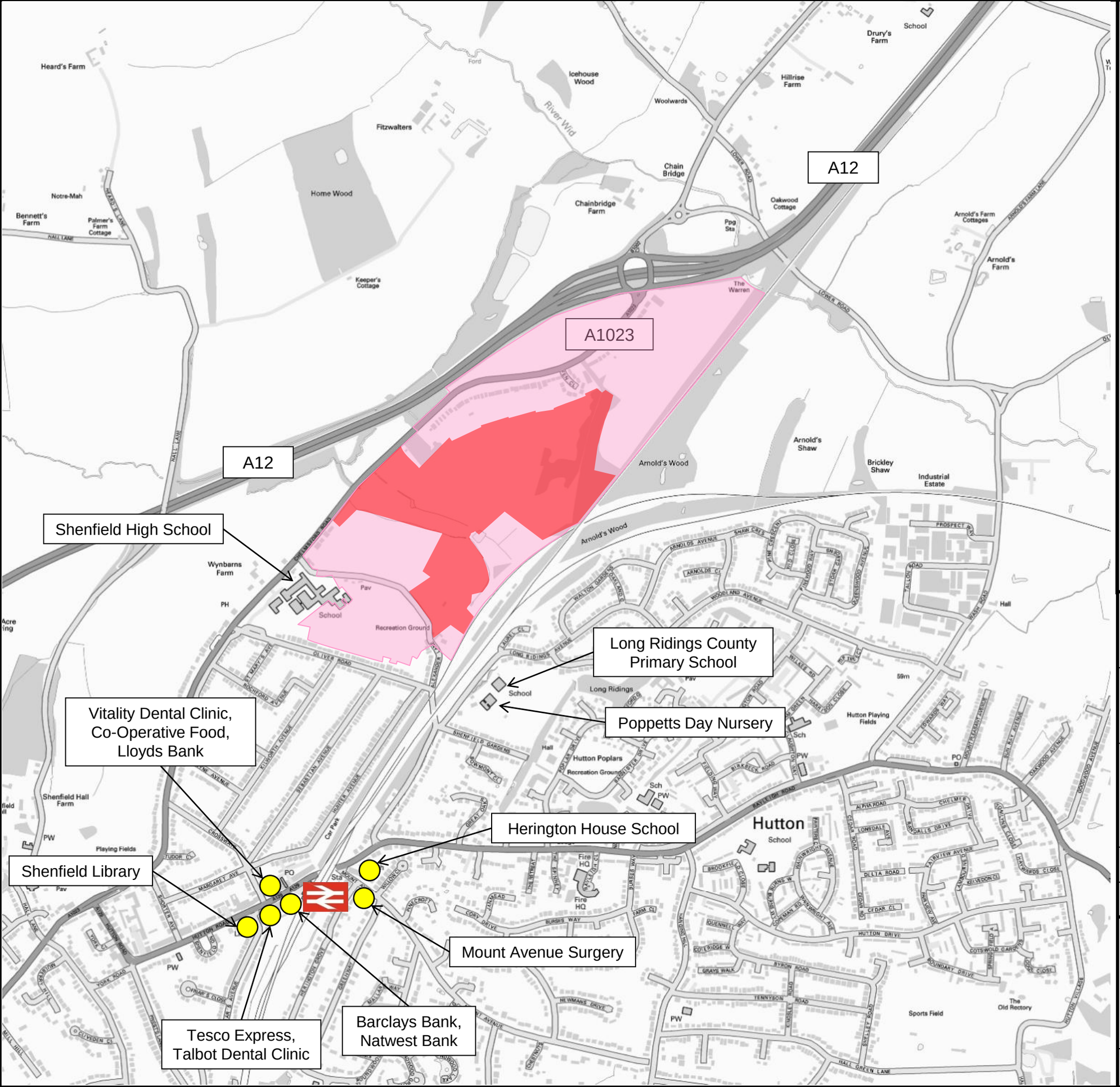
DRAWING TITLE:

Audit of Routes to Shenfield Railway Station

DRAWN:	CHECKED:	DATE:	SCALES:
DD	SM	08/03/2018	NTS

Network Building, 97 Tottenham Court Road, London W1T 4TP
Tel: 020 7580 7373 Email: london@vectos.co.uk www.vectos.co.uk

DRAWING REFERENCE: Figure 3



Key

- Officer's Meadow Site
- R03 Land North Of Shenfield Draft Allocation
- Key Local Facility

Croudace Strategic Limited

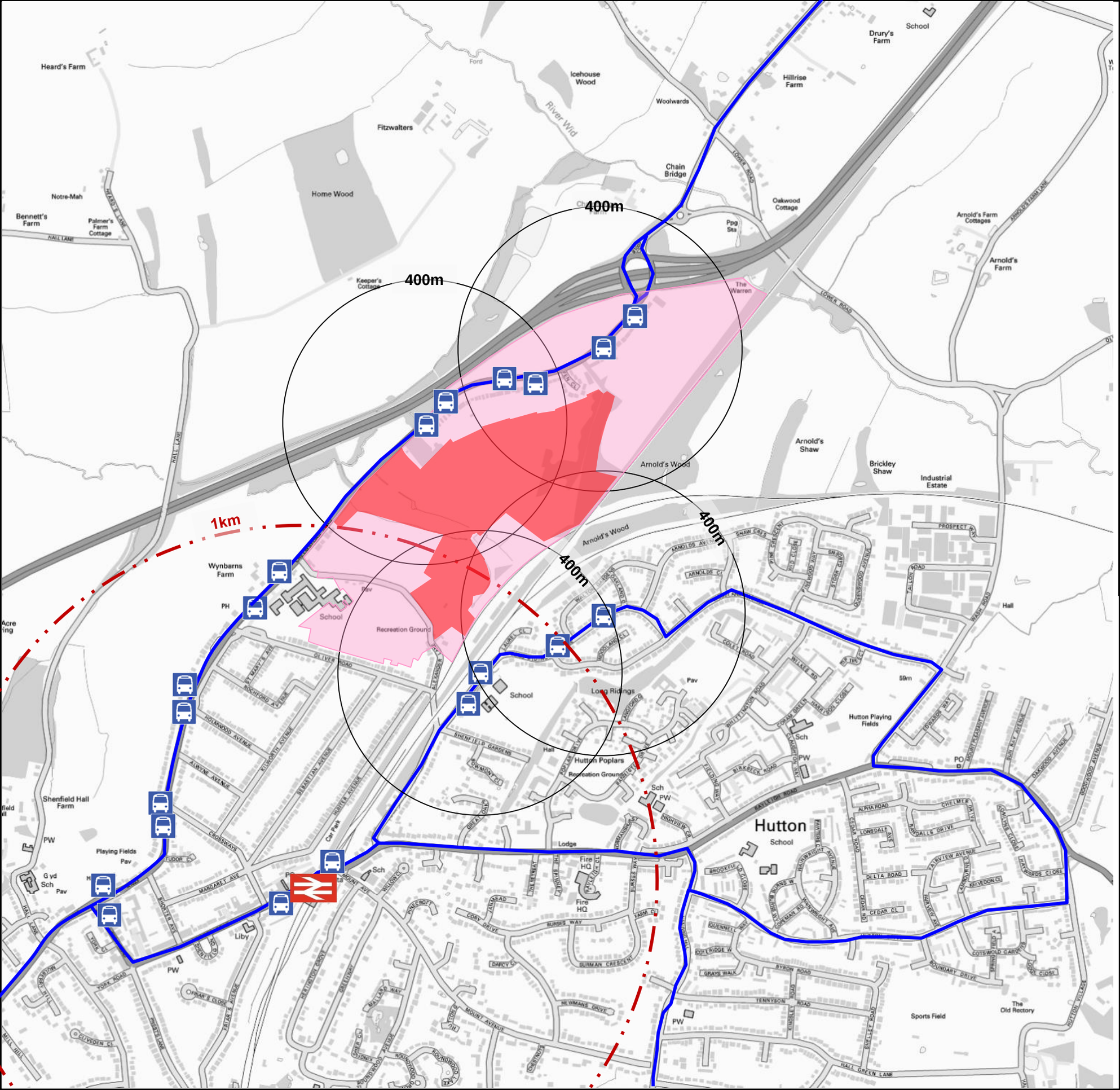
Officer's Meadow, Shenfield

Local Facilities Plan

SCALES:			
NTS			
DRAWN: RB	CHECKED: DD	DATE: 19/02/19	REVISION: ·

vectos transport planning specialists
Network Building, 97 Tottenham Court Road, London W1T 4TP
Tel: 020 7580 7373 Email: london@vectos.co.uk www.vectos.co.uk

DRAWING REFERENCE: Figure 4



Key

- Officer's Meadow Site
- R03 Land North of Shenfield Draft Allocation
- Bus Routes
- Shenfield railway Station
- Bus Stops

Croudace Strategic Limited

Officer's Meadow, Shenfield

Local Bus Routes Plan

SCALES:			
NTS			
DRAWN: RB	CHECKED: DD	DATE: 19/02/19	REVISION: ·

vectos transport planning specialists

Network Building, 97 Tottenham Court Road, London W1T 4TP
Tel: 020 7580 7373 Email: london@vectos.co.uk www.vectos.co.uk

DRAWING REFERENCE:

Figure 5

Site access to Chelmsford Road, potential new roundabout junction

Improvements to PROW

Crossing points for pedestrians/ cyclists to be incorporated within the new access junction

A1023

Access to new primary school to be taken from Alexander Lane

Though route via the site

New Access onto Alexander Lane

New footway on Alexander Lane to tie in with existing infrastructure

Potential for closure of Alexander Lane for through traffic using bollards.

Key

Officer's Meadow Site

R03 Land North of Shenfield Draft Allocation

Site Access

Croudace Strategic Limited

Officer's Meadow, Shenfield

Site Access Strategy

SCALES:			
NTS			
DRAWN:	CHECKED:	DATE:	REVISION:
DD	SM	19/02/19	·

vectos transport planning specialists

Network Building, 97 Tottenham Court Road, London W1T 4TP
Tel: 020 7580 7373 Email: london@vectos.co.uk www.vectos.co.uk

DRAWING REFERENCE:

Figure 6

Key

Officer's Meadow Site

R02 Land North of Shenfield Draft Allocation

Improvements to PROW

New footway to tie in with existing pedestrian facilities on Alexander Lane

Potential provision of formal crossing point

Improvements to facilities at Shenfield Station (improved wayfinding, step free access, upgraded cycle parking etc.) to be delivered by station operator. Developer to provide contributions

Potential improvements to the junction to incorporate formal crossing facilities, e. g tactile pavement and dropped kerbs

Croudace Strategic Limited

Officer's Meadow, Shenfield

Potential Links to Shenfield Station Improvements

SCALES:			
NTS			
DRAWN: RB	CHECKED: DD	DATE: 19/02/19	REVISION: ·

vectos transport planning specialists

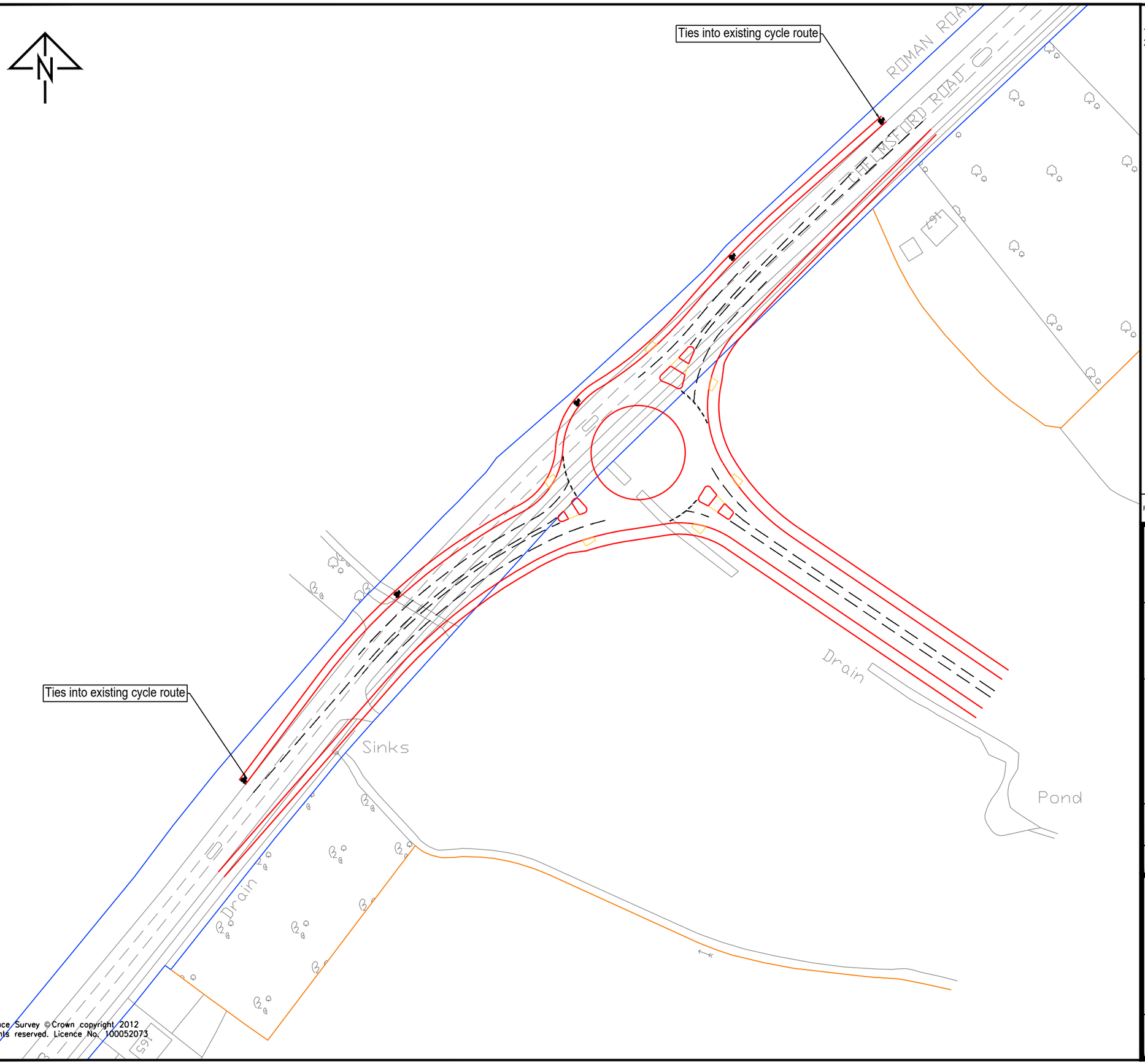
Network Building, 97 Tottenham Court Road, London W1T 4TP
Tel: 020 7580 7373 Email: london@vectos.co.uk www.vectos.co.uk

DRAWING REFERENCE:

Figure 7

APPENDIX A

Chelmsford Road Access Design



Notes:
1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.

Key

- Highway Boundary
- Red Line
- Proposed Tactile Paving

REV.	DETAILS	DRAWN	CHECKED	DATE
D	Proposed uncontrolled crossing added.	JB	GS	07/03/2019
C	Roundabout redesign to increase capacity, Red line added.	JM	GS	31/03/2016
B	Highway Boundary added	JM	GS	29/03/2016
A	2 lanes entry & exit main road arms	JM	GS	23/02/2016

CLIENT: Croudace

PROJECT: Shenfield

DRAWING TITLE: Proposed Site Access Roundabout

SCALES: 1:1000 at A3

DRAWN:	CHECKED:	DATE:
JM	GS	12/02/2016

vectos transport planning specialists
Network Building, 97 Tottenham Court Road, London W1T 4TP
t: 020 7580 7373 e: enquiries@vectos.co.uk

DRAWING NUMBER: 152080/A/01

REVISION: D

APPENDIX B

TRICS Output

Calculation Reference: AUDIT-152301-190306-0359

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	2 days
	EX	ESSEX	1 days
	KC	KENT	1 days
	WG	WOKINGHAM	1 days
03	SOUTH WEST		
	BR	BRISTOL CITY	2 days
	DV	DEVON	2 days
	WL	WILTSHIRE	1 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
	NF	NORFOLK	1 days
05	EAST MIDLANDS		
	NR	NORTHAMPTONSHIRE	1 days
06	WEST MIDLANDS		
	HE	HEREFORDSHIRE	1 days
	WM	WEST MIDLANDS	2 days
	WO	WORCESTERSHIRE	2 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	WY	WEST YORKSHIRE	5 days
08	NORTH WEST		
	GM	GREATER MANCHESTER	1 days
	LC	LANCASHIRE	3 days
09	NORTH		
	TW	TYNE & WEAR	2 days

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

Secondary Filtering selection:

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

Parameter: Site area
Actual Range: 0.27 to 6.60 (units: hect)
Range Selected by User: 0.27 to 52.00 (units: hect)

Parking Spaces Range: Selected: 18 to 1800 Actual: 18 to 1800

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 28/11/17

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

Selected survey days:

Monday	6 days
Tuesday	9 days
Wednesday	2 days
Thursday	5 days
Friday	7 days

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

Selected survey types:

Manual count	29 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)	12
Edge of Town	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.

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:

Not Known	1 days
B1	10 days
B2	15 days
B8	1 days

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

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	1 days
5,001 to 10,000	6 days
10,001 to 15,000	1 days
15,001 to 20,000	5 days
20,001 to 25,000	4 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:

25,001 to 50,000	3 days
50,001 to 75,000	1 days
75,001 to 100,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	15 days
250,001 to 500,000	6 days
500,001 or More	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	14 days
1.1 to 1.5	12 days
1.6 to 2.0	3 days

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

Travel Plan:

No	29 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	29 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 Site area: 1.80 hect
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 Site area: 4.48 hect
Survey date: FRIDAY *29/11/13* *Survey Type: MANUAL*

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

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Site area: 0.89 hect
Survey date: TUESDAY *02/12/14* *Survey Type: MANUAL*

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

Edge of Town
Industrial Zone
Total Site area: 0.59 hect
Survey date: TUESDAY *17/07/12* *Survey Type: MANUAL*

5 DV-02-D-07 INDUSTRIAL ESTATE DEVON
BITTERN ROAD
EXETER
SOWTON IND. ESTATE
Edge of Town
Industrial Zone
Total Site area: 0.95 hect
Survey date: MONDAY *03/07/17* *Survey Type: MANUAL*

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

Edge of Town
Residential Zone
Total Site area: 2.30 hect
Survey date: MONDAY *21/10/13* *Survey Type: MANUAL*

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

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Site area: 1.10 hect
Survey date: THURSDAY *16/10/14* *Survey Type: MANUAL*

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

Edge of Town Centre
Residential Zone
Total Site area: 2.05 hect
Survey date: FRIDAY *08/07/16* *Survey Type: MANUAL*

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

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Site area: 1.20 hect
Survey date: THURSDAY *22/10/15* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

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

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Site area: 0.50 hect
Survey date: TUESDAY *22/10/13* *Survey Type: MANUAL*

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

Edge of Town
Residential Zone
Total Site area: 3.54 hect
Survey date: WEDNESDAY *28/11/12* *Survey Type: MANUAL*

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

Edge of Town Centre
Industrial Zone
Total Site area: 0.70 hect
Survey date: TUESDAY *04/06/13* *Survey Type: MANUAL*

13 LC-02-D-06 INDUSTRIAL ESTATE LANCASHIRE
SMALLSHAW LANE
BURNLEY

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Site area: 2.41 hect
Survey date: THURSDAY *29/09/16* *Survey Type: MANUAL*

14 LC-02-D-07 INDUSTRIAL ESTATE LANCASHIRE
CHAIN CAUL WAY
PRESTON
ASHTON-ON-RIBBLE
Edge of Town
Industrial Zone
Total Site area: 0.80 hect
Survey date: FRIDAY *17/11/17* *Survey Type: MANUAL*

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

Edge of Town
Residential Zone
Total Site area: 1.60 hect
Survey date: MONDAY *08/10/12* *Survey Type: MANUAL*

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

Edge of Town
Industrial Zone
Total Site area: 6.60 hect
Survey date: THURSDAY *23/10/14* *Survey Type: MANUAL*

17 TW-02-D-07 INDUSTRIAL ESTATE TYNE & WEAR
SWALWELL BANK
GATESHEAD
WHICKHAM
Edge of Town
Residential Zone
Total Site area: 2.10 hect
Survey date: FRIDAY *04/10/13* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

18 TW-02-D-08 INDUSTRIAL ESTATE TYNE & WEAR
NORTH HYLTON ROAD
SUNDERLAND
SOUTHWICK
Suburban Area (PPS6 Out of Centre)
Development Zone
Total Site area: 2.70 hect
Survey date: TUESDAY *04/04/17* *Survey Type: MANUAL*

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

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Site area: 0.79 hect
Survey date: TUESDAY *20/11/12* *Survey Type: MANUAL*

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

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Site area: 2.55 hect
Survey date: TUESDAY *20/09/16* *Survey Type: MANUAL*

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

Edge of Town
Residential Zone
Total Site area: 5.09 hect
Survey date: WEDNESDAY *07/11/12* *Survey Type: MANUAL*

22 WM-02-D-03 INDUSTRIAL ESTATE WEST MIDLANDS
JUNCTION ROAD
STOURBRIDGE
AUDNAM
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Site area: 0.27 hect
Survey date: TUESDAY *28/11/17* *Survey Type: MANUAL*

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

Edge of Town
Commercial Zone
Total Site area: 0.35 hect
Survey date: FRIDAY *23/05/14* *Survey Type: MANUAL*

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

Edge of Town
Residential Zone
Total Site area: 3.00 hect
Survey date: MONDAY *14/11/16* *Survey Type: MANUAL*

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

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Site area: 6.08 hect
Survey date: FRIDAY *20/09/13* *Survey Type: MANUAL*

26 WY-02-D-04 INDUSTRIAL ESTATE WEST YORKSHIRE
LAW STREET
CLECKHEATON

Edge of Town
Industrial Zone
Total Site area: 2.32 hect
Survey date: THURSDAY *15/09/16* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

27	WY-02-D-05 CARR WOOD ROAD CASTLEFORD	INDUSTRIAL ESTATE		WEST YORKSHIRE
	Edge of Town Development Zone Total Site area:		0.50 hect	
	Survey date: MONDAY		*22/05/17*	*Survey Type: MANUAL*
28	WY-02-D-06 PIONEER WAY CASTLEFORD	INDUSTRIAL ESTATE (PART)		WEST YORKSHIRE
	Edge of Town Industrial Zone Total Site area:		2.20 hect	
	Survey date: TUESDAY		*23/05/17*	*Survey Type: MANUAL*
29	WY-02-D-07 THUNDERHEAD RIDGE RD CASTLEFORD GLASSHOUGHTON	INDUSTRIAL ESTATE		WEST YORKSHIRE
	Edge of Town No Sub Category Total Site area:		0.70 hect	
	Survey date: MONDAY		*15/05/17*	*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
VEHICLES
Calculation factor: 1 hect
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	29	2.07	14.495	29	2.07	3.557	29	2.07	18.052
08:00 - 09:00	29	2.07	17.021	29	2.07	8.444	29	2.07	25.465
09:00 - 10:00	29	2.07	12.566	29	2.07	9.724	29	2.07	22.290
10:00 - 11:00	29	2.07	10.755	29	2.07	10.007	29	2.07	20.762
11:00 - 12:00	29	2.07	10.721	29	2.07	10.655	29	2.07	21.376
12:00 - 13:00	29	2.07	12.201	29	2.07	12.483	29	2.07	24.684
13:00 - 14:00	29	2.07	12.317	29	2.07	11.702	29	2.07	24.019
14:00 - 15:00	29	2.07	10.638	29	2.07	11.004	29	2.07	21.642
15:00 - 16:00	29	2.07	9.225	29	2.07	12.666	29	2.07	21.891
16:00 - 17:00	29	2.07	7.281	29	2.07	15.043	29	2.07	22.324
17:00 - 18:00	29	2.07	4.222	29	2.07	14.528	29	2.07	18.750
18:00 - 19:00	29	2.07	2.061	29	2.07	4.854	29	2.07	6.915
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			123.503			124.667			248.170

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:	0.27 to 6.60 (units: hect)
Survey date date range:	01/01/10 - 28/11/17
Number of weekdays (Monday-Friday):	29
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/D - INDUSTRIAL ESTATE
TAXIS
Calculation factor: 1 hect
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	29	2.07	0.017	29	2.07	0.017	29	2.07	0.034
08:00 - 09:00	29	2.07	0.083	29	2.07	0.066	29	2.07	0.149
09:00 - 10:00	29	2.07	0.050	29	2.07	0.033	29	2.07	0.083
10:00 - 11:00	29	2.07	0.017	29	2.07	0.017	29	2.07	0.034
11:00 - 12:00	29	2.07	0.050	29	2.07	0.050	29	2.07	0.100
12:00 - 13:00	29	2.07	0.000	29	2.07	0.000	29	2.07	0.000
13:00 - 14:00	29	2.07	0.066	29	2.07	0.033	29	2.07	0.099
14:00 - 15:00	29	2.07	0.017	29	2.07	0.033	29	2.07	0.050
15:00 - 16:00	29	2.07	0.050	29	2.07	0.050	29	2.07	0.100
16:00 - 17:00	29	2.07	0.017	29	2.07	0.017	29	2.07	0.034
17:00 - 18:00	29	2.07	0.050	29	2.07	0.066	29	2.07	0.116
18:00 - 19:00	29	2.07	0.017	29	2.07	0.017	29	2.07	0.034
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.434			0.399			0.833

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: 1 hect
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	29	2.07	0.615	29	2.07	0.416	29	2.07	1.031
08:00 - 09:00	29	2.07	0.814	29	2.07	1.064	29	2.07	1.878
09:00 - 10:00	29	2.07	1.114	29	2.07	1.213	29	2.07	2.327
10:00 - 11:00	29	2.07	0.864	29	2.07	0.947	29	2.07	1.811
11:00 - 12:00	29	2.07	0.864	29	2.07	0.848	29	2.07	1.712
12:00 - 13:00	29	2.07	1.197	29	2.07	0.981	29	2.07	2.178
13:00 - 14:00	29	2.07	1.014	29	2.07	0.765	29	2.07	1.779
14:00 - 15:00	29	2.07	0.715	29	2.07	0.898	29	2.07	1.613
15:00 - 16:00	29	2.07	0.981	29	2.07	0.881	29	2.07	1.862
16:00 - 17:00	29	2.07	0.532	29	2.07	0.648	29	2.07	1.180
17:00 - 18:00	29	2.07	0.382	29	2.07	0.482	29	2.07	0.864
18:00 - 19:00	29	2.07	0.183	29	2.07	0.199	29	2.07	0.382
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			9.275			9.342			18.617

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: 1 hect
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	29	2.07	0.033	29	2.07	0.100	29	2.07	0.133
08:00 - 09:00	29	2.07	0.133	29	2.07	0.100	29	2.07	0.233
09:00 - 10:00	29	2.07	0.116	29	2.07	0.100	29	2.07	0.216
10:00 - 11:00	29	2.07	0.083	29	2.07	0.050	29	2.07	0.133
11:00 - 12:00	29	2.07	0.050	29	2.07	0.033	29	2.07	0.083
12:00 - 13:00	29	2.07	0.033	29	2.07	0.033	29	2.07	0.066
13:00 - 14:00	29	2.07	0.000	29	2.07	0.017	29	2.07	0.017
14:00 - 15:00	29	2.07	0.066	29	2.07	0.100	29	2.07	0.166
15:00 - 16:00	29	2.07	0.033	29	2.07	0.050	29	2.07	0.083
16:00 - 17:00	29	2.07	0.066	29	2.07	0.000	29	2.07	0.066
17:00 - 18:00	29	2.07	0.000	29	2.07	0.017	29	2.07	0.017
18:00 - 19:00	29	2.07	0.050	29	2.07	0.000	29	2.07	0.050
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.663			0.600			1.263

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: 1 hect
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	29	2.07	0.399	29	2.07	0.033	29	2.07	0.432
08:00 - 09:00	29	2.07	0.332	29	2.07	0.100	29	2.07	0.432
09:00 - 10:00	29	2.07	0.166	29	2.07	0.033	29	2.07	0.199
10:00 - 11:00	29	2.07	0.133	29	2.07	0.083	29	2.07	0.216
11:00 - 12:00	29	2.07	0.000	29	2.07	0.017	29	2.07	0.017
12:00 - 13:00	29	2.07	0.050	29	2.07	0.066	29	2.07	0.116
13:00 - 14:00	29	2.07	0.100	29	2.07	0.050	29	2.07	0.150
14:00 - 15:00	29	2.07	0.083	29	2.07	0.050	29	2.07	0.133
15:00 - 16:00	29	2.07	0.083	29	2.07	0.150	29	2.07	0.233
16:00 - 17:00	29	2.07	0.083	29	2.07	0.382	29	2.07	0.465
17:00 - 18:00	29	2.07	0.083	29	2.07	0.499	29	2.07	0.582
18:00 - 19:00	29	2.07	0.017	29	2.07	0.133	29	2.07	0.150
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.529			1.596			3.125

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

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

Calculation Reference: AUDIT-152301-190306-0311

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 05 - HEALTH
Category : F - CARE HOME (ELDERLY RESIDENTIAL)
VEHICLES

Selected regions and areas:

01	GREATER LONDON		
	EN	ENFIELD	1 days
02	SOUTH EAST		
	ES	EAST SUSSEX	1 days
	EX	ESSEX	1 days
	HC	HAMPSHIRE	1 days
	HF	HERTFORDSHIRE	1 days
	WG	WOKINGHAM	1 days
04	EAST ANGLIA		
	SF	SUFFOLK	1 days
05	EAST MIDLANDS		
	DS	DERBYSHIRE	1 days
	NT	NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS		
	WK	WARWICKSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	WY	WEST YORKSHIRE	1 days
08	NORTH WEST		
	GM	GREATER MANCHESTER	1 days
	LC	LANCASHIRE	1 days
10	WALES		
	SW	SWANSEA	1 days
11	SCOTLAND		
	SR	STIRLING	1 days
12	CONNAUGHT		
	CS	SLIGO	1 days

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

Secondary Filtering selection:

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

Parameter: Number of residents
Actual Range: 17 to 99 (units:)
Range Selected by User: 16 to 180 (units:)

Parking Spaces Range: Selected: 3 to 150 Actual: 3 to 150

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 05/09/17

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

Selected survey days:

Monday	2 days
Tuesday	6 days
Wednesday	4 days
Thursday	3 days
Friday	1 days

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

Selected survey types:

Manual count	16 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	5
Suburban Area (PPS6 Out of Centre)	5
Edge of Town	6

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.

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:

C2	16 days

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

Population within 1 mile:

1,000 or Less	1 days
5,001 to 10,000	4 days
10,001 to 15,000	1 days
15,001 to 20,000	3 days
20,001 to 25,000	2 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
25,001 to 50,000	1 days
50,001 to 75,000	2 days
75,001 to 100,000	1 days
125,001 to 250,000	5 days
250,001 to 500,000	4 days
500,001 or More	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	6 days
1.1 to 1.5	9 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:

No	16 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	16 days

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

LIST OF SITES relevant to selection parameters

1 CS-05-F-01 NURSING HOME SLIGO
CHURCH HILL
SLIGO

Edge of Town
Residential Zone
Total Number of residents: 99
Survey date: MONDAY *27/04/15* *Survey Type: MANUAL*

2 DS-05-F-01 NURSING HOME DERBYSHIRE
29 VILLAGE STREET
DERBY

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of residents: 70
Survey date: TUESDAY *21/10/14* *Survey Type: MANUAL*

3 EN-05-F-02 CARE HOME ENFIELD
CLAY HILL
ENFIELD

Edge of Town
Out of Town
Total Number of residents: 60
Survey date: THURSDAY *17/11/16* *Survey Type: MANUAL*

4 ES-05-F-02 CARE HOME EAST SUSSEX
BATTLE ROAD
HAILSHAM

Edge of Town Centre
Residential Zone
Total Number of residents: 69
Survey date: WEDNESDAY *13/07/16* *Survey Type: MANUAL*

5 EX-05-F-01 NURSING HOME ESSEX
WINSTON AVENUE
SOUTHEND-ON-SEA
WESTCLIFF
Edge of Town Centre
Residential Zone
Total Number of residents: 17
Survey date: THURSDAY *24/10/13* *Survey Type: MANUAL*

6 GM-05-F-03 NURSING HOME GREATER MANCHESTER
HALIFAX ROAD
ROCHDALE

Edge of Town
Residential Zone
Total Number of residents: 30
Survey date: WEDNESDAY *29/05/13* *Survey Type: MANUAL*

7 HC-05-F-01 CARE HOME HAMPSHIRE
BOTLEY ROAD
SOUTHAMPTON

Edge of Town
No Sub Category
Total Number of residents: 42
Survey date: TUESDAY *24/11/15* *Survey Type: MANUAL*

8 HF-05-F-02 NURSING HOME HERTFORDSHIRE
BEACONSFIELD ROAD
ST ALBANS

Edge of Town Centre
No Sub Category
Total Number of residents: 25
Survey date: TUESDAY *01/10/13* *Survey Type: MANUAL*

9 LC-05-F-02 NURSING HOME LANCASHIRE
LYTHAM ROAD
BLACKPOOL
SQUIRES GATE
Edge of Town
Residential Zone
Total Number of residents: 31
Survey date: TUESDAY *27/09/16* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

10	NT-05-F-02 MOOR LANE NEAR NOTTINGHAM BINGHAM Edge of Town Centre No Sub Category Total Number of residents:	NURSING HOME	34	NOTTINGHAMSHIRE
	Survey date: MONDAY		*14/11/16*	*Survey Type: MANUAL*
11	SF-05-F-01 COLCHESTER ROAD IPSWICH Edge of Town Residential Zone Total Number of residents:	CARE HOME	17	SUFFOLK
	Survey date: FRIDAY		*18/09/15*	*Survey Type: MANUAL*
12	SR-05-F-01 PERTH ROAD DUNBLANE Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of residents:	NURSING HOME	60	STIRLING
	Survey date: WEDNESDAY		*18/06/14*	*Survey Type: MANUAL*
13	SW-05-F-01 ST HELENS ROAD SWANSEA Edge of Town Centre No Sub Category Total Number of residents:	NURSING HOME	78	SWANSEA
	Survey date: WEDNESDAY		*11/12/13*	*Survey Type: MANUAL*
14	WG-05-F-01 BARKHAM ROAD WOKINGHAM Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of residents:	NURSING HOME	58	WOKINGHAM
	Survey date: TUESDAY		*20/11/12*	*Survey Type: MANUAL*
15	WK-05-F-01 CLARENDON SQUARE LEAMINGTON SPA Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of residents:	NURSING HOME	32	WARWICKSHIRE
	Survey date: THURSDAY		*25/10/12*	*Survey Type: MANUAL*
16	WY-05-F-01 CLIFF ROAD LEEDS HYDE PARK Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of residents:	NURSING HOME	58	WEST YORKSHIRE
	Survey date: TUESDAY		*15/06/10*	*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 05 - HEALTH/F - CARE HOME (ELDERLY RESIDENTIAL)
VEHICLES
Calculation factor: 1 RESIDE
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	16	49	0.132	16	49	0.063	16	49	0.195
08:00 - 09:00	16	49	0.074	16	49	0.063	16	49	0.137
09:00 - 10:00	16	49	0.095	16	49	0.044	16	49	0.139
10:00 - 11:00	16	49	0.095	16	49	0.069	16	49	0.164
11:00 - 12:00	16	49	0.091	16	49	0.085	16	49	0.176
12:00 - 13:00	16	49	0.081	16	49	0.076	16	49	0.157
13:00 - 14:00	16	49	0.124	16	49	0.108	16	49	0.232
14:00 - 15:00	16	49	0.123	16	49	0.132	16	49	0.255
15:00 - 16:00	16	49	0.088	16	49	0.122	16	49	0.210
16:00 - 17:00	16	49	0.063	16	49	0.122	16	49	0.185
17:00 - 18:00	16	49	0.053	16	49	0.104	16	49	0.157
18:00 - 19:00	16	49	0.053	16	49	0.060	16	49	0.113
19:00 - 20:00	15	45	0.044	15	45	0.056	15	45	0.100
20:00 - 21:00	15	45	0.034	15	45	0.044	15	45	0.078
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.150			1.148			2.298

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:	17 - 99 (units:)
Survey date date range:	01/01/10 - 05/09/17
Number of weekdays (Monday-Friday):	16
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are 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 05 - HEALTH/F - CARE HOME (ELDERLY RESIDENTIAL)
TAXIS
Calculation factor: 1 RESIDE
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	16	49	0.004	16	49	0.004	16	49	0.008
08:00 - 09:00	16	49	0.001	16	49	0.001	16	49	0.002
09:00 - 10:00	16	49	0.004	16	49	0.004	16	49	0.008
10:00 - 11:00	16	49	0.001	16	49	0.000	16	49	0.001
11:00 - 12:00	16	49	0.003	16	49	0.004	16	49	0.007
12:00 - 13:00	16	49	0.004	16	49	0.003	16	49	0.007
13:00 - 14:00	16	49	0.005	16	49	0.006	16	49	0.011
14:00 - 15:00	16	49	0.009	16	49	0.008	16	49	0.017
15:00 - 16:00	16	49	0.003	16	49	0.004	16	49	0.007
16:00 - 17:00	16	49	0.003	16	49	0.003	16	49	0.006
17:00 - 18:00	16	49	0.003	16	49	0.003	16	49	0.006
18:00 - 19:00	16	49	0.001	16	49	0.001	16	49	0.002
19:00 - 20:00	15	45	0.003	15	45	0.003	15	45	0.006
20:00 - 21:00	15	45	0.000	15	45	0.000	15	45	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.044			0.044			0.088

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 05 - HEALTH/F - CARE HOME (ELDERLY RESIDENTIAL)
OGVS
Calculation factor: 1 RESIDE
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	16	49	0.008	16	49	0.006	16	49	0.014
08:00 - 09:00	16	49	0.000	16	49	0.001	16	49	0.001
09:00 - 10:00	16	49	0.000	16	49	0.000	16	49	0.000
10:00 - 11:00	16	49	0.001	16	49	0.000	16	49	0.001
11:00 - 12:00	16	49	0.004	16	49	0.003	16	49	0.007
12:00 - 13:00	16	49	0.004	16	49	0.005	16	49	0.009
13:00 - 14:00	16	49	0.000	16	49	0.001	16	49	0.001
14:00 - 15:00	16	49	0.000	16	49	0.000	16	49	0.000
15:00 - 16:00	16	49	0.000	16	49	0.000	16	49	0.000
16:00 - 17:00	16	49	0.000	16	49	0.000	16	49	0.000
17:00 - 18:00	16	49	0.000	16	49	0.000	16	49	0.000
18:00 - 19:00	16	49	0.000	16	49	0.000	16	49	0.000
19:00 - 20:00	15	45	0.000	15	45	0.000	15	45	0.000
20:00 - 21:00	15	45	0.000	15	45	0.000	15	45	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.017			0.016			0.033

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 05 - HEALTH/F - CARE HOME (ELDERLY RESIDENTIAL)
PSVS
Calculation factor: 1 RESIDE
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	16	49	0.001	16	49	0.001	16	49	0.002
08:00 - 09:00	16	49	0.001	16	49	0.003	16	49	0.004
09:00 - 10:00	16	49	0.001	16	49	0.001	16	49	0.002
10:00 - 11:00	16	49	0.001	16	49	0.001	16	49	0.002
11:00 - 12:00	16	49	0.000	16	49	0.000	16	49	0.000
12:00 - 13:00	16	49	0.001	16	49	0.000	16	49	0.001
13:00 - 14:00	16	49	0.001	16	49	0.003	16	49	0.004
14:00 - 15:00	16	49	0.001	16	49	0.001	16	49	0.002
15:00 - 16:00	16	49	0.003	16	49	0.004	16	49	0.007
16:00 - 17:00	16	49	0.004	16	49	0.003	16	49	0.007
17:00 - 18:00	16	49	0.000	16	49	0.000	16	49	0.000
18:00 - 19:00	16	49	0.000	16	49	0.000	16	49	0.000
19:00 - 20:00	15	45	0.000	15	45	0.000	15	45	0.000
20:00 - 21:00	15	45	0.000	15	45	0.000	15	45	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.014			0.017			0.031

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 05 - HEALTH/F - CARE HOME (ELDERLY RESIDENTIAL)
CYCLISTS
Calculation factor: 1 RESIDE
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	16	49	0.004	16	49	0.004	16	49	0.008
08:00 - 09:00	16	49	0.004	16	49	0.000	16	49	0.004
09:00 - 10:00	16	49	0.001	16	49	0.001	16	49	0.002
10:00 - 11:00	16	49	0.000	16	49	0.000	16	49	0.000
11:00 - 12:00	16	49	0.003	16	49	0.001	16	49	0.004
12:00 - 13:00	16	49	0.000	16	49	0.000	16	49	0.000
13:00 - 14:00	16	49	0.001	16	49	0.001	16	49	0.002
14:00 - 15:00	16	49	0.001	16	49	0.003	16	49	0.004
15:00 - 16:00	16	49	0.000	16	49	0.001	16	49	0.001
16:00 - 17:00	16	49	0.000	16	49	0.004	16	49	0.004
17:00 - 18:00	16	49	0.000	16	49	0.003	16	49	0.003
18:00 - 19:00	16	49	0.000	16	49	0.000	16	49	0.000
19:00 - 20:00	15	45	0.000	15	45	0.000	15	45	0.000
20:00 - 21:00	15	45	0.000	15	45	0.000	15	45	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.014			0.018			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.*

Calculation Reference: AUDIT-152301-160209-0222

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	EX	ESSEX	1 days
	WS	WEST SUSSEX	1 days
04	EAST ANGLIA		
	SF	SUFFOLK	1 days
05	EAST MIDLANDS		
	LN	LINCOLNSHIRE	2 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NE	NORTH EAST LINCOLNSHIRE	2 days

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

Filtering Stage 2 selection:

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

Parameter: Number of dwellings
Actual Range: 150 to 432 (units:)
Range Selected by User: 150 to 1500 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/07 to 11/12/14

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

Selected survey days:

Monday	2 days
Tuesday	3 days
Thursday	2 days

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

Selected survey types:

Manual count	7 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	1
Suburban Area (PPS6 Out of Centre)	1
Edge of Town	5

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

Selected Location Sub Categories:

Residential Zone	6
No Sub Category	1

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

Filtering Stage 3 selection:

Use Class:

C3	7 days

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

Population within 1 mile:

1,001 to 5,000	1 days
10,001 to 15,000	2 days
15,001 to 20,000	3 days
20,001 to 25,000	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	1 days
75,001 to 100,000	1 days
100,001 to 125,000	2 days
125,001 to 250,000	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	2 days
1.1 to 1.5	5 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	6 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.

LIST OF SITES relevant to selection parameters

1	EX-03-A-01	SEMI-DET.		ESSEX
	MILTON ROAD			
	CORRINGHAM			
	STANFORD-LE-HOPE			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		237	
	Survey date: TUESDAY		13/05/08	Survey Type: MANUAL
2	LN-03-A-01	MIXED HOUSES		LINCOLNSHIRE
	BRANT ROAD			
	BRACEBRIDGE			
	LINCOLN			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		150	
	Survey date: TUESDAY		15/05/07	Survey Type: MANUAL
3	LN-03-A-02	MIXED HOUSES		LINCOLNSHIRE
	HYKEHAM ROAD			
	LINCOLN			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:		186	
	Survey date: MONDAY		14/05/07	Survey Type: MANUAL
4	NE-03-A-02	SEMI DETACHED & DETACHED		NORTH EAST LINCOLNSHIRE
	HANOVER WALK			
	SCUNTHORPE			
	Edge of Town			
	No Sub Category			
	Total Number of dwellings:		432	
	Survey date: MONDAY		12/05/14	Survey Type: MANUAL
5	NE-03-A-03	PRIVATE HOUSES		NORTH EAST LINCOLNSHIRE
	STATION ROAD			
	SCUNTHORPE			
	Edge of Town Centre			
	Residential Zone			
	Total Number of dwellings:		180	
	Survey date: TUESDAY		20/05/14	Survey Type: MANUAL
6	SF-03-A-02	SEMI DET./TERRACED		SUFFOLK
	STOKE PARK DRIVE			
	MAIDENHALL			
	IPSWICH			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		230	
	Survey date: THURSDAY		24/05/07	Survey Type: MANUAL
7	WS-03-A-04	MIXED HOUSES		WEST SUSSEX
	HILLS FARM LANE			
	BROADBRIDGE HEATH			
	HORSHAM			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		151	
	Survey date: THURSDAY		11/12/14	Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	224	0.084	7	224	0.259	7	224	0.343
08:00 - 09:00	7	224	0.151	7	224	0.401	7	224	0.552
09:00 - 10:00	7	224	0.157	7	224	0.173	7	224	0.330
10:00 - 11:00	7	224	0.133	7	224	0.175	7	224	0.308
11:00 - 12:00	7	224	0.162	7	224	0.147	7	224	0.309
12:00 - 13:00	7	224	0.177	7	224	0.172	7	224	0.349
13:00 - 14:00	7	224	0.156	7	224	0.153	7	224	0.309
14:00 - 15:00	7	224	0.177	7	224	0.185	7	224	0.362
15:00 - 16:00	7	224	0.304	7	224	0.222	7	224	0.526
16:00 - 17:00	7	224	0.296	7	224	0.192	7	224	0.488
17:00 - 18:00	7	224	0.345	7	224	0.218	7	224	0.563
18:00 - 19:00	7	224	0.252	7	224	0.215	7	224	0.467
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.394			2.512			4.906

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 - 432 (units:)
Survey date date range:	01/01/07 - 11/12/14
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are 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 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	224	0.135	7	224	0.396	7	224	0.531
08:00 - 09:00	7	224	0.240	7	224	0.800	7	224	1.040
09:00 - 10:00	7	224	0.237	7	224	0.304	7	224	0.541
10:00 - 11:00	7	224	0.213	7	224	0.280	7	224	0.493
11:00 - 12:00	7	224	0.242	7	224	0.247	7	224	0.489
12:00 - 13:00	7	224	0.272	7	224	0.255	7	224	0.527
13:00 - 14:00	7	224	0.250	7	224	0.248	7	224	0.498
14:00 - 15:00	7	224	0.299	7	224	0.310	7	224	0.609
15:00 - 16:00	7	224	0.686	7	224	0.397	7	224	1.083
16:00 - 17:00	7	224	0.540	7	224	0.324	7	224	0.864
17:00 - 18:00	7	224	0.544	7	224	0.362	7	224	0.906
18:00 - 19:00	7	224	0.404	7	224	0.380	7	224	0.784
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.062			4.303			8.365

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

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

Parameter summary

Trip rate parameter range selected:	150 - 432 (units:)
Survey date date range:	01/01/07 - 11/12/14
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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

APPENDIX C

ATC Survey Results

Advanced Transport Research

Globals

Report Id	CustomList-2263
Descriptor	Advanced Transport Research
Created by	MetroCount Traffic Executive
Creation Time (UTC)	2018-11-30T11:15:45
Legal	Copyright (c)1997 - 2016 MetroCount
Graphic	header.gif
Language	English
Country	United Kingdom
Time	UTC + 0 min
Create Version	5.0.1.0
Metric	Non metric
Speed Unit	mph
Length Unit	ft
Mass Unit	ton

Dataset

Site Name	18993-001
Site Attribute	WSP
File Name	Q:\18993 A1023 Chelmsford Road, Shenfield\18993-001 0 2018-11-29 1337.EC0
File Type	Plus
Algorithm	Factory default axle
Description	Chelmsford road [40m]
Lane	0
Direction	6
Direction Text	6 - West bound A]B, East bound B]A.
Layout Text	Axle sensors - Paired (Class/Speed/Count)
Setup Time	2018-11-19T10:09:54
Start Time	2018-11-19T10:09:54
Finish Time	2018-11-29T13:37:54
Operator	ATR
Configuration	40 MC5600 00 00 00 00 00 ? FW98GPGS MC56-L5 [MC55] (c)Microcom 19Oct04

Profile

Name	Advanced Transport Research
Title	Advanced Transport Research
Graphic Logo	C:and SettingsDocuments3.21_on_us_logo_cmyk 50.BMP
Header	
Footer	
Percentile 1	85
Percentile 2	95
Pace	12
Filter Start	2018-11-20T00:00:00
Filter End	2018-11-27T00:00:00
Class Scheme	ARX
F	Cls(1-10) Dir(E) Sp(0,120) Headway(]0) Span(0 - 328.084) Lane(0-16)
Low Speed	0
High Speed	120
Posted Limit	40
Speed Limits	46 55 40 40 40 0 0 0 0 40
Separation	0.000
Separation Type	Headway
Direction	East
Encoded Direction	2

Advanced Transport Research

Column	
Time	24-hour time (0000 - 2359)
Total	Number in time step
Cls 1	Class totals
Cls 2	Class totals
Cls 3	Class totals
Cls 4	Class totals
Cls 5	Class totals
Cls 6	Class totals
Cls 7	Class totals
Cls 8	Class totals
Cls 9	Class totals
Cls 10	Class totals
Fix1	User defined fixed text
Time	24-hour time (0000 - 2359)
Vbin 0 10	Speed bin totals
Vbin 10 15	Speed bin totals
Vbin 15 20	Speed bin totals
Vbin 20 25	Speed bin totals
Vbin 25 30	Speed bin totals
Vbin 30 35	Speed bin totals
Vbin 35 40	Speed bin totals
Vbin 40 45	Speed bin totals
Vbin 45 50	Speed bin totals
Vbin 50 60	Speed bin totals
Vbin 60 70	Speed bin totals
Vbin 70 80	Speed bin totals
Vbin 80 90	Speed bin totals
Vbin 90 100	Speed bin totals
Mean	Average speed
Vpp 85	Percentile speed
]PSL 40	Number exceeding Posted Speed Limit
]PSL% 40	Percent exceeding Posted Speed Limit
]SL1 46 ACPO	Number exceeding Speed Limit 1
]SL1% 46 ACPO	Percent exceeding Speed Limit 1
]SL2 55 DFT	Number exceeding Speed Limit 2
]SL2% 55 DFT	Percent exceeding Speed Limit 2

Advanced Transport Research

Report Id - CustomList-2263
Site Name - 18993-001
Description - Chelmsford road [40m]
Direction - East

20 November 2018

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	]PSL 40	]PSL% 40	]SL1 46 ACPO	]SL1% 46 ACPO	]SL2 55 DFT	]SL2% 55 DFT
0000	33	0	26	0	5	1	0	0	0	0	1		0000	0	0	0	0	2	4	7	12	4	3	1	0	0	0	41.5	48.4	20	60.61	8	24.24	2	6.061
0100	13	0	9	0	3	1	0	0	0	0	0		0100	0	0	0	0	0	1	3	6	1	2	0	0	0	0	42.4	51.9	9	69.23	2	15.38	1	7.692
0200	15	0	10	0	5	0	0	0	0	0	0		0200	0	0	0	0	1	4	4	4	1	1	0	0	0	0	39.1	46.9	6	40	2	13.33	0	0
0300	17	0	16	0	1	0	0	0	0	0	0		0300	0	0	0	0	0	0	2	6	5	4	0	0	0	0	45.9	52.3	15	88.24	9	52.94	1	5.882
0400	25	0	21	0	3	0	0	0	0	0	1		0400	0	0	0	0	2	1	11	5	5	1	0	0	0	0	40.3	49.2	11	44	5	20	1	4
0500	87	2	74	0	8	3	0	0	0	0	0		0500	0	0	0	1	2	4	23	26	16	13	2	0	0	0	43.4	51.7	57	65.52	30	34.48	8	9.195
0600	208	0	178	0	21	9	0	0	0	0	0		0600	0	0	0	0	0	11	85	84	22	6	0	0	0	0	40.9	44.7	112	53.85	23	11.06	1	0.481
0700	572	1	543	0	21	7	0	0	0	0	0		0700	0	0	0	3	13	155	290	91	17	3	0	0	0	0	37	40.5	111	19.41	12	2.098	0	0
0800	676	1	626	2	29	14	2	0	1	0	1		0800	3	3	3	7	34	160	348	100	11	7	0	0	0	0	36.4	40.4	118	17.46	13	1.923	0	0
0900	455	0	409	0	25	17	2	0	1	1	0		0900	33	30	44	41	23	68	152	53	7	2	1	0	1	0	30.2	39.8	64	14.07	9	1.978	2	0.44
1000	410	3	366	1	20	15	3	0	0	0	2		1000	15	68	100	110	63	35	14	4	1	0	0	0	0	0	21.4	29.2	5	1.22	1	0.244	0	0
1100	396	0	352	1	31	6	0	2	0	1	3		1100	31	76	123	71	48	33	7	5	1	0	1	0	0	0	20	28.2	7	1.768	1	0.253	1	0.253
1200	424	1	374	3	21	21	1	0	0	1	2		1200	27	92	98	110	65	23	5	2	0	2	0	0	0	0	19.9	27.2	4	0.943	2	0.472	0	0
1300	429	0	386	1	30	10	0	0	1	0	1		1300	57	79	111	101	59	17	3	2	0	0	0	0	0	0	18.7	26.3	2	0.466	0	0	0	0
1400	485	2	442	0	28	10	1	1	0	0	1		1400	19	45	98	104	74	87	43	14	1	0	0	0	0	0	24.6	34.2	15	3.093	1	0.206	0	0
1500	681	1	638	1	24	13	1	0	0	1	2		1500	1	0	2	8	63	227	301	69	9	1	0	0	0	0	35.4	39.5	79	11.6	3	0.441	0	0
1600	912	4	854	4	31	19	0	0	0	0	0		1600	0	0	0	2	86	395	351	74	3	1	0	0	0	0	34.8	38.6	78	8.553	3	0.329	0	0
1700	945	3	904	2	26	10	0	0	0	0	0		1700	0	1	13	3	47	348	426	95	10	2	0	0	0	0	35.4	39.2	107	11.32	10	1.058	0	0
1800	807	1	780	0	11	15	0	0	0	0	0		1800	0	0	0	11	54	225	391	115	11	0	0	0	0	0	36.1	40.1	126	15.61	8	0.991	0	0
1900	522	2	491	0	14	14	0	0	0	0	1		1900	0	1	1	0	25	128	260	79	19	8	0	0	1	0	37.1	41.1	107	20.5	23	4.406	2	0.383
2000	284	1	269	0	4	10	0	0	0	0	0		2000	0	0	1	1	8	64	125	68	14	2	1	0	0	0	37.9	42.2	85	29.93	12	4.225	1	0.352
2100	214	0	193	0	6	15	0	0	0	0	0		2100	0	0	0	0	5	38	100	53	14	3	1	0	0	0	38.6	42.8	71	33.18	12	5.607	2	0.935
2200	140	1	131	0	3	5	0	0	0	0	0		2200	0	0	0	0	2	21	65	38	10	3	0	1	0	0	39.3	43.4	52	37.14	7	5	1	0.714
2300	97	0	95	0	2	0	0	0	0	0	0		2300	0	1	0	0	0	14	31	35	12	3	1	0	0	0	40.6	45.7	51	52.58	12	12.37	2	2.062
07-19	**7192**	**17**	**6674**	**15**	**297**	**157**	**10**	**3**	**3**	**4**	**12**		**07-19**	**186**	**394**	**592**	**571**	**629**	**1773**	**2331**	**624**	**71**	**18**	**2**	**0**	**1**	**0**	**31**	**38.9**	**716**	**9.956**	**63**	**0.876**	**3**	**0.042**
06-22	**8420**	**20**	**7805**	**15**	**342**	**205**	**10**	**3**	**3**	**4**	**13**		**06-22**	**186**	**395**	**594**	**572**	**667**	**2014**	**2901**	**908**	**140**	**37**	**4**	**0**	**2**	**0**	**32**	**39.5**	**1091**	**12.96**	**133**	**1.58**	**9**	**0.107**
06-00	**8657**	**21**	**8031**	**15**	**347**	**210**	**10**	**3**	**3**	**4**	**13**		**06-00**	**186**	**396**	**594**	**572**	**669**	**2049**	**2997**	**981**	**162**	**43**	**5**	**1**	**2**	**0**	**32.3**	**39.7**	**1194**	**13.79**	**152**	**1.756**	**12**	**0.139**
00-00	**8847**	**23**	**8187**	**15**	**372**	**215**	**10**	**3**	**3**	**4**	**15**		**00-00**	**186**	**396**	**594**	**573**	**676**	**2063**	**3047**	**1040**	**194**	**67**	**8**	**1**	**2**	**0**	**32.5**	**40**	**1312**	**14.83**	**208**	**2.351**	**25**	**0.283**

21 November 2018

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	]PSL 40	]PSL% 40	]SL1 46 ACPO	]SL1% 46 ACPO	]SL2 55 DFT	]SL2% 55 DFT
0000	35	0	31	0	2	2	0	0	0	0	0		0000	0	0	0	0	2	1	8	18	2	4	0	0	0	0	42.1	49.8	24	68.57	6	17.14	2	5.714
0100	23	0	19	0	3	1	0	0	0	0	0		0100	0	0	0	0	0	1	6	9	3	4	0	0	0	0	43.4	52.7	16	69.57	6	26.09	1	4.348
0200	19	0	16	0	3	0	0	0	0	0	0		0200	0	0	0	0	0	2	4	6	4	3	0	0	0	0	42.4	51.7	13	68.42	6	31.58	0	0
0300	20	0	15	0	4	1	0	0	0	0	0		0300	0	0	0	0	0	1	5	5	6	2	1	0	0	0	44.6	49.8	14	70	8	40	1	5
0400	27	0	23	0	1	1	0	0	0	0	2		0400	0	0	0	0	1	2	12	7	3	2	0	0	0	0	40.5	48.3	12	44.44	4	14.81	1	3.704
0500	73	1	59	1	9	3	0	0	0	0	0		0500	0	0	0	0	0	4	14	26	13	15	1	0	0	0	44.8	52.4	55	75.34	25	34.25	7	9.589
0600	219	1	195	0	15	8	0	0	0	0	0		0600	0	0	0	0	0	14	89	86	26	4	0	0	0	0	40.8	44.9	116	52.97	22	10.05	2	0.913
0700	596	1	557	1	24	13	0	0	0	0	0		0700	0	0	0	6	16	91	261	194	19	7	2	0	0	0	38.5	42.3	222	37.25	23	3.859	2	0.336
0800	669	3	632	0	22	12	0	0	0	0	0		0800	0	1	1	15	35	159	300	121	28	8	0	0	0	1	36.9	41.2	158	23.62	29	4.335	2	0.299
0900	458	0	410	0	27	15	1	0	2	0	3		0900	25	35	36	30	36	118	125	48	5	0	0	0	0	0	30	39.4	53	11.57	4	0.873	0	0
1000	393	1	353	0	28	10	1	0	0	0	0		1000	2	9	7	29	17	87	176	51	12	2	1	0	0	0	34.8	40.7	66	16.79	11	2.799	1	0.254
1100	426	3	382	1	21	14	1	2	1	1	0		1100	19	57	73	82	75	62	33	22	2	0	1	0	0	0	24.3	34.3	25	5.869	3	0.704	1	0.235
1200	466	0	426	0	28	7	3	1	0	0	1		1200	35	78	115	118	84	31	3	1	1	0	0	0	0	0	20.3	28.1	2	0.429	1	0.215	0	0
1300	430	1	381	2	33	9	1	2	0	0	1		1300	25	70	107	101	76	30	14	6	0	1	0	0	0	0	21.1	28.8	7	1.628	1	0.233	1	0.233
1400	476	1	424	1	36	8	2	1	2	0	1		1400	33	66	138	150	74	13	2	0	0	0	0	0	0	0	19.7	25.7	0	0	0	0	0	0
1500	642	5	580	1	47	6	2	0	1	0	0		1500	12	43	31	52	72	184	183	52	9	4	0	0	0	0	31.2	38.8	65	10.12	9	1.402	0	0
1600	857	3	792	3	38	17	1	0	1	2	0		1600	0	1	3	5	58	360	356	63	9	2	0	0	0	0	35	38.6	74	8.635	9	1.05	1	0.117
1700	932	3	883	0	32	13	0	0	0	1	0		1700	0	0	0	0	39	319	451	109	14	0	0	0	0	0	36.1	39.8	123	13.2	7	0.751	0	0
1800	736	2	714	1	11	7	0	0	0	0	1		1800	0	0	0	0	25	171	374	139	25	2	0	0	0	0	37.3	41.2	166	22.55	21	2.853	1	0.136
1900	537	2	506	1	11	17	0	0	0	0	0		1900	0	0	0	0	6	87	276	145	21	2	0	0	0	0	38.4	42.2	168	31.28	16	2.98	1	0.186
2000	348	2	322	0	4	18	1	0	0	0	1		2000	0	0	1	0	3	59	169	92	16	7	1	0	0	0	38.7	42.5	116	33.33	19	5.46	3	0.862
2100	253	1	239	0	4	9	0	0	0	0	0		2100	0	1	0	1	7	54	109	60	17	4	0	0	0	0	38.3	43.1	81	32.02	17	6.719	0	0
2200	211	1	195	0	1	14	0	0	0	0	0		2200	0	0	0	1	1	26	92	67	17	7	0	0	0	0	39.5	44.2	91	43.13	18	8.531	2	0.948
2300	91	1	83	0	7	0	0	0	0	0	0		2300	0	0	0	0	1	5	24	38	12	11	0	0	0	0	42.4	48.5	61	67.03	19	20.88	4	4.396
07-19	**7081**	**23**	**6534**	**10**	**347**	**131**	**12**	**6**	**7**	**4**	**7**		**07-19**	**151**	**360**	**511**	**588**	**607**	**1625**	**2278**	**806**	**124**	**26**	**4**	**0**	**0**	**1**	**31.7**	**39.7**	**961**	**13.57**	**118**	**1.666**	**9**	**0.127**
06-22	**8438**	**29**	**7796**	**11**	**381**	**183**	**13**	**6**	**7**	**4**	**8**		**06-22**	**151**	**361**	**512**	**589**	**623**	**1839**	**2921**	**1189**	**204**	**43**	**5**	**0**	**0**	**1**	**32.8**	**40.4**	**1442**	**17.09**	**192**	**2.275**	**15**	**0.178**
06-00	**8740**	**31**	**8074**	**11**	**389**	**197**	**13**	**6**	**7**	**4**	**8**		**06-00**	**151**	**361**	**512**	**590**	**625**	**1870**	**3037**	**1294**	**233**	**61**	**5**	**0**	**0**	**1**	**33.1**	**40.6**	**1594**	**18.24**	**229**	**2.62**	**21**	**0.24**
00-00	**8937**	**32**	**8237**	**12**	**411**	**205**	**13**	**6**	**7**	**4**	**10**		**00-00**	**151**	**361**	**512**	**590**	**628**	**1881**	**3086**	**1365**	**264**	**91**	**7**	**0**	**0**	**1**	**33.3**	**40.8**	**1728**	**19.34**	**284**	**3.178**	**33**	**0.369**

22 November 2018

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	]PSL 40	]PSL% 40	]SL1 46 ACPO	]SL1% 46 ACPO	]SL2 55 DFT	]SL2% 55 DFT
0000	54	0	46	0	8	0	0	0	0	0	0		0000	0	0	0	0	0	7	18	10	5	12	2	0	0	0	43.4	52.3	29	53.7	17	31.48	6	11.11
0100	25	0	16	0	8	0	0	0	1	0	0		0100	0	0	0	0	2	2	10	6	3	2	0	0	0	0	40.7	48.2	11	44	4	16	0	0
0200	11	0	8	0	2	0	0	0	0	0	1		0200	0	0	0	0	0	3	5	1	1	0	1	0	0	0	39.5	48	3	27.27	1	9.091	1	9.091
0300	21	0	16	0	5	0	0	0	0	0	0		0300	0	0	0	1	2	2	4	8	4	0	0	0	0	0	39	46.7	12	57.14	3	14.29	0	0
0400	29	0	22	0	5	2	0	0	0	0	0		0400	0	0	0	0	0	4	16	5	2	1	1	0	0	0	40.4	45.8	9	31.03	4	13.79	1	3.448
0500	57	1	45	0	8	2	0	0	0	0	1		0500	0	0	0	0	0	2	15	22	9	7	2	0	0	0	44	51	40	70.18	15	26.32	4	7.018
0600	211	1	191	0	18	0	0	0	0	1	0		0600	0	0	0	0	1	14	89	79	22	6	0	0	0	0	40.4	44	107	50.71	21	9.953	4	1.896
0700	582	3	557	0	10	10	1	0	0	0	1		0700	0	1	0	5	19	147	292	98	18	2	0	0	0	0	36.9	41	118	20.27	14	2.405	0	0
0800	679	1	643	0	17	15	1	0	1	1	0		0800	0	0	0	4	20	151	362	110	23	9	0	0	0	0	37.5	40.8	142	20.91	24	3.535	1	0.147
0900	453	0	424	2	18	6	0	1	1	0	1		0900	3	14	13	17	42	111	177	68	7	1	0	0	0	0	34.1	40.5	76	16.78	6	1.325	0	0
1000	430	0	385	0	34	9	0	0	1	0	1		1000	23	90	113	133	56	11	4	0	0	0	0	0	0	0	19.4	25.5	0	0	0	0	0	0
1100	468	1	429	0	27	10	0	0	0	0	1		1100	26	98	105	150	69	15	3	0	2	0	0	0	0	0	19.7	26.1	2	0.427	1	0.214	0	0
1200	445	1	404	0	29	8	2	0	0	1	0		1200	13	76	113	149	71	15	5	2	1	0	0	0	0	0	20.5	26.1	3	0.674	1	0.225	0	0
1300	422	1	367	2	36	13	0	1	1	0	1		1300	13	72	125	130	64	11	5	0	2	0	0	0	0	0	20.1	25.9	2	0.474	2	0.474	0	0
1400	439	1	391	0	40	3	3	1	0	0	0		1400	36	76	108	140	63	10	1	0	3	0	0	2	0	0	19.6	25.7	5	1.139	5	1.139	2	0.456
1500	565	3	508	2	44	5	2	0	0	1	0		1500	83	99	108	123	117	25	9	1	0	0	0	0	0	0	19.3	28	1	0.177	0	0	0	0
1600	894	5	829	3	47	9	1	0	0	0	0		1600	1	0	1	5	115	391	332	44	5	0	0	0	0	0	34.2	38	49	5.481	4	0.447	0	0
1700	1005	1	958	0	36	8	1	0	1	0	0		1700	0	1	0	4	87	373	448	85	5	2	0	0	0	0	35.2	39.1	92	9.154	4	0.398	0	0
1800	913	4	861	2	35	8	2	0	0	0	1		1800	0	0	0	4	63	298	401	130	11	6	0	0	0	0	36.2	40.2	147	16.1	11	1.205	4	0.438
1900	496	4	473	0	13	5	1	0	0	0	0		1900	0	0	0	1	27	70	273	94	20	11	0	0	0	0	37.9	41.6	125	25.2	25	5.04	1	0.202
2000	292	2	276	0	5	6	0	0	0	1	2		2000	0	1	0	1	8	38	124	77	28	12	3	0	0	0	39.6	44.6	120	41.1	37	12.67	6	2.055
2100	254	0	240	0	9	5	0	0	0	0	0		2100	0	0	0	0	2	40	136	58	12	6	0	0	0	0	38.7	42.3	76	29.92	12	4.724	1	0.394
2200	195	0	187	0	7	1	0	0	0	0	0		2200	0	0	0	0	2	33	102	38	16	4	0	0	0	0	38.7	43.3	58	29.74	15	7.692	0	0
2300	153	0	144	0	5	4	0	0	0	0	0		2300	0	0	0	0	1	18	72	37	16	6	2	1	0	0	40.5	45.6	62	40.52	21	13.73	3	1.961
07-19	**7295**	**21**	**6756**	**11**	**373**	**104**	**13**	**3**	**5**	**3**	**6**		**07-19**	**198**	**527**	**686**	**864**	**786**	**1558**	**2039**	**538**	**77**	**20**	**0**	**2**	**0**	**0**	**29.6**	**38.6**	**637**	**8.732**	**72**	**0.987**	**7**	**0.096**
06-22	**8548**	**28**	**7936**	**11**	**418**	**120**	**14**	**3**	**5**	**5**	**8**		**06-22**	**198**	**528**	**686**	**866**	**824**	**1720**	**2661**	**846**	**159**	**55**	**3**	**2**	**0**	**0**	**31**	**39.5**	**1065**	**12.46**	**167**	**1.954**	**19**	**0.222**
06-00	**8896**	**28**	**8267**	**11**	**430**	**125**	**14**	**3**	**5**	**5**	**8**		**06-00**	**198**	**528**	**686**	**866**	**827**	**1771**	**2835**	**921**	**191**	**65**	**5**	**3**	**0**	**0**	**31.3**	**39.6**	**1185**	**13.32**	**203**	**2.282**	**22**	**0.247**
00-00	**9093**	**29**	**8420**	**11**	**466**	**129**	**14**	**3**	**6**	**5**	**10**		**00-00**	**198**	**528**	**686**	**867**	**831**	**1791**	**2903**	**973**	**215**	**87**	**11**	**3**	**0**	**0**	**31.5**	**39.8**	**1289**	**14.18**	**247**	**2.716**	**34**	**0.374**

23 November 2018

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	]PSL 40	]PSL% 40	]SL1 46 ACPO	]SL1% 46 ACPO	]SL2 55 DFT	]SL2% 55 DFT
0000	65	0	56	0	5	4	0	0	0	0	0		0000	0	0	0	0	1	5	9	24	15	9	2	0	0	0	44	51	50	76.92	21	32.31	3	4.615
0100	32	0	28	0	2	2	0	0	0	0	0		0100	0	0	0	0	0	1	7	13	6	4	0	1	0	0	43.8	50.5	24	75	10	31.25	1	3.125
0200	15	0	12	0	1	2	0	0	0	0	0		0200	0	0	0	0	1	3	8	2	0	1	0	0	0	0	37.7	41.9	3	20	1	6.667	1	6.667
0300	14	0	12	0	1	1	0	0	0	0	0		0300	0	0	0	0	0	2	9	2	0	1	0	0	0	0	38.4	42.2	3	21.43	1	7.143	0	0
0400	28	0	23	0	2	0	0	0	0	2	1		0400	0	0	0	0	2	3	11	6	4	1	1	0	0	0	40.2	47.8	12	42.86	6	21.43	1	3.571
0500	67	1	53	0	7	3	1	0	0	1	1		0500	0	0	0	0	1	2	17	26	10	11	0	0	0	0	43.4	50.2	47	70.15	19	28.36	5	7.463
0600	213	1	197	1	11	3	0	0	0	0	0		0600	0	0	0	0	2	12	95	73	23	7	1	0	0	0	40.4	44.9	104	48.83	25	11.74	1	0.469
0700	518	4	473	1	35	4	0	0	1	0	0		0700	0	0	0	0	7	102	253	138	14	4	0	0	0	0	38.1	41.9	156	30.12	11	2.124	0	0
0800	673	1	619	1	40	8	0	1	1	0	2		0800	1	0	0	7	49	207	289	96	19	4	0	0	0	1	36.2	40.5	120	17.83	16	2.377	1	0.149
0900	513	1	447	1	60	1	0	1	0	1	1		0900	8	35	55	41	50	109	160	53	2	0	0	0	0	0	30.5	38.9	55	10.72	1	0.195	0	0
1000	470	3	425	1	34	5	0	2	0	0	0		1000	47	91	126	115	61	17	12	0	0	1	0	0	0	0	19.1	26.3	1	0.213	1	0.213	1	0.213
1100	480	2	433	3	38	2	1	0	0	0	1		1100	16	67	153	101	74	53	14	2	0	0	0	0	0	0	21.4	29.5	2	0.417	0	0	0	0
1200	526	4	468	1	48	1	2	0	1	1	0		1200	38	108	161	118	72	16	9	4	0	0	0	0	0	0	19.2	25.9	4	0.76	0	0	0	0
1300	512	2	452	3	47	6	1	0	1	0	0		1300	37	103	131	130	84	20	6	0	1	0	0	0	0	0	19.5	26.8	1	0.195	1	0.195	0	0
1400	523	3	464	1	47	6	0	1	0	0	1		1400	33	116	162	134	58	10	7	2	0	0	1	0	0	0	18.8	25	3	0.574	1	0.191	1	0.191
1500	715	4	649	3	47	10	1	1	0	0	0		1500	8	24	41	54	94	238	190	52	11	3	0	0	0	0	31.7	38.6	66	9.231	10	1.399	1	0.14
1600	893	6	821	1	58	4	2	0	0	0	1		1600	0	1	1	4	67	355	350	99	12	4	0	0	0	0	35.3	39.5	115	12.88	8	0.896	0	0
1700	843	3	800	0	33	4	0	0	0	2	1		1700	0	1	1	0	33	281	406	107	12	2	0	0	0	0	36.2	39.8	121	14.35	11	1.305	0	0
1800	664	0	629	1	29	4	0	0	1	0	0		1800	0	0	0	3	16	175	325	126	18	1	0	0	0	0	37.1	41.1	145	21.84	8	1.205	0	0
1900	469	3	444	1	16	4	1	0	0	0	0		1900	0	0	0	0	3	89	243	99	25	9	1	0	0	0	38.4	42.3	134	28.57	30	6.397	2	0.426
2000	280	2	262	0	13	2	0	0	0	0	1		2000	0	0	2	3	13	52	103	75	21	9	1	1	0	0	38.7	44.3	107	38.21	23	8.214	3	1.071
2100	160	0	152	1	6	0	0	0	0	1	0		2100	0	0	0	1	4	13	67	53	13	7	2	0	0	0	40.1	44.8	75	46.88	18	11.25	4	2.5
2200	182	0	179	1	1	1	0	0	0	0	0		2200	0	0	0	0	7	32	78	46	10	9	0	0	0	0	38.8	43.3	65	35.71	15	8.242	2	1.099
2300	206	1	195	0	8	2	0	0	0	0	0		2300	0	1	0	0	3	47	73	61	10	10	0	1	0	0	39.1	43.3	82	39.81	20	9.709	5	2.427
07-19	**7330**	**33**	**6680**	**17**	**516**	**55**	**7**	**6**	**5**	**4**	**7**		**07-19**	**188**	**546**	**831**	**707**	**665**	**1583**	**2021**	**679**	**89**	**19**	**1**	**0**	**0**	**1**	**29.8**	**38.9**	**789**	**10.76**	**68**	**0.928**	**4**	**0.055**
06-22	**8452**	**39**	**7735**	**20**	**562**	**64**	**8**	**6**	**5**	**5**	**8**		**06-22**	**188**	**546**	**833**	**711**	**687**	**1749**	**2529**	**979**	**171**	**51**	**6**	**1**	**0**	**1**	**31**	**39.8**	**1209**	**14.3**	**164**	**1.94**	**14**	**0.166**
06-00	**8840**	**40**	**8109**	**21**	**571**	**67**	**8**	**6**	**5**	**5**	**8**		**06-00**	**188**	**547**	**833**	**711**	**697**	**1828**	**2680**	**1086**	**191**	**70**	**6**	**2**	**0**	**1**	**31.4**	**40.1**	**1356**	**15.34**	**199**	**2.251**	**21**	**0.238**
00-00	**9061**	**41**	**8293**	**21**	**589**	**79**	**9**	**6**	**5**	**8**	**10**		**00-00**	**188**	**547**	**833**	**711**	**702**	**1844**	**2741**	**1159**	**226**	**97**	**9**	**3**	**0**	**1**	**31.6**	**40.4**	**1495**	**16.5**	**257**	**2.836**	**32**	**0.353**

24 November 2018

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	]PSL 40	]PSL% 40	]SL1 46 ACPO	]SL1% 46 ACPO	]SL2 55 DFT	]SL2% 55 DFT
0000	106	0	98	1	6	1	0	0	0	0	0		0000	0	0	0	0	9	17	44	15	15	3	2	0	1	0	39.6	47.4	36	33.96	18	16.98	3	2.83
0100	76	0	75	0	1	0	0	0	0	0	0		0100	0	0	0	0	2	4	22	26	13	8	1	0	0	0	42.5	48.7	48	63.16	18	23.68	2	2.632
0200	40	0	36	0	4	0	0	0	0	0	0		0200	0	0	0	0	1	4	19	8	4	4	0	0	0	0	40.6	47.4	16	40	7	17.5	1	2.5
0300	17	0	15	0	2	0	0	0	0	0	0		0300	0	0	0	0	0	2	4	5	2	3	1	0	0	0	43.9	53.5	11	64.71	6	35.29	1	5.882
0400	31	0	27	0	4	0	0	0	0	0	0		0400	0	0	0	0	1	10	7	6	4	2	1	0	0	0	40.1	46.7	13	41.94	5	16.13	2	6.452
0500	36	1	31	0	4	0	0	0	0	0	0		0500	0	0	0	0	0	3	7	9	6	8	1	1	1	0	46.5	56.8	26	72.22	17	47.22	6	16.67
0600	88	0	78	0	7	3	0	0	0	0	0		0600	0	0	0	0	1	10	25	34	12	5	1	0	0	0	41.3	47	52	59.09	14	15.91	2	2.273
0700	158	1	141	0	11	4	0	1	0	0	0		0700	0	1	0	0	2	11	66	48	19	7	4	0	0	0	40.8	46.1	78	49.37	23	14.56	6	3.797
0800	354	1	332	0	13	5	0	0	2	0	1		0800	0	1	0	1	3	38	175	113	21	2	0	0	0	0	39.2	42.8	136	38.42	17	4.802	1	0.282
0900	399	5	367	0	25	2	0	0	0	0	0		0900	0	0	1	0	3	73	192	94	25	11	0	0	0	0	38.6	42.9	130	32.58	31	7.769	2	0.501
1000	518	1	474	1	36	5	0	0	0	1	0		1000	0	0	0	0	20	100	270	103	17	8	0	0	0	0	37.7	41.3	128	24.71	21	4.054	2	0.386
1100	634	2	586	1	38	6	1	0	0	0	0		1100	0	0	0	2	15	183	286	123	21	4	0	0	0	0	37.1	41.2	148	23.34	16	2.524	2	0.315
1200	668	1	631	2	33	1	0	0	0	0	0		1200	0	0	1	0	33	214	284	106	24	6	0	0	0	0	36.7	41	136	20.36	21	3.144	1	0.15
1300	591	1	554	1	32	3	0	0	0	0	0		1300	0	0	0	1	9	176	291	88	20	6	0	0	0	0	37.1	41	114	19.29	23	3.892	2	0.338
1400	474	2	437	0	33	2	0	0	0	0	0		1400	0	0	0	0	6	93	240	105	25	5	0	0	0	0	38.1	41.7	135	28.48	23	4.852	0	0
1500	475	1	433	1	36	2	0	0	0	0	2		1500	0	0	0	0	13	133	238	73	16	2	0	0	0	0	37	40.8	91	19.16	14	2.947	0	0
1600	486	0	455	0	25	5	0	0	1	0	0		1600	0	0	1	1	29	115	237	84	15	4	0	0	0	0	37	41	103	21.19	16	3.292	1	0.206
1700	435	0	412	0	22	1	0	0	0	0	0		1700	0	0	0	0	24	111	186	90	20	4	0	0	0	0	37.3	41.7	114	26.21	20	4.598	1	0.23
1800	443	3	422	0	12	3	0	1	1	0	1		1800	0	1	1	1	19	84	244	69	19	5	0	0	0	0	37.3	41.2	93	20.99	21	4.74	1	0.226
1900	322	0	298	0	18	3	0	0	0	2	1		1900	0	0	0	0	22	49	147	83	16	5	0	0	0	0	38.1	42.7	104	32.3	17	5.28	2	0.621
2000	198	0	183	0	11	4	0	0	0	0	0		2000	0	0	0	0	8	25	87	52	20	5	1	0	0	0	39.4	44.7	78	39.39	19	9.596	3	1.515
2100	172	0	162	0	6	2	0	0	0	1	1		2100	0	0	0	0	1	28	85	38	11	9	0	0	0	0	39.3	43.8	58	33.72	15	8.721	3	1.744
2200	146	0	138	0	5	3	0	0	0	0	0		2200	0	0	0	1	1	22	57	41	16	7	1	0	0	0	39.8	45.6	65	44.52	18	12.33	4	2.74
2300	169	0	160	0	7	2	0	0	0	0	0		2300	0	0	0	0	0	36	84	32	8	8	1	0	0	0	38.9	42.4	49	28.99	15	8.876	5	2.959
07-19	**5635**	**18**	**5244**	**6**	**316**	**39**	**1**	**2**	**4**	**1**	**4**		**07-19**	**0**	**3**	**4**	**6**	**176**	**1331**	**2709**	**1096**	**242**	**64**	**4**	**0**	**0**	**0**	**37.6**	**41.6**	**1406**	**24.95**	**246**	**4.366**	**19**	**0.337**
06-22	**6415**	**18**	**5965**	**6**	**358**	**51**	**1**	**2**	**4**	**4**	**6**		**06-22**	**0**	**3**	**4**	**6**	**208**	**1443**	**3053**	**1303**	**301**	**88**	**6**	**0**	**0**	**0**	**37.7**	**41.9**	**1698**	**26.47**	**311**	**4.848**	**29**	**0.452**
06-00	**6730**	**18**	**6263**	**6**	**370**	**56**	**1**	**2**	**4**	**4**	**6**		**06-00**	**0**	**3**	**4**	**7**	**209**	**1501**	**3194**	**1376**	**325**	**103**	**8**	**0**	**0**	**0**	**37.8**	**41.9**	**1812**	**26.92**	**344**	**5.111**	**38**	**0.565**
00-00	**7036**	**19**	**6545**	**7**	**391**	**57**	**1**	**2**	**4**	**4**	**6**		**00-00**	**0**	**3**	**4**	**7**	**222**	**1541**	**3297**	**1445**	**369**	**131**	**14**	**1**	**2**	**0**	**38**	**42.2**	**1962**	**27.89**	**415**	**5.898**	**53**	**0.753**

25 November 2018

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	]PSL 40	]PSL% 40	]SL1 46 ACPO	]SL1% 46 ACPO	]SL2 55 DFT	]SL2% 55 DFT
0000	122	2	115	0	2	3	0	0	0	0	0		0000	0	0	0	0	0	14	64	28	12	2	2	0	0	0	39.6	44.8	44	36.07	10	8.197	2	1.639
0100	87	0	81	0	3	3	0	0	0	0	0		0100	0	0	0	0	2	12	26	28	13	6	0	0	0	0	40.7	45.9	47	54.02	11	12.64	1	1.149
0200	57	0	53	0	3	1	0	0	0	0	0		0200	0	0	0	0	1	4	17	11	11	11	2	0	0	0	43.8	51.4	35	61.4	22	38.6	6	10.53
0300	25	0	20	0	3	1	0	0	0	1	0		0300	0	0	0	0	1	4	5	7	4	4	0	0	0	0	42.5	53.1	15	60	7	28	1	4
0400	13	1	12	0	0	0	0	0	0	0	0		0400	0	0	0	0	0	0	7	3	0	2	1	0	0	0	42.6	55.1	6	46.15	3	23.08	2	15.38
0500	19	0	18	0	0	1	0	0	0	0	0		0500	0	0	0	0	1	1	6	3	5	1	2	0	0	0	44	50.9	11	57.89	7	36.84	2	10.53
0600	39	0	34	0	4	1	0	0	0	0	0		0600	0	0	0	0	0	3	21	10	1	3	1	0	0	0	40.3	43.7	15	38.46	5	12.82	1	2.564
0700	81	1	71	0	5	4	0	0	0	0	0		0700	0	0	1	0	1	7	31	21	11	8	1	0	0	0	41.5	48.3	41	50.62	20	24.69	3	3.704
0800	162	2	143	0	13	4	0	0	0	0	0		0800	0	0	1	0	1	15	58	43	31	12	1	0	0	0	41.6	47.9	87	53.7	36	22.22	5	3.086
0900	349	2	321	0	22	3	0	1	0	0	0		0900	0	0	0	0	10	39	140	109	38	11	2	0	0	0	40	44.9	160	45.85	41	11.75	6	1.719
1000	435	4	409	1	20	0	0	0	0	0	1		1000	0	1	1	0	9	74	205	120	21	4	0	0	0	0	38.3	42.6	145	33.33	19	4.368	0	0
1100	487	0	467	0	16	4	0	0	0	0	0		1100	0	0	0	0	4	79	238	132	27	7	0	0	0	0	38.7	42.9	166	34.09	25	5.133	1	0.205
1200	570	1	545	0	22	1	0	0	0	1	0		1200	0	0	0	0	11	102	310	115	27	5	0	0	0	0	38	41.8	147	25.79	24	4.211	2	0.351
1300	529	3	501	0	22	3	0	0	0	0	0		1300	0	0	0	0	10	87	279	115	24	14	0	0	0	0	38.5	42.1	153	28.92	26	4.915	4	0.756
1400	460	0	438	2	17	1	0	0	1	1	0		1400	0	0	0	2	9	82	223	114	26	4	0	0	0	0	38.2	42	144	31.3	19	4.13	1	0.217
1500	389	2	370	3	12	2	0	0	0	0	0		1500	0	0	1	0	0	59	189	104	28	8	0	0	0	0	39	42.9	140	35.99	29	7.455	2	0.514
1600	367	1	350	1	13	2	0	0	0	0	0		1600	0	0	3	2	13	100	157	73	16	2	0	0	1	0	37.3	42	92	25.07	18	4.905	1	0.272
1700	343	0	326	0	13	4	0	0	0	0	0		1700	0	0	0	0	7	63	154	80	29	10	0	0	0	0	38.8	43.4	119	34.69	30	8.746	1	0.292
1800	262	1	250	0	10	1	0	0	0	0	0		1800	0	0	0	1	9	49	103	69	17	12	1	1	0	0	39.2	43.8	100	38.17	23	8.779	7	2.672
1900	203	0	190	1	9	3	0	0	0	0	0		1900	0	0	0	0	6	31	98	51	14	3	0	0	0	0	38.7	43.5	68	33.5	14	6.897	0	0
2000	149	2	141	0	1	5	0	0	0	0	0		2000	0	0	0	0	1	22	70	39	13	4	0	0	0	0	39.2	43.4	56	37.58	15	10.07	1	0.671
2100	106	1	100	0	3	2	0	0	0	0	0		2100	0	0	0	0	6	14	40	30	6	10	0	0	0	0	39.6	45	46	43.4	15	14.15	2	1.887
2200	63	0	62	0	0	1	0	0	0	0	0		2200	0	0	0	0	3	3	19	15	15	6	2	0	0	0	42.7	50	38	60.32	21	33.33	3	4.762
2300	54	0	53	0	0	1	0	0	0	0	0		2300	0	0	0	2	4	10	15	15	3	4	0	1	0	0	39	44.8	23	42.59	6	11.11	2	3.704
07-19	**4434**	**17**	**4191**	**7**	**185**	**29**	**0**	**1**	**1**	**2**	**1**		**07-19**	**0**	**1**	**7**	**5**	**84**	**756**	**2087**	**1095**	**295**	**97**	**5**	**1**	**1**	**0**	**38.7**	**43.1**	**1494**	**33.69**	**310**	**6.991**	**33**	**0.744**
06-22	**4931**	**20**	**4656**	**8**	**202**	**40**	**0**	**1**	**1**	**2**	**1**		**06-22**	**0**	**1**	**7**	**5**	**97**	**826**	**2316**	**1225**	**329**	**117**	**6**	**1**	**1**	**0**	**38.8**	**43.2**	**1679**	**34.05**	**359**	**7.28**	**37**	**0.75**
06-00	**5048**	**20**	**4771**	**8**	**202**	**42**	**0**	**1**	**1**	**2**	**1**		**06-00**	**0**	**1**	**7**	**7**	**104**	**839**	**2350**	**1255**	**347**	**127**	**8**	**2**	**1**	**0**	**38.8**	**43.3**	**1740**	**34.47**	**386**	**7.647**	**42**	**0.832**
00-00	**5371**	**23**	**5070**	**8**	**213**	**51**	**0**	**1**	**1**	**3**	**1**		**00-00**	**0**	**1**	**7**	**7**	**109**	**874**	**2475**	**1335**	**392**	**153**	**15**	**2**	**1**	**0**	**39**	**43.6**	**1898**	**35.34**	**446**	**8.304**	**56**	**1.043**

26 November 2018

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	]PSL 40	]PSL% 40	]SL1 46 ACPO	]SL1% 46 ACPO	]SL2 55 DFT	]SL2% 55 DFT
0000	27	0	23	0	2	2	0	0	0	0	0		0000	0	0	0	0	1	2	5	7	5	6	1	0	0	0	44.9	55	19	70.37	11	40.74	4	14.81
0100	16	0	13	0	1	2	0	0	0	0	0		0100	0	0	0	0	1	0	6	7	1	1	0	0	0	0	40.6	45.9	9	56.25	2	12.5	0	0
0200	16	0	11	0	5	0	0	0	0	0	0		0200	0	0	0	0	0	2	4	5	2	3	0	0	0	0	42.3	50.2	10	62.5	4	25	0	0
0300	11	0	9	0	1	1	0	0	0	0	0		0300	0	0	0	0	0	1	7	0	2	1	0	0	0	0	41	50.4	3	27.27	3	27.27	0	0
0400	14	1	10	0	2	0	0	0	0	0	1		0400	0	0	0	0	1	4	3	2	3	0	1	0	0	0	40.1	47.5	6	42.86	4	28.57	1	7.143
0500	71	0	65	0	3	3	0	0	0	0	0		0500	0	0	0	1	0	2	17	26	15	10	0	0	0	0	43	49.5	51	71.83	21	29.58	0	0
0600	215	1	197	0	16	1	0	0	0	0	0		0600	0	0	0	0	2	14	64	96	29	10	0	0	0	0	41.6	45.9	135	62.79	32	14.88	3	1.395
0700	561	1	519	1	31	5	1	0	0	1	2		0700	0	3	6	7	15	85	307	107	29	1	1	0	0	0	37.5	41.5	138	24.6	20	3.565	1	0.178
0800	675	2	615	1	47	6	2	0	1	1	0		0800	2	4	4	2	8	131	335	150	32	5	2	0	0	0	37.8	42.2	189	28	27	4	2	0.296
0900	472	3	420	0	42	5	2	0	0	0	0		0900	4	22	30	39	71	171	104	25	6	0	0	0	0	0	30.7	37.6	31	6.568	4	0.847	0	0
1000	403	1	332	4	52	10	2	1	1	0	0		1000	9	41	108	133	75	25	7	3	2	0	0	0	0	0	21.9	27.6	5	1.241	1	0.248	0	0
1100	422	1	365	1	47	4	1	0	2	0	1		1100	12	53	117	128	87	19	5	1	0	0	0	0	0	0	21	27.1	1	0.237	0	0	0	0
1200	449	1	384	0	53	9	1	0	0	0	1		1200	15	45	100	137	111	34	6	1	0	0	0	0	0	0	22	28.3	1	0.223	0	0	0	0
1300	435	0	387	1	34	10	1	1	0	1	0		1300	19	58	106	120	110	19	3	0	0	0	0	0	0	0	21	27.5	0	0	0	0	0	0
1400	436	3	375	2	44	10	0	0	0	1	1		1400	12	48	105	141	102	21	6	1	0	0	0	0	0	0	21.6	27.4	1	0.229	0	0	0	0
1500	627	2	559	1	58	4	2	0	1	0	0		1500	7	33	35	86	147	164	124	29	2	0	0	0	0	0	29.4	37.2	31	4.944	1	0.159	0	0
1600	858	3	772	3	78	1	0	0	1	0	0		1600	1	0	1	2	42	357	359	90	4	2	0	0	0	0	35.4	39.5	96	11.19	2	0.233	0	0
1700	904	4	858	1	38	2	1	0	0	0	0		1700	0	0	2	12	89	315	378	94	11	3	0	0	0	0	35.2	39.4	108	11.95	8	0.885	0	0
1800	756	1	720	1	32	0	1	0	0	0	1		1800	0	1	2	15	57	197	330	128	22	3	1	0	0	0	36.4	40.9	154	20.37	21	2.778	2	0.265
1900	435	6	400	2	24	3	0	0	0	0	0		1900	0	0	1	0	5	90	203	102	26	7	1	0	0	0	38.3	42.4	136	31.26	23	5.287	2	0.46
2000	260	1	242	0	10	5	0	0	1	0	1		2000	0	0	0	0	5	26	104	83	31	9	2	0	0	0	40.2	45.5	125	48.08	35	13.46	2	0.769
2100	233	0	225	0	3	5	0	0	0	0	0		2100	0	0	0	0	1	37	104	64	21	6	0	0	0	0	39.4	44	91	39.06	23	9.871	1	0.429
2200	153	2	138	0	5	8	0	0	0	0	0		2200	0	1	0	2	6	13	72	32	16	10	1	0	0	0	39.7	46.5	59	38.56	23	15.03	4	2.614
2300	65	0	61	0	0	4	0	0	0	0	0		2300	0	0	0	0	0	10	28	14	12	1	0	0	0	0	39.8	45.2	27	41.54	6	9.231	0	0
07-19	**6998**	**22**	**6306**	**16**	**556**	**66**	**14**	**2**	**6**	**4**	**6**		**07-19**	**81**	**308**	**616**	**822**	**914**	**1538**	**1964**	**629**	**108**	**14**	**4**	**0**	**0**	**0**	**30.8**	**39.1**	**755**	**10.79**	**84**	**1.2**	**5**	**0.071**
06-22	**8141**	**30**	**7370**	**18**	**609**	**80**	**14**	**2**	**7**	**4**	**7**		**06-22**	**81**	**308**	**617**	**822**	**927**	**1705**	**2439**	**974**	**215**	**46**	**7**	**0**	**0**	**0**	**32**	**40**	**1242**	**15.26**	**197**	**2.42**	**13**	**0.16**
06-00	**8359**	**32**	**7569**	**18**	**614**	**92**	**14**	**2**	**7**	**4**	**7**		**06-00**	**81**	**309**	**617**	**824**	**933**	**1728**	**2539**	**1020**	**243**	**57**	**8**	**0**	**0**	**0**	**32.2**	**40.2**	**1328**	**15.89**	**226**	**2.704**	**17**	**0.203**
00-00	**8514**	**33**	**7700**	**18**	**628**	**100**	**14**	**2**	**7**	**4**	**8**		**00-00**	**81**	**309**	**617**	**825**	**936**	**1739**	**2581**	**1067**	**271**	**78**	**10**	**0**	**0**	**0**	**32.4**	**40.4**	**1426**	**16.75**	**271**	**3.183**	**22**	**0.258**

Virtual Day (7)

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	]PSL 40	]PSL% 40	]SL1 46 ACPO	]SL1% 46 ACPO	]SL2 55 DFT	]SL2% 55 DFT
0000	63	0	56	0	4	2	0	0	0	0	0		0000	0	0	0	0	2	7	22	16	8	6	1	0	0	0	41.4	48.2	32	50.23	13	20.59	3	4.977
0100	39	0	34	0	3	1	0	0	0	0	0		0100	0	0	0	0	1	3	11	14	6	4	0	0	0	0	41.8	47.7	23	60.29	8	19.49	1	2.206
0200	25	0	21	0	3	0	0	0	0	0	0		0200	0	0	0	0	1	3	9	5	3	3	0	0	0	0	41.5	50	12	49.71	6	24.86	1	5.202
0300	18	0	15	0	2	1	0	0	0	0	0		0300	0	0	0	0	0	2	5	5	3	2	0	0	0	0	42.3	49.7	10	58.4	5	29.6	1	3.2
0400	24	0	20	0	2	0	0	0	0	0	1		0400	0	0	0	0	1	3	10	5	3	1	1	0	0	0	40.4	47.5	10	41.32	4	18.56	1	5.389
0500	59	1	49	0	6	2	0	0	0	0	0		0500	0	0	0	0	1	3	14	20	11	9	1	0	0	0	44	51.4	41	70	19	32.68	5	7.805
0600	170	1	153	0	13	4	0	0	0	0	0		0600	0	0	0	0	1	11	67	66	19	6	0	0	0	0	40.8	45	92	53.73	20	11.9	2	1.174
0700	438	2	409	0	20	7	0	0	0	0	0		0700	0	1	1	3	10	85	214	100	18	5	1	0	0	0	37.9	41.9	123	28.16	18	4.009	2	0.391
0800	555	2	516	1	26	9	1	0	1	0	1		0800	1	1	1	5	21	123	267	105	24	7	0	0	0	0	37.4	41.7	136	24.43	23	4.167	2	0.309
0900	443	2	400	0	31	7	1	0	1	0	1		0900	10	19	26	24	34	98	150	64	13	4	0	0	0	0	33.1	40.8	81	18.36	14	3.098	1	0.323
1000	437	2	392	1	32	8	1	0	0	0	1		1000	14	43	65	74	43	50	98	40	8	2	0	0	0	0	27.7	39.1	50	11.44	8	1.765	1	0.131
1100	473	1	431	1	31	7	1	1	0	0	1		1100	15	50	82	76	53	63	84	41	8	2	0	0	0	0	26.9	38.6	50	10.59	7	1.388	1	0.151
1200	507	1	462	1	33	7	1	0	0	1	1		1200	18	57	84	90	64	62	89	33	8	2	0	0	0	0	26.3	37.9	42	8.371	7	1.381	0	0.085
1300	478	1	433	1	33	8	0	1	0	0	0		1300	22	55	83	83	59	51	86	30	7	3	0	0	0	0	26	38.1	40	8.333	8	1.583	1	0.209
1400	470	2	424	1	35	6	1	1	0	0	1		1400	19	50	87	96	55	45	75	34	8	1	0	0	0	0	25.7	38.1	43	9.201	7	1.488	1	0.121
1500	585	3	534	2	38	6	1	0	0	0	1		1500	16	28	31	46	72	147	176	54	11	3	0	0	0	0	31.5	39.2	68	11.55	9	1.612	0	0.073
1600	752	3	696	2	41	8	1	0	0	0	0		1600	0	0	1	3	59	296	306	75	9	2	0	0	0	0	35.3	39.3	87	11.52	9	1.139	0	0.057
1700	772	2	734	0	29	6	0	0	0	0	0		1700	0	0	2	3	47	259	350	94	14	3	0	0	0	0	36	39.9	112	14.5	13	1.665	0	0.037
1800	654	2	625	1	20	5	0	0	0	0	1		1800	0	0	0	5	35	171	310	111	18	4	0	0	0	0	36.8	40.9	133	20.32	16	2.467	2	0.327
1900	426	2	400	1	15	7	0	0	0	0	0		1900	0	0	0	0	13	78	214	93	20	6	0	0	0	0	38	42.1	120	28.22	21	4.96	1	0.335
2000	259	1	242	0	7	7	0	0	0	0	1		2000	0	0	1	1	7	41	112	69	20	7	1	0	0	0	39.1	43.7	98	37.93	23	8.835	3	1.049
2100	199	0	187	0	5	5	0	0	0	0	0		2100	0	0	0	0	4	32	92	51	13	6	0	0	0	0	39	43.3	71	35.78	16	8.046	2	0.934
2200	156	1	147	0	3	5	0	0	0	0	0		2200	0	0	0	1	3	21	69	40	14	7	1	0	0	0	39.5	44.6	61	39.27	17	10.73	2	1.468
2300	119	0	113	0	4	2	0	0	0	0	0		2300	0	0	0	0	1	20	47	33	10	6	1	0	0	0	39.9	44.9	51	42.51	14	11.86	3	2.515
07-19	**6566**	**22**	**6055**	**12**	**370**	**83**	**8**	**3**	**4**	**3**	**6**		**07-19**	**115**	**306**	**464**	**509**	**552**	**1452**	**2204**	**781**	**144**	**37**	**3**	**0**	**0**	**0**	**32.2**	**39.9**	**965**	**14.7**	**137**	**2.091**	**11**	**0.174**
06-22	**7621**	**26**	**7038**	**13**	**410**	**106**	**9**	**3**	**5**	**4**	**7**		**06-22**	**115**	**306**	**465**	**510**	**576**	**1614**	**2689**	**1061**	**217**	**62**	**5**	**1**	**0**	**0**	**33.1**	**40.5**	**1347**	**17.67**	**218**	**2.855**	**19**	**0.255**
06-00	**7896**	**27**	**7298**	**13**	**418**	**113**	**9**	**3**	**5**	**4**	**7**		**06-00**	**115**	**306**	**465**	**511**	**581**	**1655**	**2805**	**1133**	**242**	**75**	**6**	**1**	**0**	**0**	**33.4**	**40.7**	**1458**	**18.47**	**248**	**3.146**	**25**	**0.313**
00-00	**8123**	**29**	**7493**	**13**	**439**	**119**	**9**	**3**	**5**	**5**	**9**		**00-00**	**115**	**306**	**465**	**511**	**586**	**1676**	**2876**	**1198**	**276**	**101**	**11**	**1**	**1**	**0**	**33.6**	**40.9**	**1587**	**19.54**	**304**	**3.743**	**36**	**0.448**

Virtual Week (1)

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	]PSL 40	]PSL% 40	]SL1 46 ACPO	]SL1% 46 ACPO	]SL2 55 DFT	]SL2% 55 DFT
Mon	8514	33	7700	18	628	100	14	2	7	4	8		Mon	81	309	617	825	936	1739	2581	1067	271	78	10	0	0	0	32.4	40.4	1426	16.75	271	3.183	22	0.258
Tue	8847	23	8187	15	372	215	10	3	3	4	15		Tue	186	396	594	573	676	2063	3047	1040	194	67	8	1	2	0	32.5	40	1312	14.83	208	2.351	25	0.283
Wed	8937	32	8237	12	411	205	13	6	7	4	10		Wed	151	361	512	590	628	1881	3086	1365	264	91	7	0	0	1	33.3	40.8	1728	19.34	284	3.178	33	0.369
Thu	9093	29	8420	11	466	129	14	3	6	5	10		Thu	198	528	686	867	831	1791	2903	973	215	87	11	3	0	0	31.5	39.8	1289	14.18	247	2.716	34	0.374
Fri	9061	41	8293	21	589	79	9	6	5	8	10		Fri	188	547	833	711	702	1844	2741	1159	226	97	9	3	0	1	31.6	40.4	1495	16.5	257	2.836	32	0.353
|Sat	7036	19	6545	7	391	57	1	2	4	4	6		|Sat	0	3	4	7	222	1541	3297	1445	369	131	14	1	2	0	38	42.2	1962	27.89	415	5.898	53	0.753
|Sun	5371	23	5070	8	213	51	0	1	1	3	1		|Sun	0	1	7	7	109	874	2475	1335	392	153	15	2	1	0	39	43.6	1898	35.34	446	8.304	56	1.043
--	**56859**	**200**	**52452**	**92**	**3070**	**836**	**61**	**23**	**33**	**32**	**60**		**--**	**804**	**2145**	**3253**	**3580**	**4104**	**11733**	**20130**	**8384**	**1931**	**704**	**74**	**10**	**5**	**2**	**33.6**	**40.9**	**11110**	**19.54**	**2128**	**3.743**	**255**	**0.448**

Grand Total

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	]PSL 40	]PSL% 40	]SL1 46 ACPO	]SL1% 46 ACPO	]SL2 55 DFT	]SL2% 55 DFT
--	**56859**	**200**	**52452**	**92**	**3070**	**836**	**61**	**23**	**33**	**32**	**60**		**--**	**804**	**2145**	**3253**	**3580**	**4104**	**11733**	**20130**	**8384**	**1931**	**704**	**74**	**10**	**5**	**2**	**33.6**	**40.9**	**11110**	**19.54**	**2128**	**3.743**	**255**	**0.448**

Virtual Weekday

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	]PSL 40	]PSL% 40	]SL1 46 ACPO	]SL1% 46 ACPO	]SL2 55 DFT	]SL2% 55 DFT
0000	43	0	36	0	4	2	0	0	0	0	0		0000	0	0	0	0	2	7	22	16	8	6	1	0	0	0	41.4	48.2	32	50.23	13	20.59	3	4.977
0100	22	0	17	0	3	1	0	0	0	0	0		0100	0	0	0	0	1	3	11	14	6	4	0	0	0	0	41.8	47.7	23	60.29	8	19.49	1	2.206
0200	15	0	11	0	3	0	0	0	0	0	0		0200	0	0	0	0	1	3	9	5	3	3	0	0	0	0	41.5	50	12	49.71	6	24.86	1	5.202
0300	17	0	14	0	2	1	0	0	0	0	0		0300	0	0	0	0	0	2	5	5	3	2	0	0	0	0	42.3	49.7	10	58.4	5	29.6	1	3.2
0400	25	0	20	0	3	1	0	0	0	0	1		0400	0	0	0	0	1	3	10	5	3	1	1	0	0	0	40.4	47.5	10	41.32	4	18.56	1	5.389
0500	71	1	59	0	7	3	0	0	0	0	0		0500	0	0	0	0	1	3	14	20	11	9	1	0	0	0	44	51.4	41	70	19	32.68	5	7.805
0600	213	1	192	0	16	4	0	0	0	0	0		0600	0	0	0	0	1	11	67	66	19	6	0	0	0	0	40.8	45	92	53.73	20	11.9	2	1.174
0700	566	2	530	1	24	8	0	0	0	0	1		0700	0	1	1	3	10	85	214	100	18	5	1	0	0	0	37.9	41.9	123	28.16	18	4.009	2	0.391
0800	674	2	627	1	31	11	1	0	1	0	1		0800	1	1	1	5	21	123	267	105	24	7	0	0	0	0	37.4	41.7	136	24.43	23	4.167	2	0.309
0900	470	1	422	1	34	9	1	0	1	0	1		0900	10	19	26	24	34	98	150	64	13	4	0	0	0	0	33.1	40.8	81	18.36	14	3.098	1	0.323
1000	421	2	372	1	34	10	1	1	0	0	1		1000	14	43	65	74	43	50	98	40	8	2	0	0	0	0	27.7	39.1	50	11.44	8	1.765	1	0.131
1100	438	1	392	1	33	7	1	1	1	0	1		1100	15	50	82	76	53	63	84	41	8	2	0	0	0	0	26.9	38.6	50	10.59	7	1.388	1	0.151
1200	462	1	411	1	36	9	2	0	0	1	1		1200	18	57	84	90	64	62	89	33	8	2	0	0	0	0	26.3	37.9	42	8.371	7	1.381	0	0.085
1300	446	1	395	2	36	10	1	1	1	0	1		1300	22	55	83	83	59	51	86	30	7	3	0	0	0	0	26	38.1	40	8.333	8	1.583	1	0.209
1400	472	2	419	1	39	7	1	1	0	0	1		1400	19	50	87	96	55	45	75	34	8	1	0	0	0	0	25.7	38.1	43	9.201	7	1.488	1	0.121
1500	646	3	587	2	44	8	2	0	0	0	0		1500	16	28	31	46	72	147	176	54	11	3	0	0	0	0	31.5	39.2	68	11.55	9	1.612	0	0.073
1600	883	4	814	3	50	10	1	0	0	0	0		1600	0	0	1	3	59	296	306	75	9	2	0	0	0	0	35.3	39.3	87	11.52	9	1.139	0	0.057
1700	926	3	881	1	33	7	0	0	0	1	0		1700	0	0	2	3	47	259	350	94	14	3	0	0	0	0	36	39.9	112	14.5	13	1.665	0	0.037
1800	775	2	741	1	24	7	1	0	0	0	1		1800	0	0	0	5	35	171	310	111	18	4	0	0	0	0	36.8	40.9	133	20.32	16	2.467	2	0.327
1900	492	3	463	1	16	9	0	0	0	0	0		1900	0	0	0	0	13	78	214	93	20	6	0	0	0	0	38	42.1	120	28.22	21	4.96	1	0.335
2000	293	2	274	0	7	8	0	0	0	0	1		2000	0	0	1	1	7	41	112	69	20	7	1	0	0	0	39.1	43.7	98	37.93	23	8.835	3	1.049
2100	223	0	210	0	6	7	0	0	0	0	0		2100	0	0	0	0	4	32	92	51	13	6	0	0	0	0	39	43.3	71	35.78	16	8.046	2	0.934
2200	176	1	166	0	3	6	0	0	0	0	0		2200	0	0	0	1	3	21	69	40	14	7	1	0	0	0	39.5	44.6	61	39.27	17	10.73	2	1.468
2300	122	0	116	0	4	2	0	0	0	0	0		2300	0	0	0	0	1	20	47	33	10	6	1	0	0	0	39.9	44.9	51	42.51	14	11.86	3	2.515
07-19	7179	23	6590	14	418	103	11	4	5	4	8		**07-19**	**115**	**306**	**464**	**509**	**552**	**1452**	**2204**	**781**	**144**	**37**	**3**	**0**	**0**	**0**	**32.2**	**39.9**	**965**	**14.7**	**137**	**2.091**	**11**	**0.174**
06-22	8400	29	7728	15	462	130	12	4	5	4	9		**06-22**	**115**	**306**	**465**	**510**	**576**	**1614**	**2689**	**1061**	**217**	**62**	**5**	**1**	**0**	**0**	**33.1**	**40.5**	**1347**	**17.67**	**218**	**2.855**	**19**	**0.255**
06-00	8698	30	8010	15	470	138	12	4	5	4	9		**06-00**	**115**	**306**	**465**	**511**	**581**	**1655**	**2805**	**1133**	**242**	**75**	**6**	**1**	**0**	**0**	**33.4**	**40.7**	**1458**	**18.47**	**248**	**3.146**	**25**	**0.313**
00-00	8890	32	8167	15	493	146	12	4	6	5	11		**00-00**	**115**	**306**	**465**	**511**	**586**	**1676**	**2876**	**1198**	**276**	**101**	**11**	**1**	**1**	**0**	**33.6**	**40.9**	**1587**	**19.54**	**304**	**3.743**	**36**	**0.448**

Advanced Transport Research

Globals

Report Id	CustomList-2263
Descriptor	Advanced Transport Research
Created by	MetroCount Traffic Executive
Creation Time (UTC)	2018-11-30T11:19:19
Legal	Copyright (c)1997 - 2016 MetroCount
Graphic	header.gif
Language	English
Country	United Kingdom
Time	UTC + 0 min
Create Version	5.0.1.0
Metric	Non metric
Speed Unit	mph
Length Unit	ft
Mass Unit	ton

Dataset

Site Name	18993-001
Site Attribute	WSP
File Name	Q:\18993 A1023 Chelmsford Road, Shenfield\18993-001 0 2018-11-29 1337.EC0
File Type	Plus
Algorithm	Factory default axle
Description	Chelmsford road [40m]
Lane	0
Direction	6
Direction Text	6 - West bound A]B, East bound B]A.
Layout Text	Axle sensors - Paired (Class/Speed/Count)
Setup Time	2018-11-19T10:09:54
Start Time	2018-11-19T10:09:54
Finish Time	2018-11-29T13:37:54
Operator	ATR
Configuration	40 MC5600 00 00 00 00 00 ? FW98GPGS MC56-L5 [MC55] (c)Microcom 19Oct04

Profile

Name	Advanced Transport Research
Title	Advanced Transport Research
Graphic Logo	C:and SettingsDocuments3.21_on_us_logo_cmyk 50.BMP
Header	
Footer	
Percentile 1	85
Percentile 2	95
Pace	12
Filter Start	2018-11-20T00:00:00
Filter End	2018-11-27T00:00:00
Class Scheme	ARX
F	Cls(1-10) Dir(W) Sp(0,120) Headway(]0) Span(0 - 328.084) Lane(0-16)
Low Speed	0
High Speed	120
Posted Limit	40
Speed Limits	46 55 40 40 40 0 0 0 0 40
Separation	0.000
Separation Type	Headway
Direction	West
Encoded Direction	8

Advanced Transport Research

Column	
Time	24-hour time (0000 - 2359)
Total	Number in time step
Cls 1	Class totals
Cls 2	Class totals
Cls 3	Class totals
Cls 4	Class totals
Cls 5	Class totals
Cls 6	Class totals
Cls 7	Class totals
Cls 8	Class totals
Cls 9	Class totals
Cls 10	Class totals
Fix1	User defined fixed text
Time	24-hour time (0000 - 2359)
Vbin 0 10	Speed bin totals
Vbin 10 15	Speed bin totals
Vbin 15 20	Speed bin totals
Vbin 20 25	Speed bin totals
Vbin 25 30	Speed bin totals
Vbin 30 35	Speed bin totals
Vbin 35 40	Speed bin totals
Vbin 40 45	Speed bin totals
Vbin 45 50	Speed bin totals
Vbin 50 60	Speed bin totals
Vbin 60 70	Speed bin totals
Vbin 70 80	Speed bin totals
Vbin 80 90	Speed bin totals
Vbin 90 100	Speed bin totals
Mean	Average speed
Vpp 85	Percentile speed
]PSL 40	Number exceeding Posted Speed Limit
]PSL% 40	Percent exceeding Posted Speed Limit
]SL1 46 ACPO	Number exceeding Speed Limit 1
]SL1% 46 ACPO	Percent exceeding Speed Limit 1
]SL2 55 DFT	Number exceeding Speed Limit 2
]SL2% 55 DFT	Percent exceeding Speed Limit 2

Advanced Transport Research

Report Id - CustomList-2263
Site Name - 18993-001
Description - Chelmsford road [40m]
Direction - West

20 November 2018

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	]PSL 40	]PSL% 40	]SL1 46 ACPO	]SL1% 46 ACPO	]SL2 55 DFT	]SL2% 55 DFT
0000	28	0	24	0	4	0	0	0	0	0	0		0000	0	0	0	0	1	10	5	8	2	0	2	0	0	0	39.7	45.2	12	42.86	3	10.71	2	7.143
0100	16	0	11	0	5	0	0	0	0	0	0		0100	0	0	1	0	0	5	5	3	1	1	0	0	0	0	37.8	47	5	31.25	2	12.5	0	0
0200	11	0	7	0	2	0	0	0	0	1	1		0200	0	0	0	0	3	1	5	2	0	0	0	0	0	0	35.4	43.6	2	18.18	0	0	0	0
0300	15	1	11	0	3	0	0	0	0	0	0		0300	0	0	0	1	0	3	10	0	1	0	0	0	0	0	36.3	39.6	1	6.667	1	6.667	0	0
0400	33	2	24	0	7	0	0	0	0	0	0		0400	0	0	1	0	5	10	5	9	2	1	0	0	0	0	36.4	43.1	12	36.36	3	9.091	0	0
0500	105	1	90	0	14	0	0	0	0	0	0		0500	0	0	2	0	1	4	33	37	19	9	0	0	0	0	41.8	48.3	65	61.9	21	20	3	2.857
0600	435	4	381	1	45	0	1	0	2	0	1		0600	0	0	5	7	12	87	215	94	12	3	0	0	0	0	37.1	41.4	109	25.06	11	2.529	0	0
0700	1178	4	1084	13	68	2	3	1	2	0	1		0700	0	0	1	94	337	516	213	17	0	0	0	0	0	0	31.3	35.7	17	1.443	0	0	0	0
0800	1173	5	1081	23	49	2	7	1	2	0	3		0800	24	41	90	255	342	312	103	5	0	1	0	0	0	0	27	33.8	6	0.512	1	0.085	0	0
0900	640	0	583	1	51	2	0	0	1	1	1		0900	0	0	12	33	136	264	167	27	1	0	0	0	0	0	32.4	37.2	28	4.375	1	0.156	0	0
1000	469	0	417	1	47	1	0	0	0	2	1		1000	0	1	7	37	225	157	35	5	2	0	0	0	0	0	29.6	33.3	7	1.493	1	0.213	0	0
1100	443	1	397	1	35	5	1	0	0	0	3		1100	0	1	0	47	177	188	28	2	0	0	0	0	0	0	29.7	33.3	2	0.451	0	0	0	0
1200	442	0	394	0	45	1	1	0	0	1	0		1200	0	1	6	48	231	122	32	1	1	0	0	0	0	0	29	32.7	2	0.452	1	0.226	0	0
1300	475	2	423	1	42	3	1	1	0	1	1		1300	6	30	83	134	159	52	11	0	0	0	0	0	0	0	23.9	29.8	0	0	0	0	0	0
1400	549	0	508	1	36	1	2	0	0	0	1		1400	2	14	28	112	189	151	46	6	1	0	0	0	0	0	28	33.6	7	1.275	0	0	0	0
1500	596	1	557	2	30	2	0	0	1	2	1		1500	0	0	3	13	41	257	246	29	6	1	0	0	0	0	34.5	38.1	36	6.04	7	1.174	0	0
1600	675	1	637	1	34	0	0	0	2	0	0		1600	0	0	0	3	74	295	268	31	4	0	0	0	0	0	34.4	38	35	5.185	2	0.296	0	0
1700	720	2	696	2	19	1	0	0	0	0	0		1700	0	0	1	0	56	354	276	29	4	0	0	0	0	0	34.5	37.7	33	4.583	3	0.417	0	0
1800	572	0	558	1	13	0	0	0	0	0	0		1800	0	0	0	1	43	251	217	52	6	2	0	0	0	0	35.1	38.5	60	10.49	6	1.049	0	0
1900	423	1	406	2	12	0	1	0	0	0	1		1900	0	0	3	6	28	146	189	46	5	0	0	0	0	0	35.4	39.5	51	12.06	3	0.709	0	0
2000	255	0	250	0	5	0	0	0	0	0	0		2000	0	0	0	1	15	69	132	29	8	1	0	0	0	0	36.5	40	38	14.9	6	2.353	0	0
2100	189	0	182	1	5	1	0	0	0	0	0		2100	0	0	0	0	11	32	90	43	12	1	0	0	0	0	37.7	42.1	56	29.63	9	4.762	0	0
2200	216	0	212	1	3	0	0	0	0	0	0		2200	0	0	0	2	20	66	90	32	5	1	0	0	0	0	36.1	40.5	38	17.59	6	2.778	1	0.463
2300	119	0	112	0	6	0	0	0	0	0	1		2300	0	0	0	0	7	33	52	21	5	0	1	0	0	0	37.1	41.8	27	22.69	5	4.202	1	0.84
07-19	**7932**	**16**	**7335**	**47**	**469**	**20**	**15**	**3**	**8**	**7**	**12**		**07-19**	**32**	**88**	**231**	**777**	**2010**	**2919**	**1642**	**204**	**25**	**4**	**0**	**0**	**0**	**0**	**30.8**	**36.4**	**233**	**2.937**	**22**	**0.277**	**0**	**0**
06-22	**9234**	**21**	**8554**	**51**	**536**	**21**	**17**	**3**	**10**	**7**	**14**		**06-22**	**32**	**88**	**239**	**791**	**2076**	**3253**	**2268**	**416**	**62**	**9**	**0**	**0**	**0**	**0**	**31.6**	**37.2**	**487**	**5.274**	**51**	**0.552**	**0**	**0**
06-00	**9569**	**21**	**8878**	**52**	**545**	**21**	**17**	**3**	**10**	**7**	**15**		**06-00**	**32**	**88**	**239**	**793**	**2103**	**3352**	**2410**	**469**	**72**	**10**	**1**	**0**	**0**	**0**	**31.8**	**37.4**	**552**	**5.769**	**62**	**0.648**	**2**	**0.021**
00-00	**9777**	**25**	**9045**	**52**	**580**	**21**	**17**	**3**	**10**	**8**	**16**		**00-00**	**32**	**88**	**243**	**794**	**2113**	**3385**	**2473**	**528**	**97**	**21**	**3**	**0**	**0**	**0**	**32**	**37.6**	**649**	**6.638**	**92**	**0.941**	**7**	**0.072**

21 November 2018

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	]PSL 40	]PSL% 40	]SL1 46 ACPO	]SL1% 46 ACPO	]SL2 55 DFT	]SL2% 55 DFT
0000	40	0	33	0	6	0	0	0	1	0	0		0000	0	0	0	1	3	4	16	13	2	1	0	0	0	0	38.1	41.8	16	40	1	2.5	1	2.5
0100	22	0	16	0	6	0	0	0	0	0	0		0100	0	0	0	0	2	2	9	7	0	2	0	0	0	0	39	44.1	9	40.91	2	9.091	0	0
0200	9	0	8	0	0	0	0	0	0	0	1		0200	0	0	0	0	0	1	4	1	2	0	1	0	0	0	43.3	-	4	44.44	3	33.33	1	11.11
0300	19	0	12	0	7	0	0	0	0	0	0		0300	0	0	0	0	0	3	9	6	1	0	0	0	0	0	38.6	42.2	7	36.84	1	5.263	0	0
0400	44	2	33	0	7	1	0	0	1	0	0		0400	0	0	1	0	1	4	19	12	7	0	0	0	0	0	39.6	46	19	43.18	6	13.64	0	0
0500	114	0	94	0	13	1	3	0	1	0	2		0500	0	0	0	0	1	14	44	39	10	6	0	0	0	0	40	44.7	55	48.25	11	9.649	1	0.877
0600	664	6	568	0	81	2	3	0	0	1	3		0600	0	1	2	15	91	290	191	59	11	4	0	0	0	0	34.3	39	74	11.14	10	1.506	0	0
0700	1269	4	1149	8	90	5	1	1	3	5	3		0700	0	0	6	70	449	590	146	8	0	0	0	0	0	0	30.8	34.7	8	0.63	0	0	0	0
0800	1150	3	1043	27	62	4	8	1	1	0	1		0800	8	43	109	246	312	270	136	23	2	0	0	0	0	1	27.6	34.8	26	2.261	2	0.174	1	0.087
0900	459	2	421	1	33	0	0	1	0	1	0		0900	1	0	2	10	57	154	180	49	5	1	0	0	0	0	34.8	39.6	55	11.98	5	1.089	0	0
1000	536	1	469	2	55	3	3	0	1	1	1		1000	0	0	3	10	118	213	165	27	0	0	0	0	0	0	33.2	37.6	27	5.037	0	0	0	0
1100	489	1	443	0	40	3	2	0	0	0	0		1100	0	8	9	56	193	174	44	5	0	0	0	0	0	0	29.3	33.9	5	1.022	0	0	0	0
1200	475	1	426	1	38	5	1	1	0	2	0		1200	0	0	13	50	200	164	42	1	5	0	0	0	0	0	29.5	33.6	6	1.263	2	0.421	0	0
1300	469	3	413	1	45	4	1	0	1	1	0		1300	0	1	4	47	214	158	29	12	4	0	0	0	0	0	29.8	33.5	16	3.412	1	0.213	0	0
1400	524	2	451	1	63	1	3	0	0	1	2		1400	1	2	7	39	244	177	46	6	1	1	0	0	0	0	29.8	34.1	8	1.527	1	0.191	0	0
1500	585	2	536	2	42	1	1	0	0	1	0		1500	0	0	12	56	162	187	137	24	7	0	0	0	0	0	31.6	37.4	31	5.299	6	1.026	0	0
1600	578	2	537	2	35	0	1	0	0	0	1		1600	0	0	0	0	11	216	293	54	2	2	0	0	0	0	36	39.3	58	10.03	2	0.346	0	0
1700	702	2	670	2	26	2	0	0	0	0	0		1700	0	0	0	9	45	273	310	57	8	0	0	0	0	0	35.2	38.8	65	9.259	4	0.57	0	0
1800	623	2	606	1	11	1	1	0	0	0	1		1800	0	0	2	3	28	226	291	64	8	1	0	0	0	0	35.7	39.4	73	11.72	5	0.803	0	0
1900	462	0	444	1	13	1	1	2	0	0	0		1900	0	0	0	1	22	142	211	72	12	2	0	0	0	0	36.6	41	86	18.61	9	1.948	1	0.216
2000	344	1	336	1	6	0	0	0	0	0	0		2000	0	0	0	0	18	106	158	48	13	1	0	0	0	0	36.6	40.8	62	18.02	9	2.616	1	0.291
2100	234	0	227	1	6	0	0	0	0	0	0		2100	0	0	0	0	12	65	108	37	10	2	0	0	0	0	36.9	41.4	49	20.94	8	3.419	0	0
2200	162	2	160	0	0	0	0	0	0	0	0		2200	0	0	1	0	6	42	63	36	9	5	0	0	0	0	38	43.1	50	30.86	11	6.79	2	1.235
2300	93	0	89	1	3	0	0	0	0	0	0		2300	0	0	0	0	4	15	48	17	8	1	0	0	0	0	38.5	43.1	26	27.96	8	8.602	0	0
07-19	**7859**	**25**	**7164**	**48**	**540**	**29**	**22**	**4**	**6**	**12**	**9**		**07-19**	**10**	**54**	**167**	**596**	**2033**	**2802**	**1819**	**330**	**42**	**5**	**0**	**0**	**0**	**1**	**31.7**	**37.1**	**378**	**4.81**	**28**	**0.356**	**1**	**0.013**
06-22	**9563**	**32**	**8739**	**51**	**646**	**32**	**26**	**6**	**6**	**13**	**12**		**06-22**	**10**	**55**	**169**	**612**	**2176**	**3405**	**2487**	**546**	**88**	**14**	**0**	**0**	**0**	**1**	**32.4**	**37.8**	**649**	**6.787**	**64**	**0.669**	**3**	**0.031**
06-00	**9818**	**34**	**8988**	**52**	**649**	**32**	**26**	**6**	**6**	**13**	**12**		**06-00**	**10**	**55**	**170**	**612**	**2186**	**3462**	**2598**	**599**	**105**	**20**	**0**	**0**	**0**	**1**	**32.5**	**38**	**725**	**7.384**	**83**	**0.845**	**5**	**0.051**
00-00	**10066**	**36**	**9184**	**52**	**688**	**34**	**29**	**6**	**9**	**13**	**15**		**00-00**	**10**	**55**	**171**	**613**	**2193**	**3490**	**2699**	**677**	**127**	**29**	**1**	**0**	**0**	**1**	**32.7**	**38.3**	**835**	**8.295**	**107**	**1.063**	**8**	**0.079**

22 November 2018

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	]PSL 40	]PSL% 40	]SL1 46 ACPO	]SL1% 46 ACPO	]SL2 55 DFT	]SL2% 55 DFT
0000	39	0	31	0	8	0	0	0	0	0	0		0000	0	0	0	0	1	7	17	9	4	1	0	0	0	0	38.7	41.6	14	35.9	5	12.82	0	0
0100	21	0	19	0	1	0	0	0	0	0	1		0100	0	0	0	0	0	7	5	8	1	0	0	0	0	0	38.2	44	9	42.86	1	4.762	0	0
0200	8	0	7	0	1	0	0	0	0	0	0		0200	0	0	0	0	0	2	2	2	1	1	0	0	0	0	39.9	-	4	50	2	25	0	0
0300	15	0	10	0	4	0	0	0	1	0	0		0300	0	0	0	0	2	3	1	5	4	0	0	0	0	0	39.4	46.2	9	60	2	13.33	0	0
0400	35	2	29	0	4	0	0	0	0	0	0		0400	0	1	0	0	0	6	11	11	5	0	1	0	0	0	39.3	45.8	17	48.57	4	11.43	1	2.857
0500	102	2	83	0	11	0	2	0	2	2	0		0500	0	1	0	1	1	12	33	31	11	11	1	0	0	0	41	48.3	54	52.94	21	20.59	2	1.961
0600	453	6	398	2	43	1	2	0	0	0	1		0600	0	0	2	1	22	142	212	62	11	1	0	0	0	0	36.3	40.3	74	16.34	4	0.883	0	0
0700	1174	3	1076	11	74	4	6	0	0	0	0		0700	8	8	29	202	318	373	207	29	0	0	0	0	0	0	29.8	35.7	29	2.47	0	0	0	0
0800	1019	4	951	6	50	2	0	3	2	1	0		0800	0	0	9	73	222	440	221	48	6	0	0	0	0	0	32.2	36.9	54	5.299	2	0.196	0	0
0900	647	0	584	1	54	2	2	1	0	3	0		0900	0	0	0	22	62	241	269	47	6	0	0	0	0	0	34.6	38.7	53	8.192	2	0.309	0	0
1000	541	1	481	2	51	1	1	0	2	2	0		1000	0	0	0	47	239	182	67	4	2	0	0	0	0	0	30.1	34.4	6	1.109	1	0.185	0	0
1100	462	2	401	0	56	0	1	0	1	0	1		1100	1	0	6	68	210	140	31	6	0	0	0	0	0	0	28.9	32.9	6	1.299	0	0	0	0
1200	477	1	426	3	45	0	1	0	1	0	0		1200	1	0	18	45	220	160	27	5	1	0	0	0	0	0	29.1	33.1	6	1.258	1	0.21	0	0
1300	497	1	434	0	58	2	1	0	1	0	0		1300	0	0	19	36	233	161	41	6	1	0	0	0	0	0	29.4	33.6	7	1.408	1	0.201	0	0
1400	536	0	486	0	46	1	2	0	0	0	1		1400	0	0	4	94	248	161	27	1	0	0	0	1	0	0	28.7	32.4	2	0.373	1	0.187	1	0.187
1500	578	1	540	0	33	1	1	0	0	0	2		1500	3	2	13	57	246	212	40	4	1	0	0	0	0	0	29.3	33.5	5	0.865	0	0	0	0
1600	665	0	632	2	30	1	0	0	0	0	0		1600	0	0	0	10	139	391	114	9	2	0	0	0	0	0	32.3	35.5	11	1.654	0	0	0	0
1700	710	0	681	2	27	0	0	0	0	0	0		1700	0	0	0	5	47	323	286	45	4	0	0	0	0	0	34.8	38.4	49	6.901	3	0.423	0	0
1800	577	2	559	2	14	0	0	0	0	0	0		1800	0	0	1	0	53	201	262	55	4	1	0	0	0	0	35.4	39.4	60	10.4	4	0.693	0	0
1900	412	1	393	0	17	1	0	0	0	0	0		1900	0	0	0	3	30	115	183	70	10	1	0	0	0	0	36.5	40.7	81	19.66	7	1.699	0	0
2000	291	2	276	0	11	1	0	1	0	0	0		2000	0	0	0	1	18	64	137	54	16	1	0	0	0	0	37.4	41.4	71	24.4	8	2.749	0	0
2100	170	0	164	0	6	0	0	0	0	0	0		2100	0	0	0	0	7	37	71	44	9	2	0	0	0	0	37.9	42.5	55	32.35	9	5.294	0	0
2200	176	1	169	0	6	0	0	0	0	0	0		2200	0	0	0	1	8	47	73	38	7	2	0	0	0	0	37.4	42.1	47	26.7	8	4.545	1	0.568
2300	109	0	109	0	0	0	0	0	0	0	0		2300	0	1	0	0	2	18	45	31	9	3	0	0	0	0	39	43.9	43	39.45	8	7.339	0	0
07-19	**7883**	**15**	**7251**	**29**	**538**	**14**	**15**	**4**	**7**	**6**	**4**		**07-19**	**13**	**10**	**99**	**659**	**2237**	**2985**	**1592**	**259**	**27**	**1**	**0**	**1**	**0**	**0**	**31.4**	**36.5**	**288**	**3.653**	**15**	**0.19**	**1**	**0.013**
06-22	**9209**	**24**	**8482**	**31**	**615**	**17**	**17**	**5**	**7**	**6**	**5**		**06-22**	**13**	**10**	**101**	**664**	**2314**	**3343**	**2195**	**489**	**73**	**6**	**0**	**1**	**0**	**0**	**32.2**	**37.6**	**569**	**6.179**	**43**	**0.467**	**1**	**0.011**
06-00	**9494**	**25**	**8760**	**31**	**621**	**17**	**17**	**5**	**7**	**6**	**5**		**06-00**	**13**	**11**	**101**	**665**	**2324**	**3408**	**2313**	**558**	**89**	**11**	**0**	**1**	**0**	**0**	**32.3**	**37.9**	**659**	**6.941**	**59**	**0.621**	**2**	**0.021**
00-00	**9714**	**29**	**8939**	**31**	**650**	**17**	**19**	**5**	**10**	**8**	**6**		**00-00**	**13**	**13**	**101**	**666**	**2328**	**3445**	**2382**	**624**	**115**	**24**	**2**	**1**	**0**	**0**	**32.5**	**38.1**	**766**	**7.886**	**94**	**0.968**	**5**	**0.051**

23 November 2018

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	]PSL 40	]PSL% 40	]SL1 46 ACPO	]SL1% 46 ACPO	]SL2 55 DFT	]SL2% 55 DFT
0000	65	0	60	0	5	0	0	0	0	0	0		0000	0	0	0	0	3	5	21	20	11	5	0	0	0	0	41	46.9	36	55.38	14	21.54	0	0
0100	29	0	25	0	4	0	0	0	0	0	0		0100	0	0	0	0	0	8	11	5	3	2	0	0	0	0	39.3	45.6	10	34.48	4	13.79	1	3.448
0200	26	0	25	0	0	1	0	0	0	0	0		0200	0	0	0	0	1	3	11	7	2	2	0	0	0	0	39.8	46.1	11	42.31	4	15.38	1	3.846
0300	9	0	6	0	2	0	0	0	1	0	0		0300	0	0	0	0	0	2	2	3	1	1	0	0	0	0	40.5	-	5	55.56	2	22.22	0	0
0400	36	2	28	0	5	0	0	0	0	0	1		0400	0	1	1	0	0	4	12	9	5	3	1	0	0	0	40.1	48.8	18	50	9	25	2	5.556
0500	99	3	85	0	9	1	0	0	0	1	0		0500	0	0	0	0	0	8	37	36	7	10	1	0	0	0	41.3	48.7	54	54.55	17	17.17	2	2.02
0600	374	6	314	1	46	3	1	0	1	0	2		0600	0	1	3	3	8	72	185	91	8	3	0	0	0	0	37.5	41.7	102	27.27	8	2.139	1	0.267
0700	1014	5	936	6	48	2	3	1	7	1	5		0700	0	0	2	11	249	468	248	34	2	0	0	0	0	0	32.7	36.7	36	3.55	0	0	0	0
0800	920	4	848	5	55	5	1	0	2	0	0		0800	0	0	7	43	147	401	279	37	5	1	0	0	0	0	33.2	37.2	43	4.674	4	0.435	0	0
0900	594	1	518	1	67	2	3	1	0	1	0		0900	0	0	1	24	155	221	162	30	1	0	0	0	0	0	32.7	37.6	31	5.219	0	0	0	0
1000	466	1	420	1	38	2	2	1	1	0	0		1000	4	1	5	29	191	188	38	10	0	0	0	0	0	0	30.1	33.9	10	2.146	0	0	0	0
1100	504	2	466	1	34	0	0	0	0	0	1		1100	1	1	0	51	198	203	46	4	0	0	0	0	0	0	30.1	34.1	4	0.794	0	0	0	0
1200	460	2	412	0	42	1	1	1	0	0	1		1200	2	1	1	33	197	189	32	5	0	0	0	0	0	0	29.8	33.2	5	1.087	0	0	0	0
1300	501	5	460	1	31	3	0	0	0	0	1		1300	0	1	2	38	222	202	31	4	0	1	0	0	0	0	29.9	33.2	5	0.998	1	0.2	1	0.2
1400	564	0	518	1	40	0	4	0	0	0	1		1400	2	0	0	75	247	183	45	9	2	0	1	0	0	0	29.5	33.6	12	2.128	3	0.532	1	0.177
1500	649	0	599	4	42	1	2	1	0	0	0		1500	0	0	2	44	216	213	142	30	2	0	0	0	0	0	31.7	37	32	4.931	1	0.154	0	0
1600	633	1	598	3	29	0	0	0	0	0	2		1600	0	0	0	7	58	265	247	48	7	1	0	0	0	0	34.8	38.5	56	8.847	4	0.632	0	0
1700	652	3	621	1	23	3	0	0	0	0	1		1700	0	0	0	0	63	267	266	51	4	1	0	0	0	0	34.7	38.1	56	8.589	2	0.307	0	0
1800	567	2	538	3	23	0	1	0	0	0	0		1800	0	0	0	11	34	167	283	69	3	0	0	0	0	0	35.7	39.6	72	12.7	2	0.353	0	0
1900	426	0	413	2	10	1	0	0	0	0	0		1900	0	0	0	0	25	141	192	57	10	0	0	1	0	0	36.4	40.5	68	15.96	9	2.113	1	0.235
2000	245	1	239	0	4	0	0	0	0	0	1		2000	0	0	0	2	4	62	113	55	3	5	1	0	0	0	37.6	41.3	64	26.12	8	3.265	3	1.224
2100	204	2	193	1	7	0	1	0	0	0	0		2100	0	0	0	0	1	40	100	53	6	4	0	0	0	0	38.4	42.5	63	30.88	7	3.431	0	0
2200	186	1	177	0	7	0	0	0	0	0	1		2200	0	0	0	1	4	49	88	33	6	5	0	0	0	0	37.8	42.3	44	23.66	10	5.376	1	0.538
2300	175	1	165	0	8	0	0	0	0	1	0		2300	0	0	0	0	11	40	86	30	3	5	0	0	0	0	37.3	40.9	38	21.71	7	4	2	1.143
07-19	**7524**	**26**	**6934**	**27**	**472**	**19**	**17**	**5**	**10**	**2**	**12**		**07-19**	**9**	**4**	**20**	**366**	**1977**	**2967**	**1819**	**331**	**26**	**4**	**1**	**0**	**0**	**0**	**32.3**	**37**	**362**	**4.811**	**17**	**0.226**	**2**	**0.027**
06-22	**8773**	**35**	**8093**	**31**	**539**	**23**	**19**	**5**	**11**	**2**	**15**		**06-22**	**9**	**5**	**23**	**371**	**2015**	**3282**	**2409**	**587**	**53**	**16**	**2**	**1**	**0**	**0**	**33**	**38**	**659**	**7.512**	**49**	**0.559**	**7**	**0.08**
06-00	**9134**	**37**	**8435**	**31**	**554**	**23**	**19**	**5**	**11**	**3**	**16**		**06-00**	**9**	**5**	**23**	**372**	**2030**	**3371**	**2583**	**650**	**62**	**26**	**2**	**1**	**0**	**0**	**33.2**	**38.2**	**741**	**8.113**	**66**	**0.723**	**10**	**0.109**
00-00	**9398**	**42**	**8664**	**31**	**579**	**25**	**19**	**5**	**12**	**4**	**17**		**00-00**	**9**	**6**	**24**	**372**	**2034**	**3401**	**2677**	**730**	**91**	**49**	**4**	**1**	**0**	**0**	**33.4**	**38.4**	**875**	**9.31**	**116**	**1.234**	**16**	**0.17**

24 November 2018

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	]PSL 40	]PSL% 40	]SL1 46 ACPO	]SL1% 46 ACPO	]SL2 55 DFT	]SL2% 55 DFT
0000	118	0	114	0	4	0	0	0	0	0	0		0000	0	0	0	0	6	24	47	37	3	1	0	0	0	0	37.8	42	41	34.75	1	0.847	0	0
0100	69	1	58	0	10	0	0	0	0	0	0		0100	0	0	0	0	6	17	33	11	1	1	0	0	0	0	36.7	41.5	13	18.84	2	2.899	0	0
0200	33	0	31	0	2	0	0	0	0	0	0		0200	0	0	0	0	2	5	8	10	7	1	0	0	0	0	40.3	47.4	18	54.55	6	18.18	1	3.03
0300	22	0	18	0	4	0	0	0	0	0	0		0300	0	0	0	0	2	4	11	2	2	1	0	0	0	0	37.3	44.5	5	22.73	3	13.64	0	0
0400	33	0	25	0	7	0	0	0	1	0	0		0400	0	0	0	0	2	5	20	4	2	0	0	0	0	0	37	41.6	6	18.18	2	6.061	0	0
0500	40	0	30	0	9	0	0	0	1	0	0		0500	0	0	0	0	2	3	20	8	3	4	0	0	0	0	40.1	47.3	15	37.5	6	15	0	0
0600	97	0	80	0	17	0	0	0	0	0	0		0600	0	0	0	1	3	21	34	26	9	3	0	0	0	0	38.9	44.5	38	39.18	11	11.34	1	1.031
0700	230	2	190	0	34	1	0	0	3	0	0		0700	0	0	1	2	4	60	101	46	10	5	1	0	0	0	37.5	42	62	26.96	13	5.652	2	0.87
0800	423	1	390	0	30	0	0	0	0	2	0		0800	0	0	0	5	8	96	216	83	13	2	0	0	0	0	37.4	41.3	98	23.17	11	2.6	0	0
0900	510	2	473	3	29	0	1	0	1	0	1		0900	0	0	0	0	11	142	264	87	5	1	0	0	0	0	37	40.6	93	18.24	5	0.98	0	0
1000	554	2	523	2	24	1	0	1	1	0	0		1000	0	0	0	1	13	165	287	81	4	3	0	0	0	0	36.7	40.1	88	15.88	7	1.264	1	0.181
1100	601	2	570	3	25	1	0	0	0	0	0		1100	0	0	0	9	27	211	279	67	6	2	0	0	0	0	35.7	39.6	75	12.48	6	0.998	0	0
1200	766	4	721	4	37	0	0	0	0	0	0		1200	0	0	0	3	30	280	371	75	6	1	0	0	0	0	35.8	39.3	82	10.7	6	0.783	1	0.131
1300	576	3	538	3	32	0	0	0	0	0	0		1300	0	0	1	3	24	203	272	65	7	1	0	0	0	0	36.1	39.7	73	12.67	5	0.868	0	0
1400	565	1	538	1	22	0	0	0	2	0	1		1400	0	0	1	3	17	181	275	77	10	1	0	0	0	0	36.3	40.2	88	15.58	8	1.416	0	0
1500	447	1	426	0	19	0	0	0	0	0	1		1500	0	0	0	4	14	127	221	67	13	0	1	0	0	0	36.8	40.5	81	18.12	6	1.342	1	0.224
1600	487	4	458	0	24	0	0	0	1	0	0		1600	0	0	1	1	18	148	236	77	6	0	0	0	0	0	36.4	40.5	83	17.04	4	0.821	0	0
1700	456	2	438	0	16	0	0	0	0	0	0		1700	0	0	1	2	25	144	215	60	9	0	0	0	0	0	36.1	40	69	15.13	5	1.096	0	0
1800	389	0	369	0	18	1	0	0	0	0	1		1800	0	0	1	0	15	104	185	73	7	3	1	0	0	0	37	40.6	84	21.59	8	2.057	2	0.514
1900	333	0	322	0	11	0	0	0	0	0	0		1900	0	0	0	0	12	83	141	78	16	3	0	0	0	0	37.6	41.9	97	29.13	16	4.805	0	0
2000	229	0	216	0	12	0	0	0	0	1	0		2000	0	0	0	0	6	45	106	57	12	3	0	0	0	0	38.1	42.3	72	31.44	12	5.24	0	0
2100	183	0	177	0	6	0	0	0	0	0	0		2100	0	0	0	0	1	42	89	32	11	8	0	0	0	0	38.3	42.5	51	27.87	17	9.29	0	0
2200	147	0	141	1	4	0	0	1	0	0	0		2200	0	0	0	1	5	26	61	40	12	2	0	0	0	0	38.6	43.4	54	36.73	8	5.442	1	0.68
2300	151	1	146	0	4	0	0	0	0	0	0		2300	0	0	0	1	4	49	65	25	5	2	0	0	0	0	36.9	41.3	32	21.19	5	3.311	0	0
07-19	**6004**	**24**	**5634**	**16**	**310**	**4**	**1**	**1**	**8**	**2**	**4**		**07-19**	**0**	**0**	**6**	**33**	**206**	**1861**	**2922**	**858**	**96**	**19**	**3**	**0**	**0**	**0**	**36.4**	**40.2**	**976**	**16.26**	**84**	**1.399**	**7**	**0.117**
06-22	**6846**	**24**	**6429**	**16**	**356**	**4**	**1**	**1**	**8**	**3**	**4**		**06-22**	**0**	**0**	**6**	**34**	**228**	**2052**	**3292**	**1051**	**144**	**36**	**3**	**0**	**0**	**0**	**36.6**	**40.5**	**1234**	**18.03**	**140**	**2.045**	**8**	**0.117**
06-00	**7144**	**25**	**6716**	**17**	**364**	**4**	**1**	**2**	**8**	**3**	**4**		**06-00**	**0**	**0**	**6**	**36**	**237**	**2127**	**3418**	**1116**	**161**	**40**	**3**	**0**	**0**	**0**	**36.7**	**40.6**	**1320**	**18.48**	**153**	**2.142**	**9**	**0.126**
00-00	**7459**	**26**	**6992**	**17**	**400**	**4**	**1**	**2**	**10**	**3**	**4**		**00-00**	**0**	**0**	**6**	**36**	**257**	**2185**	**3557**	**1188**	**179**	**48**	**3**	**0**	**0**	**0**	**36.7**	**40.7**	**1418**	**19.01**	**173**	**2.319**	**10**	**0.134**

25 November 2018

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	]PSL 40	]PSL% 40	]SL1 46 ACPO	]SL1% 46 ACPO	]SL2 55 DFT	]SL2% 55 DFT
0000	143	1	137	0	5	0	0	0	0	0	0		0000	0	0	0	0	0	34	55	35	13	6	0	0	0	0	39.1	44	54	37.76	15	10.49	1	0.699
0100	69	0	64	0	5	0	0	0	0	0	0		0100	0	0	0	0	3	16	26	13	7	1	3	0	0	0	39.2	45.3	24	34.78	8	11.59	3	4.348
0200	35	1	32	0	2	0	0	0	0	0	0		0200	0	0	0	0	1	5	10	13	3	2	1	0	0	0	40.9	46.4	19	54.29	5	14.29	1	2.857
0300	26	0	22	0	2	0	0	0	1	1	0		0300	0	0	0	0	2	8	4	7	4	1	0	0	0	0	39.2	46.3	12	46.15	4	15.38	0	0
0400	12	0	9	0	3	0	0	0	0	0	0		0400	0	0	0	0	0	4	3	3	0	2	0	0	0	0	39.1	50.2	5	41.67	2	16.67	0	0
0500	21	0	18	0	3	0	0	0	0	0	0		0500	0	0	0	0	0	2	9	5	4	0	1	0	0	0	41.5	47.5	10	47.62	4	19.05	1	4.762
0600	56	0	50	0	5	0	0	0	0	1	0		0600	0	0	0	0	3	12	25	8	4	4	0	0	0	0	38.6	45.2	16	28.57	7	12.5	2	3.571
0700	116	0	102	0	14	0	0	0	0	0	0		0700	0	0	0	0	3	23	42	32	12	4	0	0	0	0	39.4	44.8	48	41.38	13	11.21	0	0
0800	154	2	128	1	21	0	0	0	1	0	1		0800	0	0	0	1	4	38	72	27	8	3	1	0	0	0	37.8	41.8	39	25.32	10	6.494	1	0.649
0900	349	5	330	0	12	1	0	0	0	0	1		0900	0	0	0	0	5	61	181	81	18	2	1	0	0	0	38.4	42.3	102	29.23	16	4.585	1	0.287
1000	431	3	399	1	26	1	0	0	0	1	0		1000	0	1	2	0	10	110	226	68	13	1	0	0	0	0	37	40.6	82	19.03	8	1.856	0	0
1100	532	1	510	2	18	0	1	0	0	0	0		1100	0	0	0	1	18	163	242	89	17	2	0	0	0	0	36.8	40.9	108	20.3	11	2.068	0	0
1200	585	1	566	2	15	0	0	0	0	0	1		1200	0	0	1	4	22	132	328	73	25	0	0	0	0	0	36.9	40.1	98	16.75	13	2.222	0	0
1300	497	3	480	2	12	0	0	0	0	0	0		1300	0	0	1	2	5	92	272	102	21	2	0	0	0	0	37.8	41.4	125	25.15	17	3.421	1	0.201
1400	471	3	454	1	12	0	1	0	0	0	0		1400	0	0	1	2	2	139	249	65	10	3	0	0	0	0	36.8	40.4	78	16.56	9	1.911	0	0
1500	439	1	427	1	9	0	0	0	0	1	0		1500	0	1	0	2	11	103	215	90	13	4	0	0	0	0	37.5	41.7	107	24.37	12	2.733	1	0.228
1600	460	3	444	0	13	0	0	0	0	0	0		1600	0	0	0	0	25	158	207	59	7	4	0	0	0	0	36.2	40	70	15.22	8	1.739	3	0.652
1700	393	2	377	1	13	0	0	0	0	0	0		1700	0	0	0	0	3	93	220	61	14	1	1	0	0	0	37.5	40.9	77	19.59	12	3.053	1	0.254
1800	283	0	275	0	8	0	0	0	0	0	0		1800	0	0	0	1	11	57	137	61	11	5	0	0	0	0	37.8	41.6	77	27.21	13	4.594	1	0.353
1900	269	0	259	0	9	0	0	0	1	0	0		1900	0	0	0	0	9	70	118	59	10	3	0	0	0	0	37.6	41.5	72	26.77	7	2.602	0	0
2000	161	0	154	0	6	0	0	1	0	0	0		2000	0	0	0	0	4	22	81	35	16	2	1	0	0	0	39	43.7	54	33.54	14	8.696	1	0.621
2100	124	1	115	0	7	0	0	0	0	0	1		2100	0	0	0	0	1	20	62	26	7	8	0	0	0	0	39.4	43.5	41	33.06	14	11.29	3	2.419
2200	76	0	74	0	2	0	0	0	0	0	0		2200	0	0	0	0	0	10	32	24	8	1	1	0	0	0	40.2	44.4	34	44.74	9	11.84	1	1.316
2300	53	0	43	0	8	1	0	0	0	0	1		2300	0	0	0	1	2	14	16	12	7	1	0	0	0	0	38.4	45.7	20	37.74	6	11.32	1	1.887
07-19	**4710**	**24**	**4492**	**11**	**173**	**2**	**2**	**0**	**1**	**2**	**3**		**07-19**	**0**	**2**	**5**	**13**	**119**	**1169**	**2391**	**808**	**169**	**31**	**3**	**0**	**0**	**0**	**37.3**	**41**	**1011**	**21.46**	**142**	**3.015**	**9**	**0.191**
06-22	**5320**	**25**	**5070**	**11**	**200**	**2**	**2**	**1**	**2**	**3**	**4**		**06-22**	**0**	**2**	**5**	**13**	**136**	**1293**	**2677**	**936**	**206**	**48**	**4**	**0**	**0**	**0**	**37.4**	**41.2**	**1194**	**22.44**	**184**	**3.459**	**15**	**0.282**
06-00	**5449**	**25**	**5187**	**11**	**210**	**3**	**2**	**1**	**2**	**3**	**5**		**06-00**	**0**	**2**	**5**	**14**	**138**	**1317**	**2725**	**972**	**221**	**50**	**5**	**0**	**0**	**0**	**37.4**	**41.3**	**1248**	**22.9**	**199**	**3.652**	**17**	**0.312**
00-00	**5755**	**27**	**5469**	**11**	**230**	**3**	**2**	**1**	**3**	**4**	**5**		**00-00**	**0**	**2**	**5**	**14**	**144**	**1386**	**2832**	**1048**	**252**	**62**	**10**	**0**	**0**	**0**	**37.6**	**41.5**	**1372**	**23.84**	**237**	**4.118**	**23**	**0.4**

26 November 2018

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	]PSL 40	]PSL% 40	]SL1 46 ACPO	]SL1% 46 ACPO	]SL2 55 DFT	]SL2% 55 DFT
0000	19	0	12	0	7	0	0	0	0	0	0		0000	0	0	0	0	0	0	10	3	4	2	0	0	0	0	42.1	48.1	9	47.37	4	21.05	0	0
0100	20	0	18	0	2	0	0	0	0	0	0		0100	0	0	0	0	1	0	7	8	2	2	0	0	0	0	41.2	49.1	12	60	3	15	0	0
0200	8	0	4	0	4	0	0	0	0	0	0		0200	0	0	0	0	2	0	5	1	0	0	0	0	0	0	35.6	-	1	12.5	0	0	0	0
0300	13	0	10	0	3	0	0	0	0	0	0		0300	0	0	0	1	1	2	3	3	2	1	0	0	0	0	37.7	46	6	46.15	2	15.38	0	0
0400	40	1	34	0	4	0	0	0	1	0	0		0400	0	1	0	0	3	5	14	9	6	1	1	0	0	0	39.2	45.4	17	42.5	5	12.5	2	5
0500	112	3	93	0	12	0	1	1	0	0	2		0500	0	0	2	1	3	8	38	39	14	7	0	0	0	0	40.6	45.6	60	53.57	14	12.5	4	3.571
0600	431	7	376	1	41	0	0	1	2	1	2		0600	0	0	2	6	5	84	207	110	11	5	0	1	0	0	37.8	41.8	127	29.47	13	3.016	1	0.232
0700	1098	5	1011	9	61	5	4	0	1	1	1		0700	0	0	37	109	241	419	270	20	2	0	0	0	0	0	31.4	36.2	22	2.004	2	0.182	0	0
0800	1000	8	917	10	55	1	1	1	4	2	1		0800	1	0	5	42	226	416	265	37	3	1	1	0	0	3	32.9	37.1	45	4.5	7	0.7	4	0.4
0900	602	1	526	4	63	4	2	0	2	0	0		0900	0	0	2	27	109	276	163	20	3	2	0	0	0	0	33	37.2	25	4.153	4	0.664	0	0
1000	494	1	428	1	60	2	1	0	1	0	0		1000	0	0	3	48	262	160	17	2	2	0	0	0	0	0	29.2	32.3	4	0.81	2	0.405	0	0
1100	440	0	388	2	50	0	0	0	0	0	0		1100	1	0	2	29	244	137	23	3	0	1	0	0	0	0	29.4	33.1	4	0.909	1	0.227	0	0
1200	458	4	398	3	45	5	0	0	1	1	1		1200	0	0	0	43	251	142	17	3	1	1	0	0	0	0	29.3	32.3	5	1.092	1	0.218	1	0.218
1300	482	1	430	0	48	1	0	0	0	1	1		1300	0	1	7	39	279	132	21	3	0	0	0	0	0	0	28.9	32	3	0.622	0	0	0	0
1400	500	1	456	0	41	0	1	0	1	0	0		1400	0	0	2	71	270	134	20	3	0	0	0	0	0	0	28.6	32.4	3	0.6	0	0	0	0
1500	600	3	553	0	42	2	0	0	0	0	0		1500	0	0	0	70	216	194	95	22	3	0	0	0	0	0	30.8	36	25	4.167	3	0.5	0	0
1600	520	0	494	2	23	0	1	0	0	0	0		1600	0	0	0	4	43	190	224	51	8	0	0	0	0	0	35.3	39.4	59	11.35	4	0.769	0	0
1700	677	1	638	3	31	2	0	0	0	0	2		1700	0	0	0	0	38	272	306	55	5	1	0	0	0	0	35.4	38.7	61	9.01	3	0.443	0	0
1800	510	1	487	1	21	0	0	0	0	0	0		1800	0	0	1	0	17	160	262	63	7	0	0	0	0	0	36.2	39.9	70	13.73	4	0.784	0	0
1900	409	1	388	1	18	0	1	0	0	0	0		1900	0	0	0	2	21	141	177	54	13	1	0	0	0	0	36.3	40.4	68	16.63	11	2.689	0	0
2000	267	3	256	0	8	0	0	0	0	0	0		2000	0	0	0	0	13	62	132	47	10	3	0	0	0	0	37.4	42	60	22.47	9	3.371	1	0.375
2100	168	1	163	0	4	0	0	0	0	0	0		2100	0	0	0	0	2	38	75	39	11	2	0	0	1	0	38.6	43.4	53	31.55	8	4.762	1	0.595
2200	140	0	126	0	14	0	0	0	0	0	0		2200	0	0	0	0	7	34	71	18	6	3	1	0	0	0	37.5	41.5	28	20	9	6.429	1	0.714
2300	51	0	45	0	4	0	1	0	0	1	0		2300	0	0	0	0	0	8	17	19	5	2	0	0	0	0	40.2	44.9	26	50.98	5	9.804	0	0
07-19	**7381**	**26**	**6726**	**35**	**540**	**22**	**10**	**1**	**10**	**5**	**6**		**07-19**	**2**	**1**	**59**	**482**	**2196**	**2632**	**1683**	**282**	**34**	**6**	**1**	**0**	**0**	**3**	**31.9**	**36.9**	**326**	**4.417**	**31**	**0.42**	**5**	**0.068**
06-22	**8656**	**38**	**7909**	**37**	**611**	**22**	**11**	**2**	**12**	**6**	**8**		**06-22**	**2**	**1**	**61**	**490**	**2237**	**2957**	**2274**	**532**	**79**	**17**	**1**	**1**	**1**	**3**	**32.7**	**37.9**	**634**	**7.324**	**72**	**0.832**	**8**	**0.092**
06-00	**8847**	**38**	**8080**	**37**	**629**	**22**	**12**	**2**	**12**	**7**	**8**		**06-00**	**2**	**1**	**61**	**490**	**2244**	**2999**	**2362**	**569**	**90**	**22**	**2**	**1**	**1**	**3**	**32.8**	**38.1**	**688**	**7.777**	**86**	**0.972**	**9**	**0.102**
00-00	**9059**	**42**	**8251**	**37**	**661**	**22**	**13**	**3**	**13**	**7**	**10**		**00-00**	**2**	**2**	**63**	**492**	**2254**	**3014**	**2439**	**632**	**118**	**35**	**3**	**1**	**1**	**3**	**33**	**38.3**	**793**	**8.754**	**114**	**1.258**	**15**	**0.166**

Virtual Day (7)

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	]PSL 40	]PSL% 40	]SL1 46 ACPO	]SL1% 46 ACPO	]SL2 55 DFT	]SL2% 55 DFT
0000	65	0	59	0	6	0	0	0	0	0	0		0000	0	0	0	0	2	12	24	18	6	2	0	0	0	0	39.1	44	26	40.27	6	9.513	1	0.885
0100	35	0	30	0	5	0	0	0	0	0	0		0100	0	0	0	0	2	8	14	8	2	1	0	0	0	0	38.5	43.8	12	33.33	3	8.943	1	1.626
0200	19	0	16	0	2	0	0	0	0	0	0		0200	0	0	0	0	1	2	6	5	2	1	0	0	0	0	39.9	46.2	8	45.38	3	15.38	1	3.077
0300	17	0	13	0	4	0	0	0	0	0	0		0300	0	0	0	0	1	4	6	4	2	1	0	0	0	0	38.3	45.4	6	37.82	2	12.61	0	0
0400	33	1	26	0	5	0	0	0	0	0	0		0400	0	0	0	0	2	5	12	8	4	1	0	0	0	0	38.7	45.4	13	40.34	4	13.3	1	2.146
0500	85	1	70	0	10	0	1	0	1	0	1		0500	0	0	1	0	1	7	31	28	10	7	0	0	0	0	40.9	46.5	45	52.78	13	15.85	2	2.192
0600	359	4	310	1	40	1	1	0	1	0	1		0600	0	0	2	5	21	101	153	64	9	3	0	0	0	0	36.5	41.1	77	21.51	9	2.55	1	0.199
0700	868	3	793	7	56	3	2	0	2	1	1		0700	1	1	11	70	229	350	175	27	4	1	0	0	0	0	31.5	36.3	32	3.652	4	0.461	0	0.033
0800	834	4	765	10	46	2	2	1	2	1	1		0800	5	12	31	95	180	282	185	37	5	1	0	0	0	1	31	37.1	44	5.326	5	0.634	1	0.103
0900	543	2	491	2	44	2	1	0	1	1	0		0900	0	0	2	17	76	194	198	49	6	1	0	0	0	0	34.4	39.1	55	10.18	5	0.868	0	0.026
1000	499	1	448	1	43	2	1	0	1	1	0		1000	1	0	3	25	151	168	119	28	3	1	0	0	0	0	32.3	37.7	32	6.416	3	0.544	0	0.029
1100	496	1	454	1	37	1	1	0	0	0	1		1100	0	1	2	37	152	174	99	25	3	1	0	0	0	0	31.7	37	29	5.877	3	0.519	0	0
1200	523	2	478	2	38	2	1	0	0	1	0		1200	0	0	6	32	164	170	121	23	6	0	0	0	0	0	31.9	37.4	29	5.569	3	0.655	0	0.055
1300	500	3	454	1	38	2	0	0	0	0	0		1300	1	5	17	43	162	143	97	27	5	1	0	0	0	0	31	37.5	33	6.548	4	0.715	0	0.057
1400	530	1	487	1	37	0	2	0	0	0	1		1400	1	2	6	57	174	161	101	24	3	1	0	0	0	0	31.1	36.9	28	5.338	3	0.593	0	0.054
1500	556	1	520	1	31	1	1	0	0	1	1		1500	0	0	4	35	129	185	157	38	6	1	0	0	0	0	32.9	38.4	45	8.141	5	0.899	0	0.051
1600	574	2	543	1	27	0	0	0	0	0	0		1600	0	0	0	4	53	238	227	47	5	1	0	0	0	0	34.9	38.8	53	9.258	3	0.597	0	0.075
1700	616	2	589	2	22	1	0	0	0	0	0		1700	0	0	0	2	40	247	268	51	7	0	0	0	0	0	35.3	38.9	59	9.513	5	0.742	0	0.023
1800	503	1	485	1	15	0	0	0	0	0	0		1800	0	0	1	2	29	167	234	62	7	2	0	0	0	0	35.9	39.9	71	14.09	6	1.193	0	0.085
1900	391	0	375	1	13	0	0	0	0	0	0		1900	0	0	0	2	21	120	173	62	11	1	0	0	0	0	36.5	40.8	75	19.13	9	2.268	0	0.073
2000	256	1	247	0	7	0	0	0	0	0	0		2000	0	0	0	1	11	61	123	46	11	2	0	0	0	0	37.4	41.4	60	23.49	9	3.683	1	0.335
2100	182	1	174	0	6	0	0	0	0	0	0		2100	0	0	0	0	5	39	85	39	9	4	0	0	0	0	38.1	42.4	53	28.93	10	5.66	1	0.314
2200	158	1	151	0	5	0	0	0	0	0	0		2200	0	0	0	1	7	39	68	32	8	3	0	0	0	0	37.7	42.2	42	26.75	9	5.53	1	0.725
2300	107	0	101	0	5	0	0	0	0	0	0		2300	0	0	0	0	4	25	47	22	6	2	0	0	0	0	37.8	42.5	30	28.23	6	5.859	1	0.533
07-19	**7042**	**22**	**6505**	**30**	**435**	**16**	**12**	**3**	**7**	**5**	**7**		**07-19**	**9**	**23**	**84**	**418**	**1540**	**2476**	**1981**	**439**	**60**	**10**	**1**	**0**	**0**	**1**	**32.7**	**38**	**511**	**7.251**	**48**	**0.688**	**4**	**0.051**
06-22	**8229**	**28**	**7611**	**33**	**500**	**17**	**13**	**3**	**8**	**6**	**9**		**06-22**	**9**	**23**	**86**	**425**	**1597**	**2798**	**2515**	**651**	**101**	**21**	**1**	**0**	**0**	**1**	**33.3**	**38.6**	**775**	**9.42**	**86**	**1.047**	**6**	**0.073**
06-00	**8494**	**29**	**7863**	**33**	**510**	**17**	**13**	**3**	**8**	**6**	**9**		**06-00**	**9**	**23**	**86**	**426**	**1609**	**2862**	**2630**	**705**	**114**	**26**	**2**	**0**	**0**	**1**	**33.5**	**38.8**	**848**	**9.979**	**101**	**1.191**	**8**	**0.091**
00-00	**8747**	**32**	**8078**	**33**	**541**	**18**	**14**	**4**	**10**	**7**	**10**		**00-00**	**9**	**24**	**88**	**427**	**1618**	**2901**	**2723**	**775**	**140**	**38**	**4**	**0**	**0**	**1**	**33.7**	**39**	**958**	**10.96**	**133**	**1.524**	**12**	**0.137**

Virtual Week (1)

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	]PSL 40	]PSL% 40	]SL1 46 ACPO	]SL1% 46 ACPO	]SL2 55 DFT	]SL2% 55 DFT
Mon	9059	42	8251	37	661	22	13	3	13	7	10		Mon	2	2	63	492	2254	3014	2439	632	118	35	3	1	1	3	33	38.3	793	8.754	114	1.258	15	0.166
Tue	9777	25	9045	52	580	21	17	3	10	8	16		Tue	32	88	243	794	2113	3385	2473	528	97	21	3	0	0	0	32	37.6	649	6.638	92	0.941	7	0.072
Wed	10066	36	9184	52	688	34	29	6	9	13	15		Wed	10	55	171	613	2193	3490	2699	677	127	29	1	0	0	1	32.7	38.3	835	8.295	107	1.063	8	0.079
Thu	9714	29	8939	31	650	17	19	5	10	8	6		Thu	13	13	101	666	2328	3445	2382	624	115	24	2	1	0	0	32.5	38.1	766	7.886	94	0.968	5	0.051
Fri	9398	42	8664	31	579	25	19	5	12	4	17		Fri	9	6	24	372	2034	3401	2677	730	91	49	4	1	0	0	33.4	38.4	875	9.31	116	1.234	16	0.17
|Sat	7459	26	6992	17	400	4	1	2	10	3	4		|Sat	0	0	6	36	257	2185	3557	1188	179	48	3	0	0	0	36.7	40.7	1418	19.01	173	2.319	10	0.134
|Sun	5755	27	5469	11	230	3	2	1	3	4	5		|Sun	0	2	5	14	144	1386	2832	1048	252	62	10	0	0	0	37.6	41.5	1372	23.84	237	4.118	23	0.4
--	**61228**	**227**	**56544**	**231**	**3788**	**126**	**100**	**25**	**67**	**47**	**73**		**--**	**66**	**166**	**613**	**2987**	**11323**	**20306**	**19059**	**5427**	**979**	**268**	**26**	**3**	**1**	**4**	**33.7**	**39**	**6708**	**10.96**	**933**	**1.524**	**84**	**0.137**

Grand Total

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	]PSL 40	]PSL% 40	]SL1 46 ACPO	]SL1% 46 ACPO	]SL2 55 DFT	]SL2% 55 DFT
--	**61228**	**227**	**56544**	**231**	**3788**	**126**	**100**	**25**	**67**	**47**	**73**		**--**	**66**	**166**	**613**	**2987**	**11323**	**20306**	**19059**	**5427**	**979**	**268**	**26**	**3**	**1**	**4**	**33.7**	**39**	**6708**	**10.96**	**933**	**1.524**	**84**	**0.137**

Virtual Weekday

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	]PSL 40	]PSL% 40	]SL1 46 ACPO	]SL1% 46 ACPO	]SL2 55 DFT	]SL2% 55 DFT
0000	38	0	32	0	6	0	0	0	0	0	0	#DIV/0!	0000	0	0	0	0	2	12	24	18	6	2	0	0	0	0	39.1	44	26	40.27	6	9.513	1	0.885
0100	22	0	18	0	4	0	0	0	0	0	0	#DIV/0!	0100	0	0	0	0	2	8	14	8	2	1	0	0	0	0	38.5	43.8	12	33.33	3	8.943	1	1.626
0200	12	0	10	0	1	0	0	0	0	0	0	#DIV/0!	0200	0	0	0	0	1	2	6	5	2	1	0	0	0	0	39.9	46.2	8	45.38	3	15.38	1	3.077
0300	14	0	10	0	4	0	0	0	0	0	0	#DIV/0!	0300	0	0	0	0	1	4	6	4	2	1	0	0	0	0	38.3	45.4	6	37.82	2	12.61	0	0
0400	38	2	30	0	5	0	0	0	0	0	0	#DIV/0!	0400	0	0	0	0	2	5	12	8	4	1	0	0	0	0	38.7	45.4	13	40.34	4	13.3	1	2.146
0500	106	2	89	0	12	0	1	0	1	1	1	#DIV/0!	0500	0	0	1	0	1	7	31	28	10	7	0	0	0	0	40.9	46.5	45	52.78	13	15.85	2	2.192
0600	471	6	407	1	51	1	1	0	1	0	2	#DIV/0!	0600	0	0	2	5	21	101	153	64	9	3	0	0	0	0	36.5	41.1	77	21.51	9	2.55	1	0.199
0700	1147	4	1051	9	68	4	3	1	3	1	2	#DIV/0!	0700	1	1	11	70	229	350	175	27	4	1	0	0	0	0	31.5	36.3	32	3.652	4	0.461	0	0.033
0800	1052	5	968	14	54	3	3	1	2	1	1	#DIV/0!	0800	5	12	31	95	180	282	185	37	5	1	0	0	0	1	31	37.1	44	5.326	5	0.634	1	0.103
0900	588	1	526	2	54	2	1	1	1	1	0	#DIV/0!	0900	0	0	2	17	76	194	198	49	6	1	0	0	0	0	34.4	39.1	55	10.18	5	0.868	0	0.026
1000	501	1	443	1	50	2	1	0	1	1	0	#DIV/0!	1000	1	0	3	25	151	168	119	28	3	1	0	0	0	0	32.3	37.7	32	6.416	3	0.544	0	0.029
1100	468	1	419	1	43	2	1	0	0	0	1	#DIV/0!	1100	0	1	2	37	152	174	99	25	3	1	0	0	0	0	31.7	37	29	5.877	3	0.519	0	0
1200	462	2	411	1	43	2	1	0	0	1	0	#DIV/0!	1200	0	0	6	32	164	170	121	23	6	0	0	0	0	0	31.9	37.4	29	5.569	3	0.655	0	0.055
1300	485	2	432	1	45	3	1	0	0	1	1	#DIV/0!	1300	1	5	17	43	162	143	97	27	5	1	0	0	0	0	31	37.5	33	6.548	4	0.715	0	0.057
1400	535	1	484	1	45	1	2	0	0	0	1	#DIV/0!	1400	1	2	6	57	174	161	101	24	3	1	0	0	0	0	31.1	36.9	28	5.338	3	0.593	0	0.054
1500	602	1	557	2	38	1	1	0	0	1	1	#DIV/0!	1500	0	0	4	35	129	185	157	38	6	1	0	0	0	0	32.9	38.4	45	8.141	5	0.899	0	0.051
1600	614	1	580	2	30	0	0	0	0	0	1	#DIV/0!	1600	0	0	0	4	53	238	227	47	5	1	0	0	0	0	34.9	38.8	53	9.258	3	0.597	0	0.075
1700	692	2	661	2	25	2	0	0	0	0	1	#DIV/0!	1700	0	0	0	2	40	247	268	51	7	0	0	0	0	0	35.3	38.9	59	9.513	5	0.742	0	0.023
1800	570	1	550	2	16	0	0	0	0	0	0	#DIV/0!	1800	0	0	1	2	29	167	234	62	7	2	0	0	0	0	35.9	39.9	71	14.09	6	1.193	0	0.085
1900	426	1	409	1	14	1	1	0	0	0	0	#DIV/0!	1900	0	0	0	2	21	120	173	62	11	1	0	0	0	0	36.5	40.8	75	19.13	9	2.268	0	0.073
2000	280	1	271	0	7	0	0	0	0	0	0	#DIV/0!	2000	0	0	0	1	11	61	123	46	11	2	0	0	0	0	37.4	41.4	60	23.49	9	3.683	1	0.335
2100	193	1	186	1	6	0	0	0	0	0	0	#DIV/0!	2100	0	0	0	0	5	39	85	39	9	4	0	0	0	0	38.1	42.4	53	28.93	10	5.66	1	0.314
2200	176	1	169	0	6	0	0	0	0	0	0	#DIV/0!	2200	0	0	0	1	7	39	68	32	8	3	0	0	0	0	37.7	42.2	42	26.75	9	5.53	1	0.725
2300	109	0	104	0	4	0	0	0	0	0	0	#DIV/0!	2300	0	0	0	0	4	25	47	22	6	2	0	0	0	0	37.8	42.5	30	28.23	6	5.859	1	0.533
07-19	7716	22	7082	37	512	21	16	3	8	6	9	#DIV/0!	**07-19**	**9**	**23**	**84**	**418**	**1540**	**2476**	**1981**	**439**	**60**	**10**	**1**	**0**	**0**	**1**	**32.7**	**38**	**511**	**7.251**	**48**	**0.688**	**4**	**0.051**
06-22	9087	30	8355	40	589	23	18	4	9	7	11	#DIV/0!	**06-22**	**9**	**23**	**86**	**425**	**1597**	**2798**	**2515**	**651**	**101**	**21**	**1**	**0**	**0**	**1**	**33.3**	**38.6**	**775**	**9.42**	**86**	**1.047**	**6**	**0.073**
06-00	9372	31	8628	41	600	23	18	4	9	7	11	#DIV/0!	**06-00**	**9**	**23**	**86**	**426**	**1609**	**2862**	**2630**	**705**	**114**	**26**	**2**	**0**	**0**	**1**	**33.5**	**38.8**	**848**	**9.979**	**101**	**1.191**	**8**	**0.091**
00-00	9603	35	8817	41	632	24	19	4	11	8	13	#DIV/0!	**00-00**	**9**	**24**	**88**	**427**	**1618**	**2901**	**2723**	**775**	**140**	**38**	**4**	**0**	**0**	**1**	**33.7**	**39**	**958**	**10.96**	**133**	**1.524**	**12**	**0.137**

APPENDIX D

Junctions 9 Output

Junctions 9

ARCADY 9 - Roundabout Module

Filename: A1023 Site Access-DD-March 2019.j9
Path: X:\Projects\150000\152080 - Shenfield\MODELLING\Transport Strategy
Report generation date: 06/03/2019 14:56:26

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base + Development 2033							
Arm 1	3.9	10.12	0.80	B	1.2	4.54	0.55	A
Arm 2	0.6	10.03	0.36	B	0.1	4.88	0.12	A
Arm 3	1.2	4.78	0.54	A	2.7	8.01	0.73	A

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

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	15/02/2016
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	VECTOS"georgina.stephens
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
Base + Development 2033	AM	ONE HOUR	07:45	09:15	15
Base + Development 2033	PM	ONE HOUR	16:45	18:15	15

Base + Development 2033, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	8.22	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A1023 North	
2	Site Access	
3	A1023 South	

Capacity Options

Arm	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.00	7.13	30.0	30.0	40.0	30.0	
2	3.65	6.30	3.8	25.0	40.0	34.0	
3	3.00	7.10	30.0	20.0	40.0	36.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.668	1806.676
2	0.571	1348.867
3	0.643	1736.389

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D1	Base + Development 2033	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	1305.00	100.000
2		✓	184.00	100.000
3		✓	818.00	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0.000	51.000	1254.000
	2	118.000	0.000	66.000
	3	797.000	21.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS
1	0.80	10.12	3.9	B
2	0.36	10.03	0.6	B
3	0.54	4.78	1.2	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1	982.47	15.75	1796.15	0.547	977.69	1.2	4.373	A
2	138.52	939.49	812.83	0.170	137.71	0.2	5.325	A
3	615.83	88.31	1679.61	0.367	613.53	0.6	3.370	A

Main results: (08:00-08:15)

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1	1173.17	18.86	1794.08	0.654	1170.52	1.9	5.749	A
2	165.41	1124.78	707.11	0.234	165.02	0.3	6.637	A
3	735.37	105.83	1668.36	0.441	734.54	0.8	3.852	A

Main results: (08:15-08:30)

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1	1436.83	23.08	1791.25	0.802	1428.86	3.8	9.722	A
2	202.59	1373.02	565.48	0.358	201.60	0.5	9.867	A
3	900.63	129.29	1653.27	0.545	899.03	1.2	4.764	A

Main results: (08:30-08:45)

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1	1436.83	23.12	1791.23	0.802	1436.45	3.9	10.115	B
2	202.59	1380.31	561.32	0.361	202.55	0.6	10.032	B
3	900.63	129.90	1652.88	0.545	900.61	1.2	4.785	A

Main results: (08:45-09:00)

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1	1173.17	18.92	1794.04	0.654	1181.26	1.9	5.949	A
2	165.41	1135.09	701.23	0.236	166.40	0.3	6.745	A
3	735.37	106.71	1667.79	0.441	736.95	0.8	3.875	A

Main results: (09:00-09:15)

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1	982.47	15.83	1796.10	0.547	985.29	1.2	4.454	A
2	138.52	946.78	808.67	0.171	138.94	0.2	5.378	A
3	615.83	89.10	1679.11	0.367	616.68	0.6	3.390	A

Base + Development 2033, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	6.41	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D2	Base + Development 2033	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	891.00	100.000
2		✓	93.00	100.000
3		✓	1129.00	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0.000	81.000	810.000
	2	63.000	0.000	30.000
	3	1084.000	45.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS
1	0.55	4.54	1.2	A
2	0.12	4.88	0.1	A
3	0.73	8.01	2.7	A

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1	670.79	33.72	1784.15	0.376	668.40	0.6	3.220	A
2	70.02	607.63	1002.18	0.070	69.72	0.1	3.860	A
3	849.97	47.23	1706.03	0.498	846.04	1.0	4.167	A

Main results: (17:00-17:15)

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1	800.99	40.38	1779.70	0.450	800.14	0.8	3.671	A
2	83.61	727.40	933.84	0.090	83.51	0.1	4.233	A
3	1014.95	56.57	1700.02	0.597	1013.04	1.5	5.225	A

Main results: (17:15-17:30)

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1	981.01	49.35	1773.70	0.553	979.36	1.2	4.523	A
2	102.39	890.33	840.88	0.122	102.23	0.1	4.872	A
3	1243.05	69.26	1691.87	0.735	1238.16	2.7	7.850	A

Main results: (17:30-17:45)

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1	981.01	49.54	1773.58	0.553	980.98	1.2	4.541	A
2	102.39	891.80	840.04	0.122	102.39	0.1	4.879	A
3	1243.05	69.36	1691.80	0.735	1242.89	2.7	8.011	A

Main results: (17:45-18:00)

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1	800.99	40.65	1779.52	0.450	802.62	0.8	3.693	A
2	83.61	729.65	932.56	0.090	83.76	0.1	4.241	A
3	1014.95	56.74	1699.91	0.597	1019.84	1.5	5.332	A

Main results: (18:00-18:15)

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1	670.79	33.96	1783.99	0.376	671.67	0.6	3.240	A
2	70.02	610.61	1000.48	0.070	70.11	0.1	3.869	A
3	849.97	47.49	1705.86	0.498	851.97	1.0	4.227	A