



Paul Voller

TARS FARM, BARNHAM

Transport Statement



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1 INTRODUCTION AND REPORT STRUCTURE

1.1 INTRODUCTION

WSP UK Limited (WSP) has been appointed by Paul Voller as land owner to prepare a Transport Statement to identify and review the effects of a proposed development at the rear of Tars Farm in Barnham. The proposed development will involve the construction of four (4) residential dwellings with access to be taken from Church Lane.

The Transport Statement has been prepared to take account of National Planning Policy Framework (March 2012). Local Planning Policy has also been taken into account through review of the Arun Local Plan 2011-2031 (2018), West Sussex Transport Plan 2011 – 2026 (2011), and the Barnham and Eastergate Neighbourhood Development Plan 2014-2029 (2014).

The report has been prepared to be submitted to West Sussex County Council (West Sussex) to support the planning application submission. The report will evaluate the impacts of the proposed development of four (4) dwellings on the surrounding highway network. The report has been based on WSP's understanding of West Sussex's requirements and our specialist experience of undertaking Transport Statements for similar developments.

1.2 REPORT STRUCTURE

The Transport Statement investigates the highway and transportation issues associated with the development proposals, the layout of the report is as follows:

- ※ Section 2: Provides a review of policy context;
- ※ Section 3: Provides a description of the existing site and highway conditions;
- ※ Section 4: Provides an outline of the development proposals;
- ※ Section 5: Provides a summary of the trip generation;
- ※ Section 6: Provides an assessment of the potential impacts of the proposed extension; and,
- ※ Section 7: Provides a conclusion for the Transport Statement.

2 POLICY CONTEXT

2.1 LEGISLATION

2.1.1 TOWN AND COUNTRY PLANNING ACT, 1990

The Town and Country Planning Act 1990 (TCPA 1990) and the Planning and Compulsory Purchase Act 2004 (PCPA 2004) establish the legislative basis for town planning in England and Wales. These Acts establish a plan-led system which requires Local Planning Authorities (LPAs) to determine planning applications in accordance with the development plan unless material considerations indicate otherwise.

2.2 NATIONAL PLANNING POLICY

2.2.1 NATIONAL PLANNING POLICY FRAMEWORK (NPPF), FEBRUARY 2019

The National Planning Policy Framework (NPPF) sets out the Government's planning policies and how these should be applied. It provides a framework within which locally prepared plans for housing and other development can be produced.

It is stated that achieving sustainable development means that the planning system has three overarching objectives; an economic objective, a social objective and an environmental objective. These objectives should be delivered through the preparation and implementation of plans and the application of the policies in this Framework.

In order to ensure that sustainable development is pursued in a positive way, at the heart of the NPPF is a "presumption in favour of sustainable development".

In addition, in terms of sustainable transport paragraph 102 states 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.'

The NPPF states that all developments that will generate significant amounts of movement should be required to provide a Travel Plan, and the application should be supported by a Transport Statement or Transport Assessment so that the likely impacts of the proposal can be assessed.

2.2.2 NATIONAL PLANNING PRACTICE GUIDANCE (NPPG), TRAVEL PLANS, TRANSPORT ASSESSMENTS AND STATEMENTS, MARCH 2014

This guidance includes information associated with Travel Plans, Transport Assessments and Transport Statements. In terms of development planning, Transport Statements / Assessments are useful in plan-making of local planning authorities are of the view that they can beneficially inform their Local Plans.

Travel Plans, Transport Assessments and Statements can positively contribute to:

- ※ Encouraging sustainable travel;
- ※ Lessening traffic generation and its detrimental impacts;
- ※ Reducing carbon emissions and climate impacts;
- ※ Creating accessible, connected, inclusive communities;
- ※ Improving health outcomes and quality of life;
- ※ Improving road safety; and
- ※ Reducing the need for new development to increase existing road capacity or provide new roads.

They support national planning policy which sets out that planning should actively manage patterns of growth in order to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable.

Local planning authorities and developers should both consider the wider benefits of Travel Plans, Transport Assessments and Statements such as helping to promote the attractiveness of a district or site to new visitors and releasing land for development that would otherwise be taken up by required related parking.

2.3 REGIONAL PLANNING POLICY

2.3.1 WEST SUSSEX TRANSPORT PLAN (2011)

West Sussex Transport Plan 2011 – 2026 sets out the strategic direction for transport in West Sussex and aligns its goals with those set out in other strategies such as the County Strategy and Local Strategies. The objectives of the plan are to promote economic growth, tackle climate change, provide access to services, employment and housing and to improve safety, security and health.

The plan sets out the key issues identified in Arun, which is inclusive of Barnham, and provides aims to address any existing issues. The implementation plan does not include any specific aspirations for Barnham.

2.3.2 WEST SUSSEX COUNTY COUNCIL LOCAL DESIGN GUIDE (2010) SUPPLEMENTARY GUIDANCE FOR RESIDENTIAL DEVELOPMENT PROPOSALS

West Sussex County Council Local Design Guide (2010) Supplementary Guidance for Residential Development Proposals (Local Design Guide) is guidance put forth by West Sussex to provide advice on some elements of the Manual for Streets (MfS) guidance in the following areas: Development Team Approach, Masterplanning, Visibility, Street Layouts and Widths, Parking Provision, Road Safety Audits and Quality Audits, and Highway Materials and Technical Approval Process. The guidance will be beneficial in understanding West Sussex's requirements for designing a residential development.

2.4 LOCAL PLANNING POLICY

2.4.1 ARUN LOCAL PLAN 2011-2031 (2018)

The Arun Local Plan was adopted by resolution of Full Council on 18th July 2018. The Local Plan sets out a long-term strategy of how Arun intends to address the challenges facing the area until 2031. The plan highlights Arun's requirement for job creation and improvements infrastructure to support the communities and details how these issues will be resolved. The Local Plan aims to protect the landscape, including coastal plains, setting of Arundel, Bognor Regis and Little Hampton and everything in between. The plan also sets out the criteria to be met in order to provide new and/or extensions to communities.

The plan highlights that the aim for Barnham will be to develop the role of the village as a well-connected large village and that the aim of the plan will be to enhance the range of shops, employment, housing, community facilities and local services by improving transport links.

The plan highlighted the following objectives for transport in Arun:

- ※ Reduction in the need for travel;
- ※ Promotion of sustainable transport modes;
- ※ Conserve natural resources and increase biodiversity by planning for climate change;
- ※ Create vibrant, attractive, safe and accessible towns and villages by building on their unique character;
- ※ Promote healthy lifestyles, provide good quality accessible community facilities and a safe environment to promote strong communities; and,
- ※ Strengthen Arun's economic wellbeing by providing more localised job opportunities by diversifying and improving the quality of employment in the area.

Policy T SP1 of the Local Plan, relating to Transport and Development, was created to ensure that growth in Arun strengthens the economic base, reduces congestion, tackles climate change and promotes a healthy lifestyle. The policy sets out that Arun would support development where:

- ※ It is designed to reduce the need for travel by car;
- ※ It gives priority to pedestrian and cycle movements;
- ※ It protects committed and indicative lines of major road schemes;
- ※ It incorporates appropriate levels of parking per the West Sussex guidance;
- ※ It is supported by a deliverable and appropriate Transport Assessment demonstrating the impacts on the local highway network; and,
- ※ It explains how the development would be designed to: accommodate efficient delivery of goods and supplies, gives priority to pedestrian and cycle movements with access to public transport, creates a safe and secure layout for all modes of transport, incorporates facilities for electric and hybrid vehicles, and considers the needs of disabled users of the site.

2.4.2 BARNHAM AND EASTERGATE NEIGHBOURHOOD DEVELOPMENT PLAN 2014-2029 (2014)

The Barnham and Eastergate Neighbourhood Development Plan sets out a vision for the area which sets out objectives on key themes such as transport, business, tourism, community, leisure, and well-being.

In terms of transport, the plan sets out the following issues:



- ⌘ Residents are heavily reliant on their vehicles because, whilst the villages are walkable, further out of the villages there are poor links;
- ⌘ B2233 carries local traffic between villages and has severe pinch points which slow down traffic and cause queuing, in particular in Barnham where it narrows to a single lane. Road safety improvements are needed to increase pedestrian and vehicle segregation through the villages before any substantial development could proceed;
- ⌘ Good access to limited bus services with coach services to major cities available within four miles of villages; and,
- ⌘ Improvements to bus services is considered important to residents of the villages.

The objective of the plan relating to transport involves promoting and supporting safe travel, including increasing cycle routes, reducing traffic by encouraging sustainable modes of travel and maintenance of footways.

The plan suggests road traffic mitigation schemes, improving cycle and pedestrian facilities and provisions or more, and ensuring suitable bus services in the villages and to surrounding areas.

Barnham, in particular has issues with car parking related to commuters using Barnham railway station. The village is considering means of addressing this issue.

3 EXISTING SITE AND HIGHWAY CONDITION

3.1 SITE LOCATION

Tars Farm is located in Barham in West Sussex County. The property is accessed from Church Lane which is subject to a 30mph speed limit. The proposed site is bounded by Church Lane to the southeast, residential properties to the north and south, and agricultural land to the west. The location of the site is shown in Figure 1 and is contained in Appendix A.

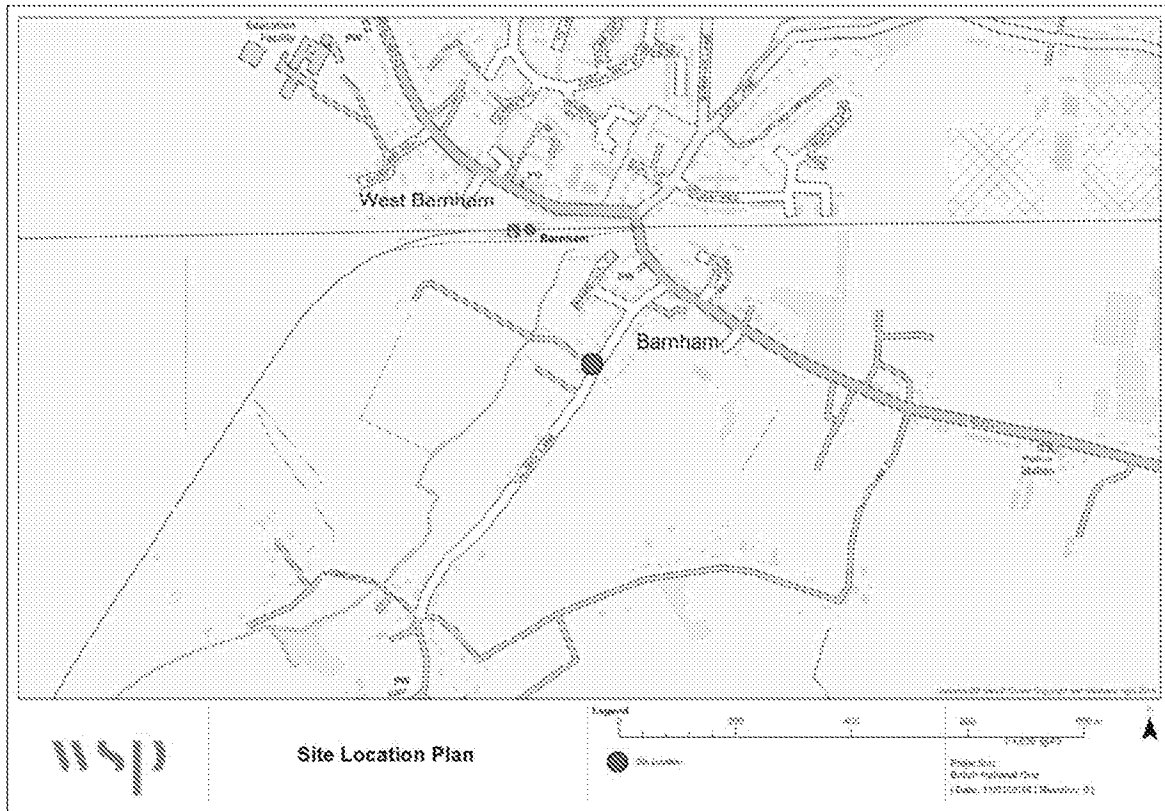


Figure 1: Site Location Plan

Tars Farm is currently accessible via a single driveway from Church Lane. The driveway provides access to an existing farmhouse at the front of the property and an equestrian livery/farm at the rear of the property. There is currently no separate pedestrian access point to the property, which is consistent with the surrounding area. The access operates with no issues of conflict between pedestrians and the vehicles already associated with the site.

3.2 EXISTING TARS FARM

Tars Farm currently consists of a residential dwelling at the front of the property and an equestrian livery with boarding for up to 10 horses at the rear of the property. Trips to the site currently consist of trips associated with the existing dwelling and boarders accessing the property to care for their horses. Additional trips to the site would be associated with deliveries, veterinarians and farriers. The site generates on average 20 two-way movements per day as boarders attend the site to care for their horses.



A high number of HGV movements would also be associated with the property at periods when horses are taken to and from events in a horse box (lorry). This demonstrates that the existing access currently accommodates HGV movements.

Servicing currently occurs from Church Lane with the occupier of the existing dwelling placing their bins kerbside.

3.3 LOCAL HIGHWAY NETWORK

3.3.1 CHURCH LANE

3.3.1.1 Characteristics

Church Lane is a Class D single carriageway road with an approximate width of 5 metres. Church Lane is subject to a 30mph speed limit in the vicinity of Tars Farm. Church Lane forms a priority Y junction with B2233 Yapton Road, approximately 165 metres to the northeast of the site.

There are no painted or posted parking restrictions; however, parking is not observed to occur on-street in the vicinity of the property.

On street parking is available on Marshall Close, approximately 120 metres northeast of the site.

Footways are not provided on either side of Church Lane; however, pedestrians are observed to frequently walk along the highway.

There are no formalised cycle facilities on Church Lane; however, as Church Lane is subject to a 30mph speed limit, it is considered suitable for cycling.

3.3.1.2 Existing Traffic

An Automatic Traffic Count (ATC) survey was commissioned to determine the existing volume of traffic using Church Lane. The ATC was placed at the location of the site access and was attached to the utilities pole at the site access. The location of the ATC is illustrated in Figure 2.



Figure 2: Location of ATC

Table 1 below provides a summary of the average volume of traffic using Church Lane during peak times:

Table 1: Existing Vehicle Traffic - Church Lane

Peak Hour	Northbound	Southbound	Two-way Traffic
AM Peak (08:00-09:00)	34	22	56
PM Peak (17:00-18:00)	23	27	50
Church Lane Peak (15:00-16:00)	26	32	58

The survey data demonstrates that Church Lane is lightly trafficked, with less than one vehicle per minute in the peak periods.

3.3.1.3 Existing Traffic Speeds

The ATC survey also provided a summary of the vehicle speeds observed on the highway for a 7-day period. Table 1 below provides a summary of the 5-day weekday and 7-day week average speeds of traffic using Church Lane.

Table 2: Average Speed

Peak Hour	Northbound	Southbound
5 Day Average	22 mph	22.8mph
7 Day Average	22.1 mph	23.1 mph

The data obtained from the ATC survey suggests that the existing traffic on Church Lane travel at speeds below the speed limit.

3.3.2 B2233 YAPTON ROAD

B2233 Yapton Road is a Class B single carriageway road with an approximate width of 7.5 metres. B2233 Yapton Road is subject to a 30mph speed limit in the vicinity of the junction with Church Lane. B2233 Yapton Road forms a priority Y junction with Church Lane, approximately 165 metres to the northeast of the site.

There are no parking restrictions or stopping restrictions on B2233 Yapton Road in the vicinity of Church Lane.

Footways are provided on the south side of B2233 Yapton Road west of the junction with Church Lane. Footways are provided on both sides of B2233 Yapton Road east of the junction with Church Lane, with an unmarked crossing with dropped kerbs and tactile paving at the junction with Church Lane. Another pedestrian crossing is provided west of the junction. This crossing also includes dropped kerbs and tactile paving with a central island pedestrian refuge with tactile paving.

There are no formalised cycle facilities on B2233 Yapton Road; however, as B2233 Yapton Road is subject to a 30mph speed limit, it is considered suitable for cycling.

3.4 SUSTAINABILITY DATA

The sustainability of a site is inherently linked to its location and access to facilities for active travel and public transport.

3.4.1 WALKING

The aim of land use and transport policy is to promote and encourage the choice of walking and cycling above all else where the need to travel exists. Therefore, it is reasonable to assume that walking is a viable and growing means of transport, and that new development should be designed to promote and encourage it.

In practice, the distance that an individual is likely to choose to walk depends on the individual circumstances, but it is reasonable to assume that over time, given current policies to encourage active travel, the propensity for individuals to walk, and to walk further, will increase.

The Institution of Highways and Transportation in their document 'Guidelines for Providing for Journeys on Foot' state that "walking accounts for over a quarter of all journeys and four fifths of journeys less than one mile".

PPG13 'A Guide to Better Practice' (2001) stated that people are prepared to walk up to 2 kilometres (1.24 miles). Whilst PPG13 has been superseded and is planning policy applicable to



England only, it is considered that this distance is still relevant and appropriate as a guide to what is acceptable and reasonable to many people.

The isochrone shown in Figure 3, and contained in Appendix B, shows a 2km walking area from the proposed development.

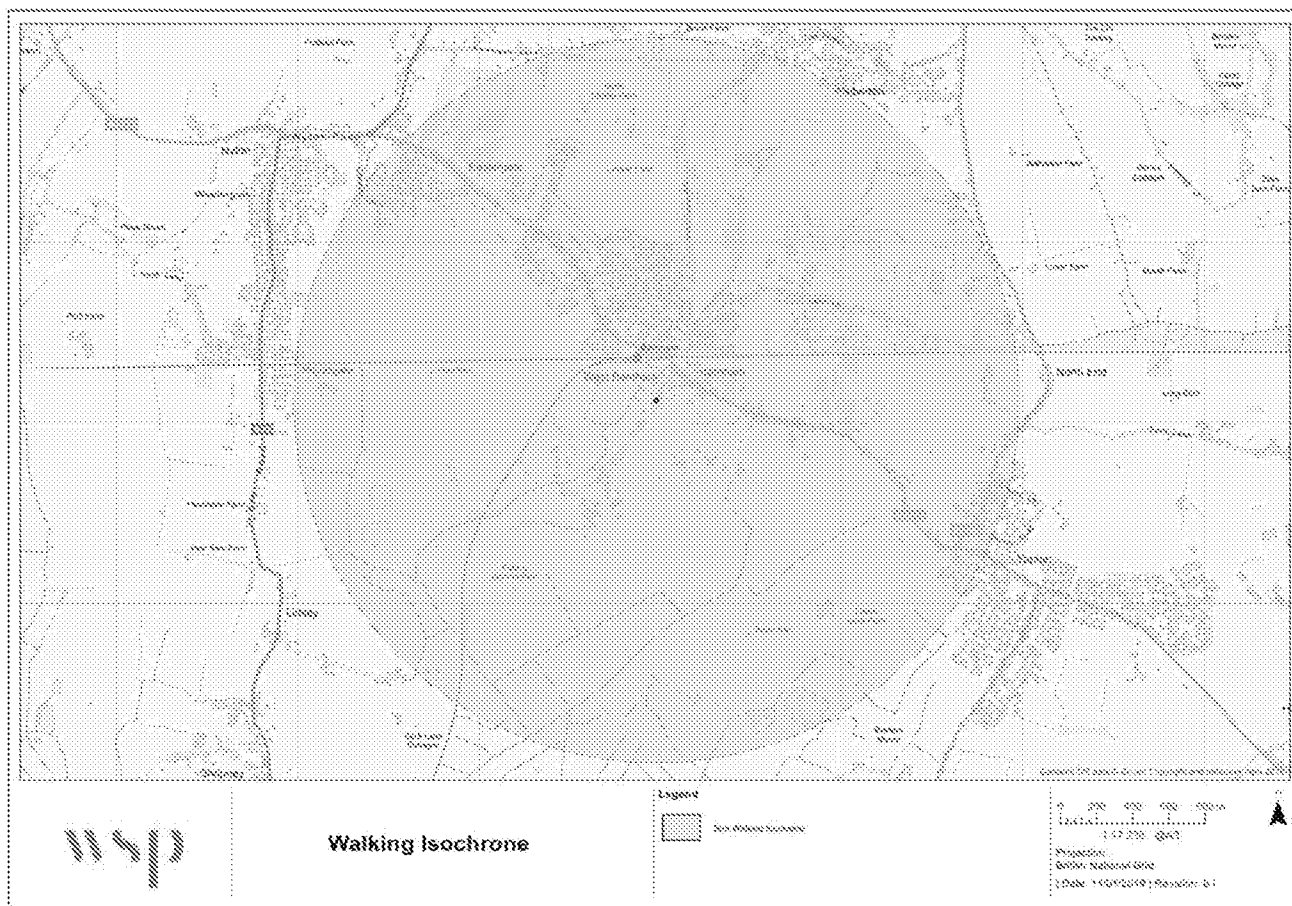


Figure 3: Walking Isochrone

The isochrone demonstrates that Tars Farm is within a 2km walking distance of numerous amenities and services, including a Tesco Express, Co-Operative Food and many food outlets. Tars Farm is also within walking distance of several bus stops and Barnham Station which provide access to the wider region.

Footways are not present on Church Lane; however, they are present on B2233 Yapton Road. The footways provided on B2233 Yapton Road have an approximate width of 1-2 metres.

Unmarked crossings are provided on the east junction arm of the junction of Church Lane with B2233 Yapton Road. The crossing is fitted with dropped kerbs and tactile paving. A crossing fitted with dropped kerbs, tactile paving and a pedestrian refuge island is provided on B2233 Yapton Road approximately 50m from the junction with Church Lane to allow safe refuge for pedestrians crossing the carriageway who require more time to cross safely.

3.4.2 CYCLING

The Department for Transport (DfT) in their "Transport Statistics on Cycling in Great Britain" state that the average length of a cycle journey is 3.84km (2.4 miles). PPG13 "A Guide to Better Practice"

(2001) identified that people were prepared to cycle up to 8km (5 miles); which, although the guidance has been superseded, is still considered appropriate. The DfT's LTN 2/08 "Cycle Infrastructure Design" (October 2008) states that 'in common with other modes, many utility cycle journeys are over short distances under three miles (4.8km), although for commuter journeys, a trip distance of up to five miles (7.2km) is not uncommon'.

It is therefore considered that a distance of 4km (2.5 miles) represents a reasonable cycling distance and that 8km (5 miles) is a maximum realistic range for cycle trips. A cycling isochrones plan is shown in Figure 4 and is contained in Appendix B.

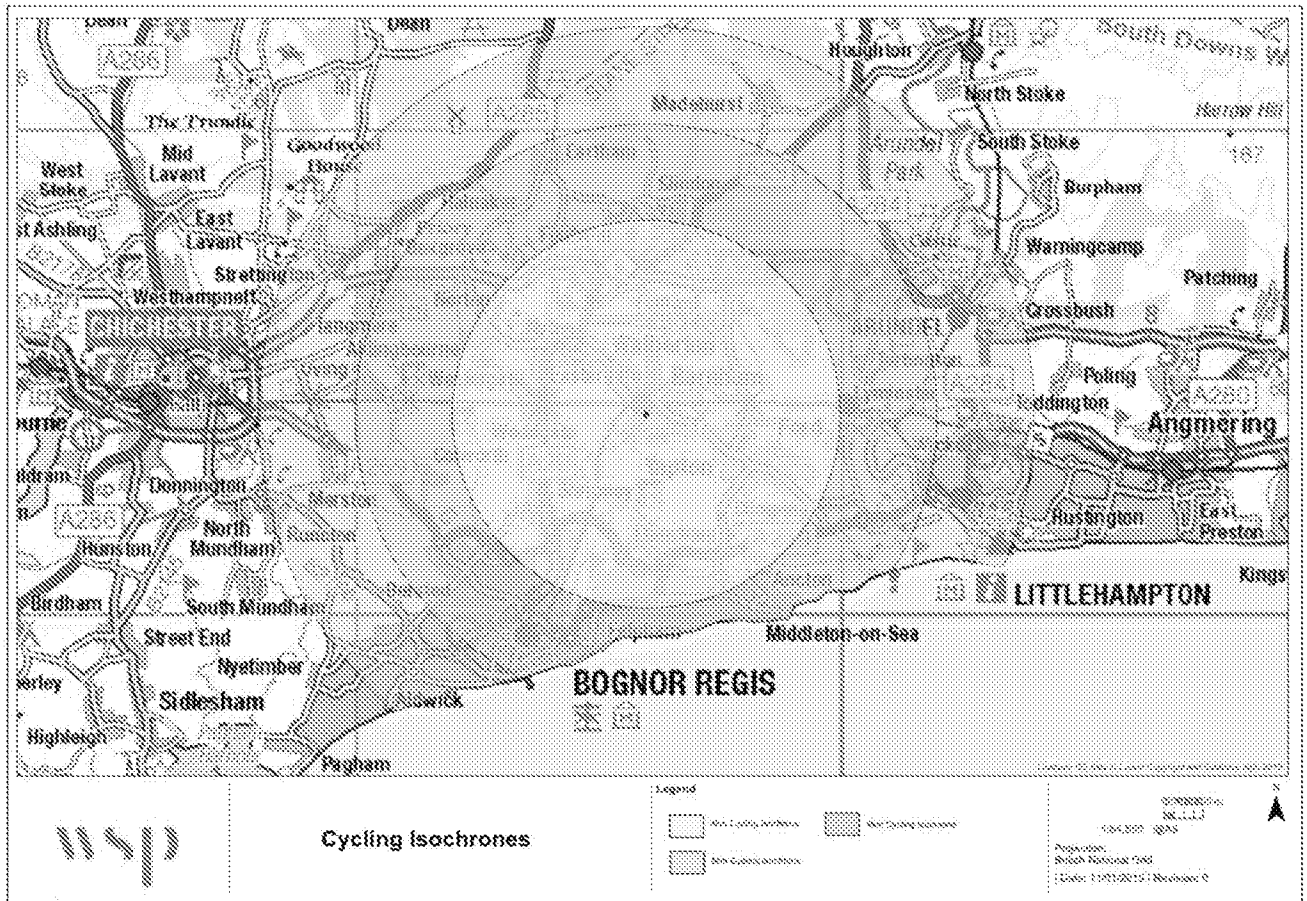


Figure 4: Cycling Isochrone

Dedicated cycle lanes are not provided in the vicinity of the site; however, Church Lane and B2233 Yapton Road are both subject to 30mph speed limits and are therefore considered suitable for cycling.

3.4.3 EXISTING PUBLIC TRANSPORT SERVICES

3.4.3.1 Public Transport – Bus Services

Tars Farm is located close to several bus stops which provide access to other public transport services. The majority of bus stops in the vicinity of the site are on B2233 Yapton Road. The nearest bus stops to Tars Farm are on the north and south sides of the B2233 Yapton Road approximately 320 metres to the northeast and provides service in the Bognor Regis and Walberton. Two services can be accessed from these stops. The bus stops consist of timetable information.



Additional bus stops are available along Lake Lane with the next nearest stop 350 metres northwest of Tars Farm on both sides of the road. The bus stop on the northwest side of Lake Land is served by four services and the bus stop on the southeast side of the road is served by three services.

A summary of the available services from bus stops in the vicinity of Tars Farm are shown in Table 3.

Table 3: Bus Services and Frequency

Service Number	Operator	Starts	Terminates	Areas Served	Frequency Mon - Fri
66A (anti-clockwise)	Compass Travel	Bognor Regis High Street	Walberton	Bognor Regis, Yapton, Barnham, Walberton	Three Times Daily
66C (clockwise)	Compass Travel	Walberton	Bognor Regis High Street	Bognor Regis, Yapton, Barnham, Walberton	Three Times Daily
85A	Compass Travel	Arundel	Chichester	Arundel, Walberton, Fontwell, Chichester	Twice Daily
85A	Compass Travel	Chichester	Arundel	Chichester, Barnham, Walberton, Arundel	Twice Daily
665	Stagecoach (school route)	Wick	Westergate Ormiston Academy	Wick, Littlehampton, Yapton, Walberton, Barnham, Westergate, Ormiston Academy	14:55
665	Stagecoach (school route)	Westergate Ormiston Academy	Wick	Wick, Littlehampton, Yapton, Walberton, Barnham, Westergate, Ormiston Academy	07:41

It is apparent from the summary of bus services that there is provision of regular services on weekdays to a variety of areas and amenities. The services are infrequent throughout the day. It should be noted that the above information was correct at the time of the Transport Statement being prepared (Issue 1).

3.4.3.2 Public Transport - Rail

The nearest station to Tars Farm is Barnham Station. The station is approximately 500 metres to the northwest of the site. Barnham Station has step free access. The station has ticket machines as well as a ticket office that is staffed on weekdays and weekends.

The station is managed by Southern Rail and provides regular services to Brighton, London, Littlehampton, Bognor Regis, Southampton and Portsmouth, a summary of the services from Barnham Station are shown in Table 4.



Table 4: Rail Services and Frequencies

Operator	Route	Areas Served	Frequency Mon-Fri
Southern	Southampton Central to Brighton	Southampton Central, Portsmouth Harbour, Portsmouth and Southsea, Fratton, Havant, Chichester, Bognor Regis, Barnham , Little Hampton, Goring-by-Sea, Durrington-on-Sea, West Worthing, Worthing, East Worthing, Lancing, Shoreham-by-Sea, Southwick, Fishersgate, Portslade, Aldrington, Hove, Brighton	Every 60 minutes
Southern	Portsmouth to Brighton (one off to London Victoria)	Portsmouth and Southsea, Fratton, Havant, Chichester, Bognor Regis, Barnham , Little Hampton, Goring-by-Sea, Durrington-on-Sea, West Worthing, Worthing, East Worthing, Lancing, Shoreham-by-Sea, Southwick, Fishersgate, Portslade, Aldrington, Hove, Brighton, Haywards Heath, Gatwick Airport, East Croydon, London Bridge, Clapham Junction, London Victoria	Every 60 minutes
Southern	Barnham to Brighton	Barnham , Little Hampton, Goring-by-Sea, Durrington-on-Sea, West Worthing, Worthing, East Worthing, Lancing, Shoreham-by-Sea, Southwick, Fishersgate, Portslade, Aldrington, Hove, Brighton	Every 30 minutes
Southern	Bognor-Regis to London Victoria	Bognor-Regis, Barnham , Little Hampton, Goring-by-Sea, Durrington-on-Sea, West Worthing, Worthing, East Worthing, Lancing, Shoreham-by-Sea, Southwick, Fishersgate, Portslade, Aldrington, Hove, Brighton, Haywards Heath, Gatwick Airport, East Croydon, London Bridge, Clapham Junction, London Victoria	Every 30 minutes
Southern	Brighton to Southampton Central	Brighton, Hove, Aldrington, Portslade, Fishersgate, Southwick, Shoreham by Sea, Lancing, East Worthing, Worthing, West Worthing, Durrington-on-Sea, Goring-by-Sea, Angmering, Littlehampton, Barnham , Bognor Regis, Chichester, Havant, Fratton, Portsmouth and Southsea, Portsmouth Harbour, Southampton Central	Every 60 minutes
Southern	London Victoria to Chichester	London Victoria, Clapham Junction, London Bridge, East Croydon, Gatwick Airport, Haywards Heath, Brighton, Hove, Aldrington, Portslade, Fishersgate, Southwick, Shoreham by Sea, Lancing, East Worthing, Worthing, West Worthing, Durrington-on-Sea, Goring-by-Sea, Angmering, Littlehampton Barnham , Bognor Regis, Chichester	Every 30 minutes
Great Western Railway	Bristol Temple Meads to Brighton	Bristol Temple Meads, Keynsham, Oldfield Park, Bath Spa, Bradford-on-Avon, Trowbridge, Westbury, Warminster, Salisbury, Romsey, Southampton Central, Fareham, Cosham, Havant, Chichester, Barnham , Worthing, Shoreham-by-Sea, Hove, Brighton	Daily
Great Western Railway	Brighton to Bristol Temple Meads	Brighton, Hove, Shoreham-by-Sea, Worthing, Barnham , Chichester, Havant, Cosham, Fareham, Southampton Central, Romsey, Salisbury, Warminster, Westbury, Trowbridge, Bradford-on-Avon, Bath Spa, Oldfield Park, Keynsham, Bristol Temple Meads	Twice Daily

It is apparent from the rail service summary that regular services are provided to many areas throughout the south of the UK, with connections available in Brighton and London. Frequent services are provided throughout the day, including morning and evening peak times. The above information was correct at the time of this Transport Statement being prepared (Issue 1).

3.4.4 CONCLUSION

The site is considered to be in a reasonably sustainable position as there is access to sustainable transport provision in the area. The frequency of buses allows visitors and residents of the proposed residential dwellings to travel by public transport, though it may not be the most convenient option. Furthermore, the proximity of Barnham railway station and its connectivity to the wider region will aide to reduce the need for private car trips.

3.5 COLLISION DATA

Personal Injury Collision (PIC) data was reviewed on the West Sussex collisions map webpage for the highway network surrounding the site for September 2012 to August 2017, having checked the Crash Map data base there have been no further PIC's. The data has been analysed and used to consider whether there are any existing highway issues in the vicinity of the site which may be exacerbated by the development proposals.

The data has been interrogated for a study area which includes a section of Church Lane and sections of the B2233 Yapton Road. The information confirmed there was one collision within close proximity of the site. The location of this collision is included in Figure 5.

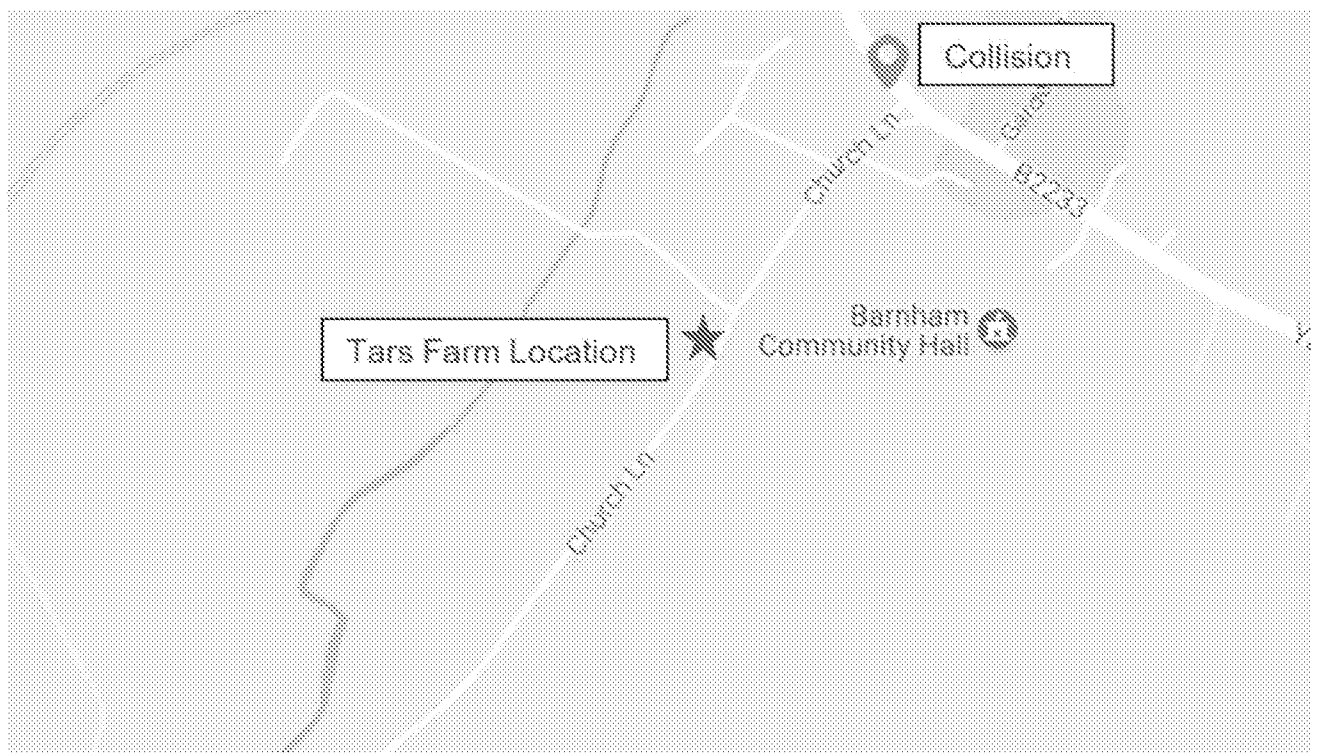


Figure 5: Collision Data 2017 (Image from <http://www.dashboard.sussexsrp.org.uk/collisions/map/>)

The collision occurred on the western arm of the junction of B2233 Yapton Road and Church Lane. It had one casualty and was considered slight in severity. Therefore, it is considered that there are



no inherent safety issues with the local highway network that would be exacerbated by any additional trips associated with the proposed development.

4 DEVELOPMENT PROPOSALS

This section describes the proposed residential development at Tars Farm, including changes to the access arrangements.

4.1 DEVELOPMENT PROPOSALS

The proposals comprise the demolition of the existing buildings on the site and construction of four (4) dwellings on land immediately to the rear of the property known as Tars Farm. The proposed residential dwellings will be accessed from Church Lane, via the existing driveway. The access to the site would be amended at the southern extent to provide a 4.5m kerb radius.

The proposed site plan for Tars Farm is provided in Figure 6 and contained in Appendix C.

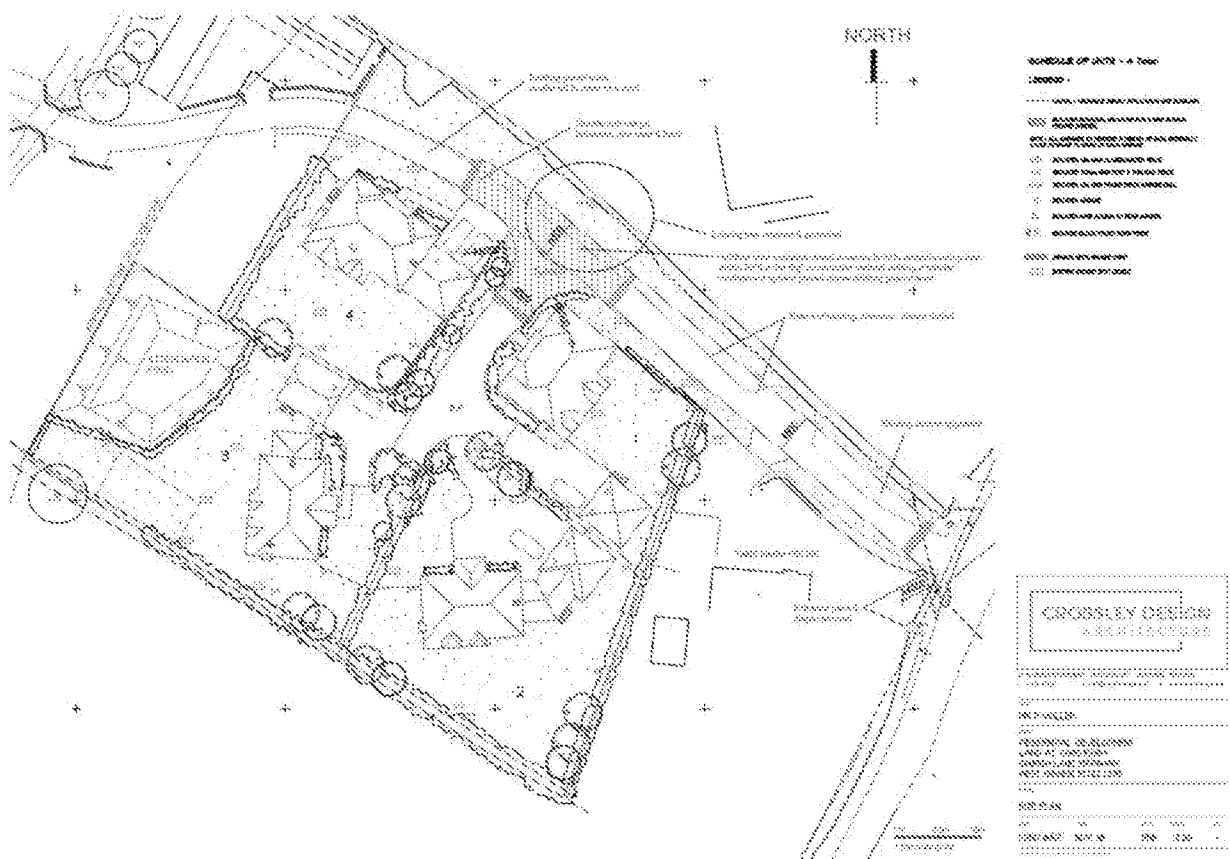


Figure 6: Proposed Site Plan

4.1.1 VEHICULAR AND PEDESTRIAN ACCESS

The existing vehicular and pedestrian access from Church Lane is to be retained as the access for both vehicles and pedestrians for the proposed development at the rear of Tars Farm. Whilst the existing access is to be retained, the access will be improved by removing the entrance steps and piers at the southern extent of the access to accommodate a 4.5m kerb radius.

There are no collisions associated with the access and the 85%ile recorded speeds on Church Lane are below the posted speed limit. Church Lane is also lightly trafficked with less than 60 two-way



A car parking provision of 8 driveway and 4 garage spaces would be provided, for a total of 12 spaces. This is considered an appropriate parking provision for the location and size of the dwellings and is consistent with the West Sussex County Council parking demand calculator tool.

4.2.2 DISABLED PARKING PROVISION

As part of the proposed development, disabled parking will be provided in line with West Sussex's Guidance for Parking in New Residential Development (September 2010). The guidance states that provision should be consistent with guidance set out in 'Manual for Streets' (MfS); therefore, MfS will be interrogated to determine suitable disabled parking for the development.

4.2.3 CAR PARKING LAYOUT

As part of the proposed development, parking will be provided in line with West Sussex's Guidance for Parking in New Residential Developments (September 2010). The guidance states that garages should be of a suitable size, at least 6m x 3m internally. If a garage meets these dimensions, it will be considered as an allocated parking space, in addition to any private driveways for the dwellings.

4.2.4 CYCLE PARKING PROVISION

As part of the proposed development, cycle parking will be provided in line with West Sussex's Guidance for Parking in New Residential Development (September 2010). The guidance provides direction for calculating demand of parking. The guidance sets out that:

- ⌘ Houses with up to four rooms, typically one or two bedroom houses, would require one cycle space per unit.
- ⌘ Houses with five or more rooms, typically three or more bedroom dwellings, would require two cycle spaces per unit.

Each dwelling will have a garage and will therefore have suitable storage for one or more bicycles.

5 TRAFFIC GENERATION AND DISTRIBUTION

This section will provide a description of the methodology used to obtain the trip generation profile and a summary of the trip generation profile.

5.1 METHODOLOGY

In order to predict the number of trips generated by Tars Farm before and after the proposed development of the residential dwellings, WSP has interrogated the TRICS Version 7.4.1 database. TRICS is industry standard software which provides trip rates during peak hours for a range of development types.

5.2 EXISTING TRIP GENERATION

The existing Tars Farm site comprises a single residential dwelling adjacent to Church Lane and an equestrian livery at the rear of the site with capacity for up to 10 horses.

As previously stated, it is expected that the livery would generate a minimum of 20 two-way vehicle trips daily, 10 into the site and 10 departing. The trips associated with the DIY liveries are likely to occur in the morning or evening peak periods. For the purposes of the assessment, it is assumed that five boarders would attend the site in the AM peak and five would access the site in the PM peak. Deliveries, veterinarian and farrier trips would also be generated by the site; however, it is likely that these trips would occur outside the peak hours.

To enable the predicted levels of trip generation to be obtained for the existing single dwelling at Tars Farm, a review of the TRICS database was undertaken to determine the number of multi-modal trips that are likely to be generated. The most robust scenario was deemed to be generated using the following search parameters:

- ※ Sites in England, excluding Greater London;
- ※ Category '03 – Residential – A – Houses Privately Owned' was chosen;
- ※ Monday to Friday surveys only;
- ※ Number of dwellings was chosen as the trip parameter;
- ※ A parameter range of 6 to 20 was selected.

Based on the above search parameters, a total of 13 relevant multi-modal surveys were deemed suitable for comparison to Tars Farm development; however, one was deselected as the area surrounding the site was commercially developed. The multi-modal trip rates per resident for the AM and PM peak periods are shown in Table 5. The TRICS report is included in Appendix E.



Table 5: TRICS Trip Rates – Residential Houses

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Vehicles	0.200	0.400	0.600	0.310	0.152	0.462
Cyclist	0.007	0.007	0.014	0.000	0.000	0.000
Vehicle Occupants	0.301	0.572	0.882	0.393	0.193	0.586
Pedestrians	0.117	0.255	0.372	0.069	0.028	0.097
Public Transport Users	0.000	0.000	0.000	0.000	0.014	0.014

The trip rates shown in Table 5 have been applied to the existing Tars Farm site, which currently has one residential dwelling. Table 6 summarises the trips generated by the site.

Table 6: Existing Trip Generation – One Dwelling

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Vehicles	0	0	1	0	0	0
Cyclist	0	0	0	0	0	0
Vehicle Occupants	0	1	1	0	0	1
Pedestrians	0	0	0	0	0	0
Public Transport Users	0	0	0	0	0	0
Total People	0	1	2	0	0	1

*Any errors in arithmetic are due to rounding.

As demonstrated in Table 6, the existing residential dwelling known as Tars Farm is likely to generate a total of two (2) two-way person trips in the AM peak and one (1) two-way person trips in the PM peak. There are one (1) two-way vehicle trips generated in the AM peak and no vehicle trips in the PM peak.

The total existing trip generation for the site, inclusive of the residential dwelling and the equestrian livery, is anticipated to be 11 two-way trips in the AM peak and 10 two-way trips in the PM peak.



5.3 PROPOSED TRIP GENERATION

In order to calculate the number of trips for the proposed dwellings at the rear of Tars Farm, the same trip rates that were obtained for the trip generation for the existing dwelling have been applied to proposed dwellings. The proposed trip generation based on four (4) dwellings is shown in Table 7.

Table 7: Proposed Trip Generation – Four (4) Dwellings

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Vehicles	1	2	2	1	1	2
Cyclist	0	0	0	0	0	0
Vehicle Occupants	1	2	4	1	1	2
Pedestrians	0	1	1	0	0	0
Public Transport Users	0	0	0	0	0	0
Total People	2	5	7	2	2	4

*Any errors in arithmetic are due to rounding.

As demonstrated in Table 7, the proposed development at the rear of Tars Farm is likely to generate a total of seven (7) two-way person trips in the AM peak and four (4) two-way person trips in the PM peak. Of these trips, three (3) two-way trips would be by vehicles in the AM peak and two (2) two-way trips would be made by vehicles in the PM peak. The trip generation also demonstrates that there would be four (4) two-way and two (2) two-way trips generated by vehicle occupants in the AM and PM peak hours, respectively. This is not considered likely to have a detrimental impact on the surrounding highway network.

The trips generated by the proposed dwelling at the rear of Tars Farm demonstrates that a total of 1 two-way pedestrian trip will likely occur in the AM peak; however, no two-way pedestrian trips would occur in the PM peak. No two-way trips are anticipated to be generated by public transport users or cyclists in any peak.

5.4 NET IMPACT

The proposed development of four (4) dwellings at the rear of the site is likely to generate an additional three (3) two-way vehicle movements in the AM peak and two (2) two-way vehicle movements in the PM peak. The increase in vehicles as a result of the additional dwellings represents an increase in trips of one vehicle every 60 minutes and one vehicle every 30 minutes in the AM and PM peak hours, respectively. It is therefore considered that the proposed development would not have a severe impact on the local highway network or the operation of the existing access to the site access.

6 IMPACTS OF THE DEVELOPMENT

The following section provides an assessment of the potential impact associated with the proposed residential dwellings at the rear of Tars Farm and the associated increase in residents.

6.1 ACCESS

As outlined in Section 5 of the Transport Statement, the site access currently operates with an estimated 11 two-way vehicle movements in the AM peak and 10 two-way vehicle movements in the PM peak. The existing access safely and successfully accommodates both pedestrian and vehicle trips associated with the existing uses, including deliveries, veterinary and farrier visits, and HGV/lorry movements. The addition of the proposed development traffic of three (3) two-way vehicle movements in the AM peak and two (2) two-way vehicle movements in the PM peak represents an increase in one vehicle every 20 minutes in the AM peak and one vehicle movement every 30 minutes in the PM peak, respectively. It is considered that this increase is unlikely to have a severe impact on the current operation and safety the driveway access and conflict between the new and existing trips is anticipated to be negligible. Whilst the existing access is to be retained, the access will be improved by removing the entrance steps and piers at the southern extent of the access to accommodate a 4.5m kerb radius.

6.2 ROAD NETWORK

As outlined in Section 5 of the Transport Statement, the proposed development at Tars Farm would result in a total increase of 1 two-way vehicle trip in the AM peak and 2 two-way vehicle trips in the PM peak hour. The ATC survey data summarised in Section 3 of the Transport Statement, demonstrated that the peak hours see an average of 56 and 50 two-way trips in the AM and PM peaks, respectively. The increase in the number of vehicle trips as a consequence of the proposed development is not expected to have a severe impact on the operation of the highway network and conflict between the new trips and existing trips is anticipated to be negligible.

A review of the collision data demonstrates that there is only one (1) slight collision in the vicinity of the site. Therefore, it is not expected that the additional trips generated by the proposed residential dwellings would have a severe impact on the safety of the highway network, as there are no inherent safety concerns with the highway that would be exacerbated by the additional traffic.

6.3 PARKING

The proposed development would require parking and the proposed parking provisions would be provided in line with West Sussex's Guidance for Parking in New Residential Development (September 2010). This will ensure that vehicles do not park on the local highway network.

6.4 PEDESTRIAN AND CYCLE ACCESS

Tars Farm is within walking and cycling distance of several shops and amenities, including a Tesco and Coop. The local pedestrian network is of a reasonable standard, with continuous footways on B2233 Yapton Road and unmarked crossings at the junction of Church Lane and B2233 Yapton Road. The level of pedestrian trips generated by the proposed dwellings, equivalent to 4 two-way trips in the AM peak and 1 two-way trip in the PM peak, can be easily accommodated on the surrounding highway network.



Tars Farm is also accessible by bicycle. Whilst cycle lanes are not provided in the vicinity of the proposed development site, Church Lane and B2233 Yapton Road are subject to 30mph speed limits and are therefore considered suitable for cycling. The level of cycle trips generated by the extension of Tars Farm can be easily accommodated on the surrounding highway network.

A review of the collision data demonstrates that there have been no collisions within the vicinity of the site. Therefore, it is demonstrated that cyclists are safely accommodated within the existing facilities.

6.5 PUBLIC TRANSPORT

Tars Farm is within walking distance of four bus stops which provide access to bus routes 66A, 66C, 85A and 665. There are services providing access to a variety of areas and amenities, including Bognor Regis, Walberton, Arundel and Chichester. Barnham station has regular train services into Greater London and destinations in the south of the UK. Due to the nature of the proposed development and the level of public transport trips generated by the site, it is considered that the additional trips generated by the proposed extension would not have a significant impact on the public transport in the surrounding area.

7 CONCLUSION

WSP UK Limited has been appointed by Paul Voller as land owner to prepare a Transport Statement Letter for the purposes of obtaining pre-application advice for a development of four (4) dwellings at the rear of Tars Farm in Barnham, West Sussex.

This Transport Statement has been prepared in line with the National Planning Policy Framework (March 2012). Local Planning Policy has also been taken into account including the Arun Local Plan 2011-2031 (2014), West Sussex Transport Plan 2011 – 2026 (2011), and the Barnham and Eastergate Neighbourhood Development Plan 2014-2029 (2014).

An assessment has been made of the site in relation to accessibility by sustainable modes of transport. The assessment has shown that the site can be accessed by several bus services that provide access to Bognor Regis, Walberton, Chichester, Arundel and Littlehampton. Barnham Station is within 500m walking distance from the site and provides access to London, Brighton, Littlehampton, Bognor Regis, Southampton and Portsmouth. Pedestrian facilities are provided in the vicinity of the site, including footways on both sides of B2233 Yapton Road and unmarked crossings provided on B2233 Yapton Road, one at the junction with Church Lane and one further east along Yapton Road. No formal cycle facilities are provided in the vicinity of the site; however, Church Lane and B2233 Yapton Road are subject to 30mph speed limits and are therefore considered suitable for cycling.

An assessment has been undertaken of the multi-modal trips generated by the proposed development. The proposed development is expected to generate an additional three (3) two-way vehicle trip in the AM peak and two (2) two-way vehicle trips in the PM peak. This is not considered to have a detrimental impact on the surrounding highway network as the existing traffic levels in the vicinity of the site on Church Lane are low.

An assessment of the impact on the existing access as a consequence of the additional trips generated by the site was considered. The proposed additional multimodal trips are not considered likely to have a detrimental impact on the operation or safety of the existing access arrangements as the existing access currently accommodates the currently levels of pedestrian, vehicle and HGV traffic safely.

It is the view of the Transport Statement that, in highway and transportation terms, the proposed residential development at the rear of Tars Farm in Barnham will not have a severe impact on the surrounding highway network.

Appendix A: Site Location Plan

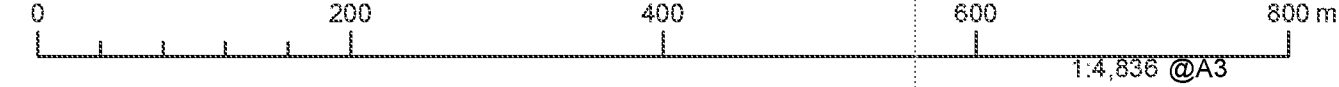


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Site Location Plan

Legend



 Site Location



Projection:
British National Grid
| Date: 11/01/2019 | Revision: 0 |

Appendix B: Isochrones



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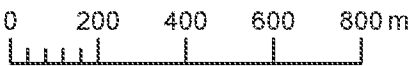


Walking Isochrone

Legend



2km Walking Isochrone

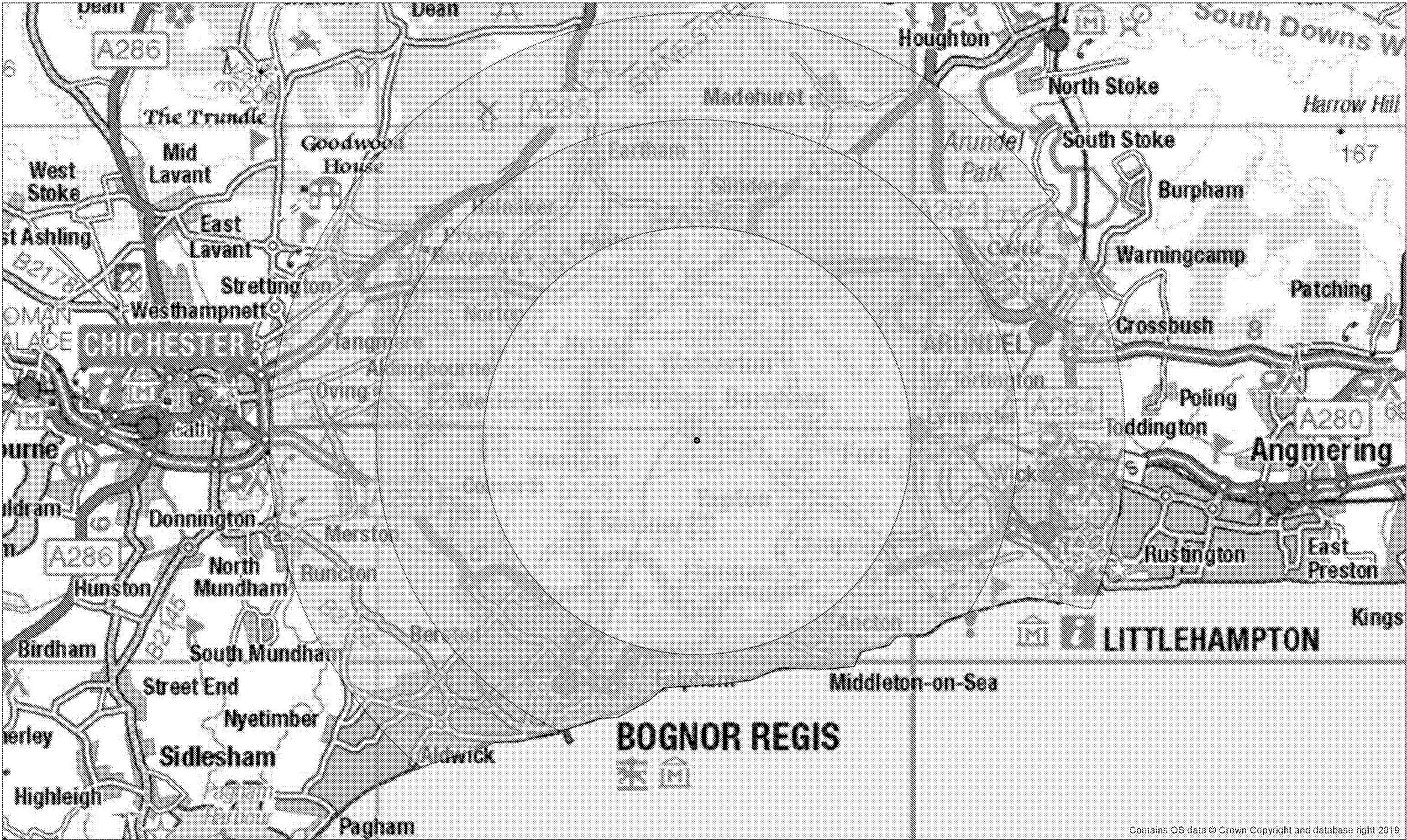


1:17,236 @A3

Projection:
British National Grid

| Date: 11/01/2019 | Revision: 0 |





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Cycling Isochrones

Legend

- 4km Cycling Isochrone
- 6km Cycling Isochrone
- 8km Cycling Isochrone

0 200 400 600 800 1000 m
1:64,550 @A3

Projection:
British National Grid
| Date: 11/01/2019 | Revision: 0



Appendix C: Site Layout Plan

Appendix D: Swept Path Analysis

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Appendix E: TRICS Report

Calculation Reference: AUDIT-637801-171120-1109

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED

MULTI-MODAL VEHICLESSelected regions and areas:

04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	1 days
	SF SUFFOLK	2 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	2 days
	WK WARWICKSHIRE	2 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	1 days
	MS MERSEYSIDE	1 days
09	NORTH	
	TW TYNE & WEAR	1 days

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

Secondary Filtering selection:

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

Parameter: Number of dwellings
 Actual Range: 6 to 18 (units:)
 Range Selected by User: 6 to 20 (units:)

Public Transport Provision:

Selection by: Include all surveys

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

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	1 days
Tuesday	3 days
Wednesday	3 days
Thursday	2 days
Friday	3 days

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

Selected survey types:

Manual count	12 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	7
Edge of Town	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	11
No Sub Category	1

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

Secondary Filtering selection:

Use Class:

C3

11 days

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

Population within 1 mile:

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

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

Car ownership within 5 miles:

0.6 to 1.0	8 days
1.1 to 1.5	4 days

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

Travel Plan:

No

12 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

12 days

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

LIST OF SITES relevant to selection parameters

1	CA-03-A-04	DETACHED		CAMBRIDGESHIRE
	THORPE PARK ROAD			
	PETERBOROUGH			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	9		
	Survey date: TUESDAY	18/10/11		Survey Type: MANUAL
2	CH-03-A-08	DETACHED		CHESHIRE
	WHITCHURCH ROAD			
	BOUGHTON HEATH			
	CHESTER			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	11		
	Survey date: TUESDAY	22/05/12		Survey Type: MANUAL
3	MS-03-A-03	DETACHED		MERSEYSIDE
	BEMPTON ROAD			
	OTTERSPOOL			
	LIVERPOOL			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	15		
	Survey date: FRIDAY	21/06/13		Survey Type: MANUAL
4	NF-03-A-03	DETACHED HOUSES		NORFOLK
	HALING WAY			
	THETFORD			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:	10		
	Survey date: WEDNESDAY	16/09/15		Survey Type: MANUAL
5	NY-03-A-13	TERRACED HOUSES		NORTH YORKSHIRE
	CATTERICK ROAD			
	OLD HOSPITAL COMPOUND			
	CATTERICK GARRISON			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	10		
	Survey date: WEDNESDAY	10/05/17		Survey Type: MANUAL
6	SF-03-A-04	DETACHED & BUNGALOWS		SUFFOLK
	NORMANSTON DRIVE			
	LOWESTOFT			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	7		
	Survey date: TUESDAY	23/10/12		Survey Type: MANUAL
7	SF-03-A-05	DETACHED HOUSES		SUFFOLK
	VALE LANE			
	BURY ST EDMUNDS			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:	18		
	Survey date: WEDNESDAY	09/09/15		Survey Type: MANUAL
8	SH-03-A-03	DETACHED		SHROPSHIRE
	SOMERBY DRIVE			
	BICTON HEATH			
	SHREWSBURY			
	Edge of Town			
	No Sub Category			
	Total Number of dwellings:	10		
	Survey date: FRIDAY	26/06/09		Survey Type: MANUAL
9	SH-03-A-06	BUNGALOWS		SHROPSHIRE
	ELLESMERE ROAD			
	SHREWSBURY			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:	16		
	Survey date: THURSDAY	22/05/14		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

10	TW-03-A-02	SEMI-DETACHED	TYNE & WEAR
	WEST PARK ROAD		
	GATESHEAD		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	16	
	Survey date: MONDAY	07/10/13	Survey Type: MANUAL
11	WK-03-A-01	TERRACED/ SEMI / DET.	WARWICKSHIRE
	ARLINGTON AVENUE		
	LEAMINGTON SPA		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	6	
	Survey date: FRIDAY	21/10/11	Survey Type: MANUAL
12	WK-03-A-02	BUNGALOWS	WARWICKSHIRE
	NARBERTH WAY		
	POTTERS GREEN		
	COVENTRY		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	17	
	Survey date: THURSDAY	17/10/13	Survey Type: MANUAL

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
ST-03-A-06	Area too commercial

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	12	0.097	12	12	0.290	12	12	0.387
08:00 - 09:00	12	12	0.200	12	12	0.400	12	12	0.600
09:00 - 10:00	12	12	0.097	12	12	0.200	12	12	0.297
10:00 - 11:00	12	12	0.228	12	12	0.152	12	12	0.380
11:00 - 12:00	12	12	0.152	12	12	0.234	12	12	0.386
12:00 - 13:00	12	12	0.228	12	12	0.214	12	12	0.442
13:00 - 14:00	12	12	0.200	12	12	0.172	12	12	0.372
14:00 - 15:00	12	12	0.172	12	12	0.179	12	12	0.351
15:00 - 16:00	12	12	0.262	12	12	0.283	12	12	0.545
16:00 - 17:00	12	12	0.241	12	12	0.159	12	12	0.400
17:00 - 18:00	12	12	0.310	12	12	0.152	12	12	0.462
18:00 - 19:00	12	12	0.234	12	12	0.179	12	12	0.413
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.421			2.614			5.035

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

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

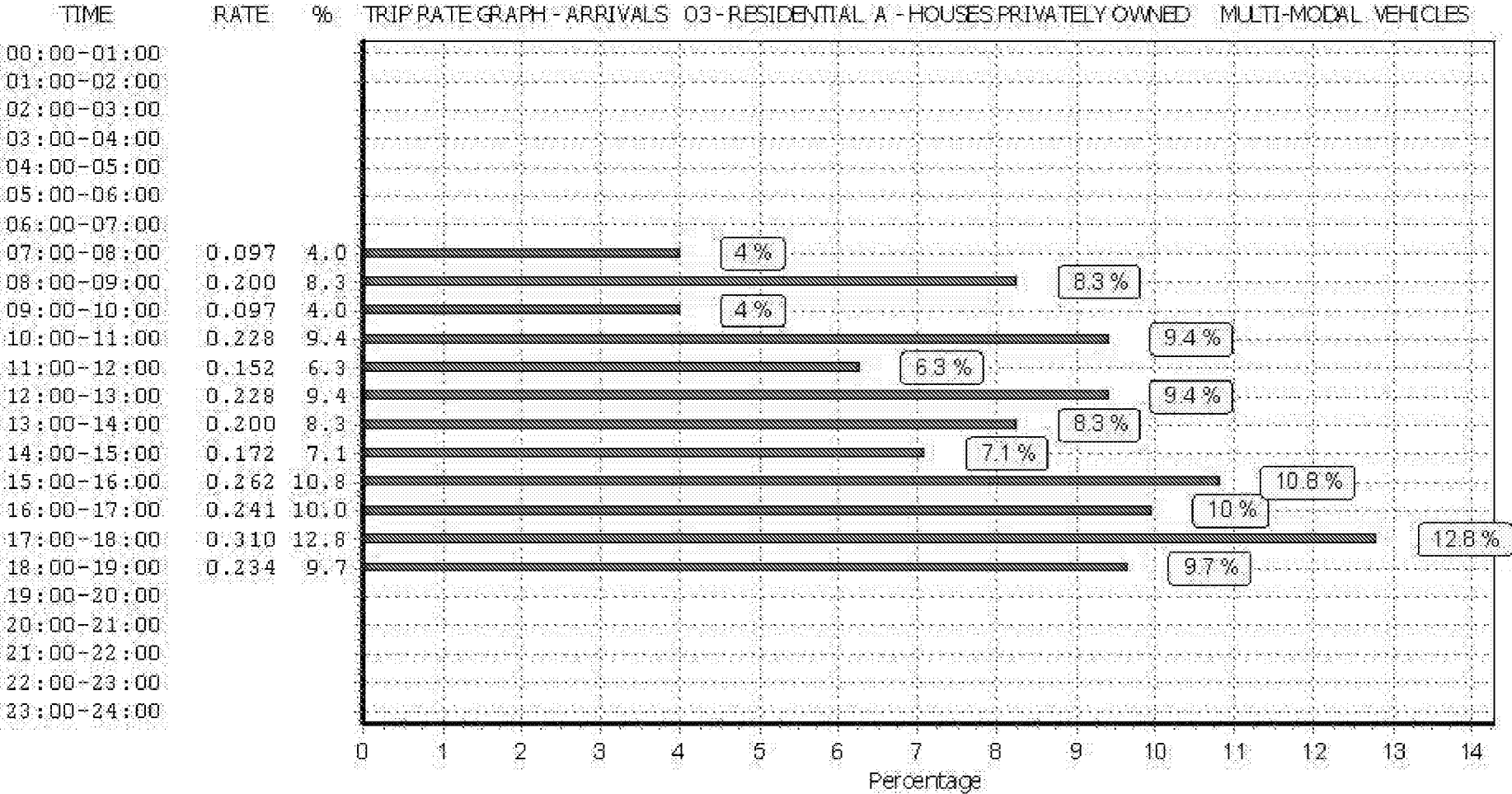
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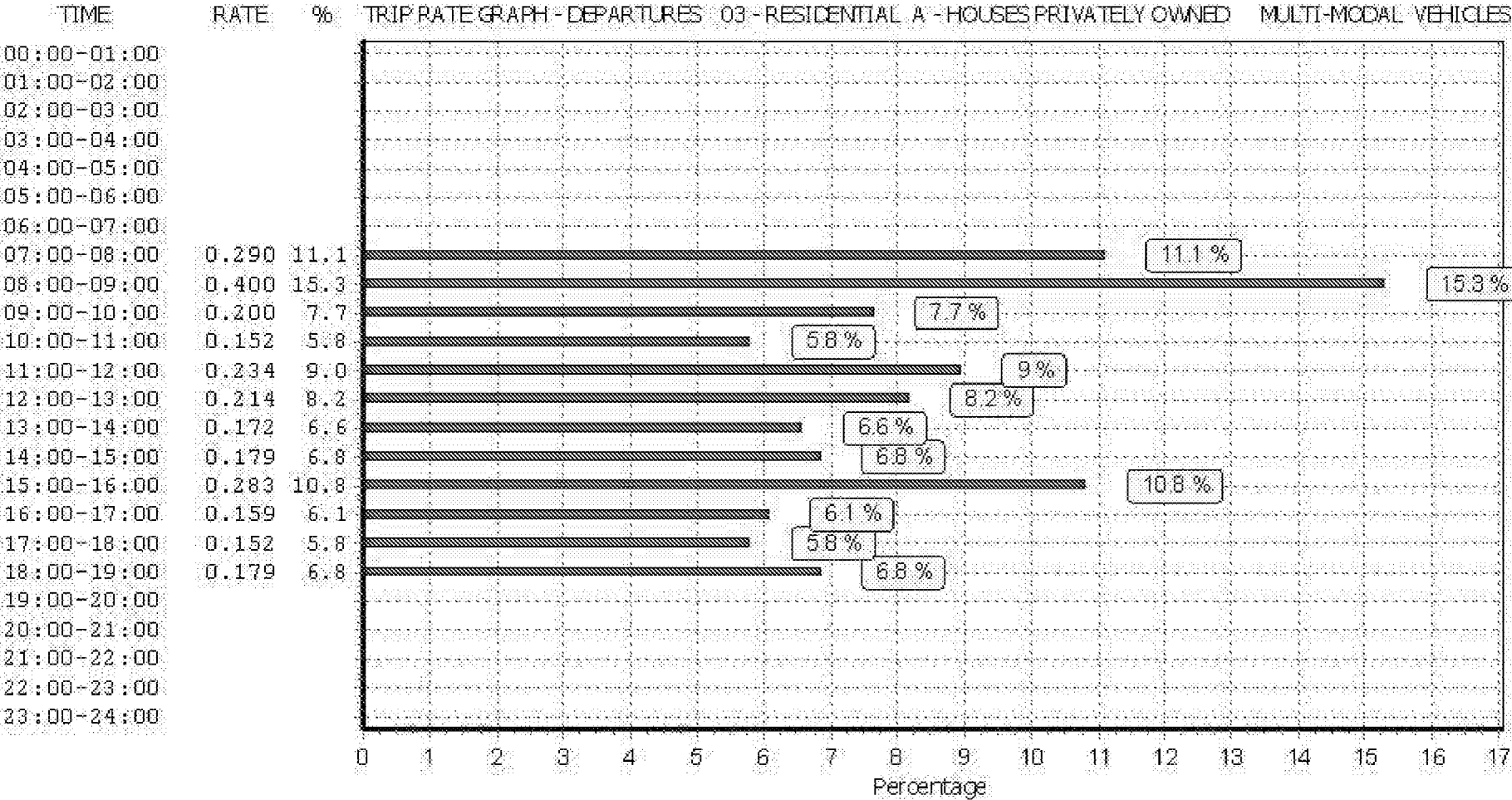
Parameter summary

Trip rate parameter range selected:	6 - 18 (units:)
Survey date range:	01/01/09 - 10/05/17
Number of weekdays (Monday-Friday):	12
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	1

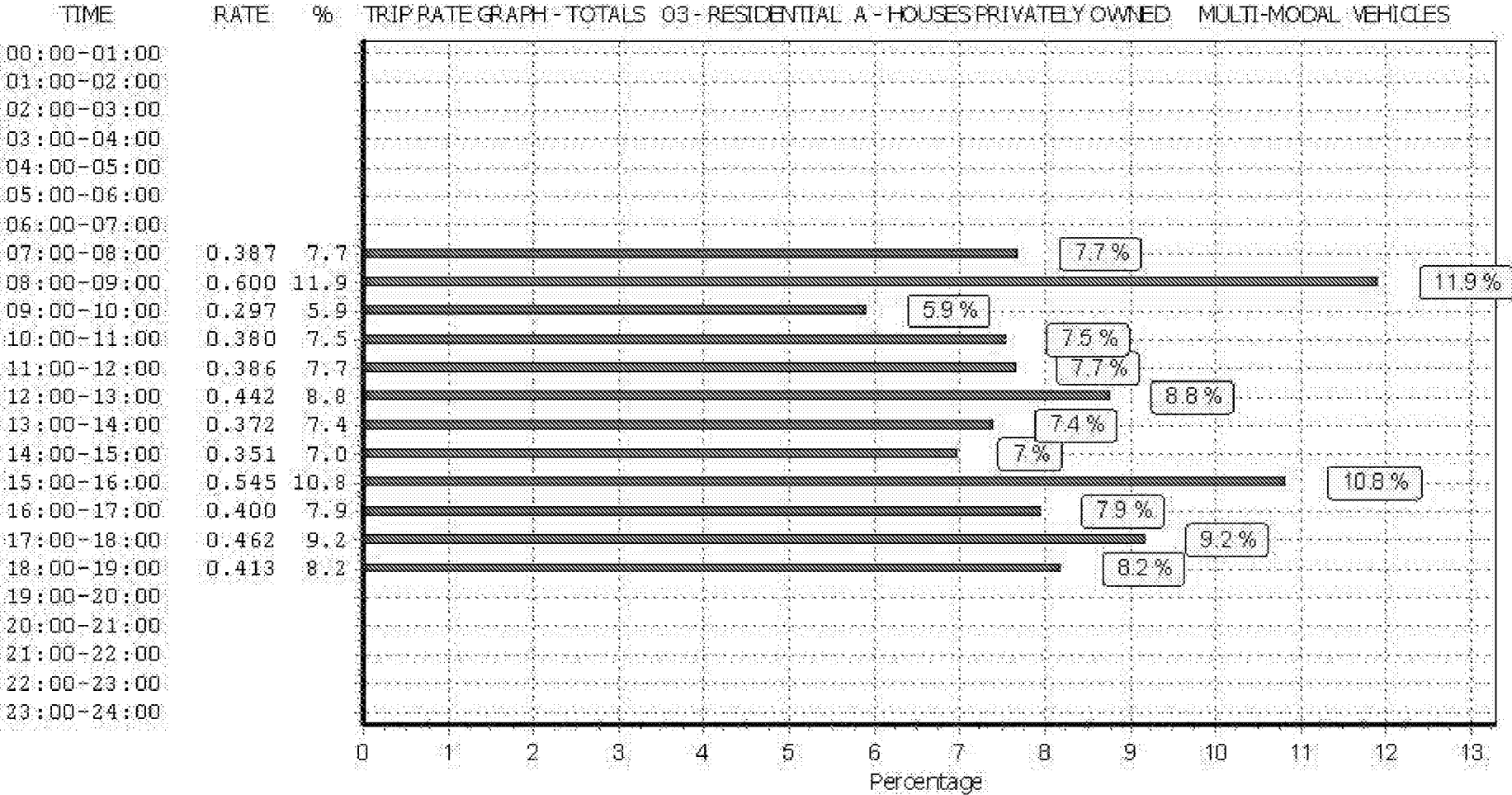
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TAXIS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	12	0.000	12	12	0.000	12	12	0.000
08:00 - 09:00	12	12	0.021	12	12	0.021	12	12	0.042
09:00 - 10:00	12	12	0.000	12	12	0.000	12	12	0.000
10:00 - 11:00	12	12	0.014	12	12	0.014	12	12	0.028
11:00 - 12:00	12	12	0.007	12	12	0.007	12	12	0.014
12:00 - 13:00	12	12	0.000	12	12	0.000	12	12	0.000
13:00 - 14:00	12	12	0.007	12	12	0.007	12	12	0.014
14:00 - 15:00	12	12	0.007	12	12	0.000	12	12	0.007
15:00 - 16:00	12	12	0.007	12	12	0.014	12	12	0.021
16:00 - 17:00	12	12	0.000	12	12	0.000	12	12	0.000
17:00 - 18:00	12	12	0.000	12	12	0.000	12	12	0.000
18:00 - 19:00	12	12	0.007	12	12	0.007	12	12	0.014
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.070			0.070			0.140

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

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

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Parameter summary

Trip rate parameter range selected:	6 - 18 (units:)
Survey date date range:	01/01/09 - 10/05/17
Number of weekdays (Monday-Friday):	12
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	1

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.