

PLANNING STATEMENT
Outline Residential Development
102 East Road
West Mersea

Appendix IX
Transport Statement



Transport Statement

Proposed Residential Development East Road, West Mersea

on behalf of

**Johnson Dennehy Planning
Partnership**

February 2021

INTERMODAL TRANSPORTATION

Hunters Court, Debdon Road, Saffron Walden, Essex CB11 4AA Tel: 01799 529529 Fax: 01799 529530 e-mail: enquiries@inter-modal.co.uk

IT2211



CONTENTS

1	INTRODUCTION	1
2	SITE LOCATION AND LOCAL ROAD NETWORK	2
3	PROPOSED DEVELOPMENT	3
4	ACCESSIBILITY BY NON-CAR MODES	4
5	DEVELOPMENT TRAFFIC GENERATION	7
6	PARKING PROVISION	9
7	CONCLUSIONS	11

DRAWINGS

IT2211/TS/01	SITE LOCATION IN LOCAL AND WIDER CONTEXT
IT2211/SK/001	SITE ACCESS JUNCTION ARRANGEMENT

APPENDICES

APPENDIX A	SCOPING CORRESPONDENCE
APPENDIX B	PROPOSED SITE LAYOUT PLAN
APPENDIX C	AUTOTRACK SWEPT PATHS
APPENDIX D	TRICS OUTPUTS



1 INTRODUCTION

- 1.1 Intermodal Transportation Ltd (ITL), an independent consultancy specialising in highway engineering and transportation planning, have been appointed by Johnson Dennehy Planning Partnership to produce a Transport Statement (TS) report to support the planning application for a residential scheme on land to the south of East Road in West Mersea, Essex.
- 1.2 In producing this report, representatives of ITL have agreed the scope of the study with the Local Highway Authority (LHA). A copy of the scoping correspondence is contained at Appendix A of this report.
- 1.3 In accordance with the aforementioned scoping email, the following issues have been investigated as part of this study: -
- Description of the local road network in the vicinity of the site;
 - Description of the development proposal;
 - Consideration of the accessibility of the site by non-car transport modes;
 - Calculation of the level of traffic that would be generated by the development proposal during the typical weekday AM and PM peak hours using the TRICS database;
 - Consideration of the adequacy of the proposed vehicular access arrangements including undertaking Auto Track swept analysis; and
 - Consideration of the proposed parking provision at the development in accordance with the relevant local parking standards.



2 SITE LOCATION AND LOCAL ROAD NETWORK

Site Location

- 2.1 The site measures 1.6 hectares and is located to the south of East Road in West Mersea. West Mersea is a town on Mersea Island and is within Colchester Borough Council.
- 2.2 The site is currently an open field and is bounded by residential dwellings and The Fox Inn to the north, with East Road located immediately beyond. Residential dwellings and Cross Lane are located to the west. The southern and eastern boundaries of the site are bounded by undeveloped land. The site location in the local and wider context is shown in Drawing IT2211/TS/01.

Local Road Network

- 2.3 Vehicular access to the site would be achieved via East Road, which runs in an east to west alignment and is subject to a speed limit of 30mph. East Road forms a cross road junction with Cross Lane and Dawes Lane approximately 120m to the west of the site, with the latter two forming the minor arm of the cross road junction.
- 2.4 East Road forms a sharp bend with Chapmans Lane, approximately 400m to the east of the site access. Waldegraves Lane leading to Waldegraves Holiday Park is located off the bend, thereby forming a priority junction with East Road and Chapmans Lane.
- 2.5 Further west of the site, East Road forms a priority junction with the B1025, with the latter forming a sharp bend. Hence East Road serves as the minor arm off the bend. The B1025 forms a similar priority junction with Colchester Road further north of East Road, before forming another sharp bend, at which point it continues northwards towards Colchester.
- 2.6 Within Colchester, the B1025 connects with the A134 forming a roundabout junction, with Colchester Town railway station located within the north-eastern quadrant of the roundabout. The A134 provides access to the A12 Colchester Bypass.



3 PROPOSED DEVELOPMENT

- 3.1 The development proposal consists of an outline planning application for 55 residential units. A copy of the architect's layout plan for the development is contained at Appendix B of this report.
- 3.2 As previously indicated, vehicular access to the site would be achieved from a new access located off East Road, forming a priority junction. This would involve the demolition of house number 102 East Road. Drawing IT2211/SK/001 shows the proposed site access arrangements.
- 3.3 The formula contained within Manual for Streets (MfS) gives a visibility splay 'y' distance of 43m for a vehicle speed of 30mph and, in this location, an 'x' distance of 2.4m would be appropriate. A visibility splay of 2.4m x 43m would be achievable to the left and right from the site access along East Road, contained within land controlled by the applicant and the limits of the public highway.
- 3.4 AutoTrack swept path analyses have been undertaken as part of the study and confirm that a large 4 axle refuse vehicle and a fire tender would be able to acceptably access and turn within the proposed development and egress the proposed site access. A copy of the swept paths is contained at Appendix C of this report.
- 3.5 The acceptability of the proposed parking provision at the development in the light of the Essex County Council parking standards is discussed in Chapter 6 of this report.



4 ACCESSIBILITY BY NON-CAR MODES

Walking

- 4.1 Walking and cycling are the two most sustainable modes of travel and can significantly contribute to improvements in health as well as promoting social inclusion within society. Government statistics indicate that 25% of all journeys by UK households are made on foot (source DFT LTN1/04) and the results of the 2018 National Travel Survey (NTS) indicate that 80% of trips of less than 1 mile (or 1.6km) are undertaken on foot. It is therefore reasonable to consider that this distance should be regarded as applicable in terms of defining the walking catchment of a new development such as the development proposal.
- 4.2 Examination of the local area indicates a few facilities and services located within the 1.6km walk-in catchment. Table 4.1 summarises some of the local facilities that would be available to the residents of the proposed development site within the acceptable walking distance.

Table 4.1: Local services and facilities accessible within 1.6km from the site.

Facilities	Distance from Site
The Fox Inn	100m
The Dog & Pheasant Pub	415m
Redwood Stone Baked Takeaway	470m
Spar West Mersea Convenience Store	1.20km
Reymead Wood & West Mersea Park	1.30km
Lotus Kitchen Chinese Takeaway	1.40km
Co-op Supermarket	1.45km
West Mersea Beach	1.50km
Mersea Island School	1.60km

- 4.3 The facilities listed in Table 4.1 are located along East Road and the B1025 Kingsland Road. The section of East Road between the site and the B1025 has a footway on at least one side. Footways are provided along both sides of B1025 Kingsland Road. A Zebra crossing is also provided within the vicinity of Co-op Supermarket. Hence occupants of the development could safely access the local facilities on foot.



- 4.4 As described above, the potential would exist for walk trips to the local facilities listed above amongst residents of the development.

Cycling

- 4.5 The former national planning guidance PPG13 paragraph 77 stated that *“Cycling also has potential to substitute for short car trips, particularly those less than 5 kilometres, and to form part of a longer journey by public transport”*. There has been no recent advice that supersedes this and therefore the PPG 13 advice remains the most recent in this respect.
- 4.6 Taking into account the 5km cycle distance, which equates to approximately 20 minutes cycling time, the catchment area of the site by cycle would include the entire island.
- 4.7 Shared cycle / pedestrian footways are provided along few links of the grade separated interchange, which cyclists could utilise. Additionally, the site is located approximately 1km to the east National Cycle Route 13.

Bus

- 4.8 Guidance generally indicates that walking distances to access bus services should lie between a desirable distance of 400m and acceptable distance of 800m. Furthermore, it is generally recognised that the maximum convenient walking distance in order to access urban bus services is around 500m. This walking distance to a bus stop has emerged from theoretical studies and has been supported by research undertaken for the National Travel Survey (NTS).
- 4.9 The Fox Bus Stop on East Road is located 200m from the approximate midpoint of the site. Table 4.2 shows a summary of the bus services operating within the vicinity of the site.



Table 4.2: Bus Services Calling at Stops within the vicinity of the site

Bus Service	Route Summary	Monday–Friday		Weekend	
		Times	Frequency	Times	Frequency
67	West Mersea–Abberton–Colchester	06:08–20:00	30 min	07:21–19:56 (Sat)	30 min
67B	West Mersea–Peldon–Abberton–Colchester	No Service	No Service	08:38–21:04 (Sun)	2 hours
67C	West Mersea–Abberton–Colchester	07:23–08:17	1 Bus	No Service	No Service
68	West Mersea–Peldon–Abberton–Colchester	19:55–23:28	4 buses	19:55–23:28	4 buses

Train

4.10 The proposed development is located around 12 km from Colchester Town Railway Station. This is beyond the generally regarded reasonable upper limit walking threshold of 1km to access train services. However, it could be accessed from the site by the aforementioned bus services which serve Stop C at Colchester Town railway station. The total journey time from the site would be approximately 30 minutes.

4.11 Trains at Colchester Town railway station are operated by Greater Anglia. Table 4.3 provides a summary of train services operating at the railway station.

Table 4.3: Summary of Train Services at Colchester Town Railway Station

Destination	Monday–Friday			
	Operating Times	Average Journey Time	Trains per Hour	Changes
London Liverpool Street	06:19–00:00	1 Hour 20 Min	2 to 4	1
Colchester	06:26–23:07	8 Min	2 or 4	1 or 2



5 DEVELOPMENT TRAFFIC GENERATION

Introduction

- 5.1 In this section the likely level of traffic generated by the proposed development is considered.

Trip Rates

- 5.2 The TRICS database was interrogated in order to establish appropriate trip rates for calculating the likely level of traffic generated by the development proposal. The TRICS good practice guidance of selecting sites of similar geographical regions / locations was adopted.
- 5.3 The '*Houses Privately Owned*' category within the '*Residential*' land use type of the TRICS database was interrogated. The selected geographical regions did not include London, Republic of Ireland and Northern Ireland. Furthermore, to ensure compatibility between the proposed development and the surveys selected from the TRICS database, the range of number of dwellings was set to between 5 and 75 units. The date range for the search was from 1st January 2009 to 19th November 2019. Hence all surveys were undertaken within the last 11 years. The selected locations included '*Edge of Town*'. The search criteria resulted in the identification of 27 surveyed sites within the TRICS database.
- 5.4 The AM and PM peak hour trip rates derived from the search are shown in Table 5.1 below. The AM peak hour adopted for the purposes of this study was 08:00 to 09:00 hours, the PM peak hour from 17:00 to 18:00 hours. The TRICS outputs from the above searches are contained in Appendix D.

Table 5.1: TRICS Trip Rates

Use	AM Peak Hour		PM Peak Hour	
	Arrivals	Departures	Arrivals	Departures
Houses Privately Owned	0.150	0.369	0.339	0.158

- 5.5 Application of the above TRICS trip rates to the proposed number and type of dwellings results in the calculation of the possible level of traffic generated by the development proposal. Those traffic levels are shown in Table 5.2.



Table 5.2: Likely Level of Development Traffic

Use	No. of Units	AM Peak Hour		PM Peak Hour	
		Arrivals	Departures	Arrivals	Departures
Houses Privately Owned	55	8	20	19	9
Total-Two Way Traffic	55	28		28	

5.6 As shown in Table 5.2, the development is likely to generate 28 trips each during the AM and PM peak hours. This equates to one trip every two minutes which would not be detrimental on the existing level of traffic on the local road network.



6 PARKING PROVISION

6.1 Car parking provision plays an important role in the context of sustainability and is considered a vital measure in the process of moving towards sustainable development. The restraint in the supply of car parking can act as a potential tool for influencing travel choice towards non-car modes of travel, particularly for destination developments such as employment, leisure and retail. For residential development sites, minimum car parking standards apply. This helps to ensure that adequate car parking is provided and that residential streets are not restricted by on-street parking causing difficulties for service vehicles to access effectively.

6.2 Table 6.1 shows the minimum number of parking spaces that should be allocated for cars and cycles in accordance with the Essex County Council Parking Standards.

Table 6.1: Essex Parking Standards

Unit Type	Minimum Vehicle Provision	Minimum Cycle Provision	Minimum Power Two Wheeler Provision	Minimum Disabled Provision
1 Bedroom	1 Space per dwelling	1 secure covered space per dwelling. None if garage or secure area is provided within curtilage of dwelling	N/A	N/A if parking is in curtilage of dwelling, Otherwise as Visitor/ unallocated
2+ Bedroom	2 spaces per dwelling			

Source : Essex Parking Standards: Design and Good Practice (September 2009)

6.3 Based on the number of dwellings and the above parking standards, the permissible number of parking spaces that could be provided at the proposed development are shown in Table 6.2.

Table 6.2: Minimum Parking Provision for the Proposed Development.

Class of Use	Parameter	Car	Cycle (Minimum)
2+ Bedroom Dwellings	55 Units	110	55

6.4 In addition to the provision of 2 car parking spaces per dwelling, the car parking standards call for 0.25 spaces per dwelling for visitor's use to be provided in addition to the minimum number of spaces per dwelling, Although it is acceptable for this to be on-street ad hoc provision. The layout plan contained in Appendix B shows that 135 car parking spaces would be provided which is fully in accordance with the Essex parking



standards. For the avoidance of doubt it is confirmed that specific cycle parking facilities would only be provided where a garage / garden or secure area was not included within the curtilage of the dwelling.



7 CONCLUSIONS

- 7.1 Intermodal Transportation Ltd (ITL), an independent consultancy specialising in highway engineering and transportation planning, have been appointed by Johnson Dennehy Planning Partnership to produce a Transport Statement (TS) report to support the planning application for a residential scheme on land to the south of East Road in West Mersea, Essex.
- 7.2 The development proposal would involve the provision of 55 dwellings. The site is 1.6 hectares and is currently undeveloped land. The site is bounded by residential dwellings and The Fox Inn to the north. Residential dwellings and Cross Lane are located to the west. The southern and eastern boundaries of the site are bounded by undeveloped land.
- 7.3 Vehicular access to the site would be achieved via East Road, which runs in an east to west alignment and is subject to a speed limit of 30mph. Appropriate visibility splays would be provided within the public highway and land controlled by the applicant in accordance with MfS guidance. East Road forms a cross road junction with Cross Lane and Dawes Lane to the west of the site. To the east, East Road forms a priority junction with Waldegraves Lane and Chapmans Lane. The B1025 is located to the west of the site and provides access to the A134 and the A12 Colchester Bypass.
- 7.4 It is demonstrated in this report that the site has good access to some local facilities including restaurants, a primary school, a supermarket and frequent bus services providing linkage into Colchester and other urban centres. It is considered that the development site provides the opportunity to encourage the use of modes of transport other than the private motor car for some trips.
- 7.5 Using the TRICS database the likely levels of traffic generated by the proposed development during the typical weekday peak hours was calculated as part of this study. It was calculated that the development would generate 28 trips each during the AM and PM peak hours, which are considered to be non-detrimental to the existing level of traffic on the local road network.
- 7.6 The requirements of the local car parking standards in the context of the development proposal have been examined within this report and it is confirmed that the proposed level of car parking provision accords with those local standards.
- 7.7 It is therefore concluded that the development proposal should be regarded as acceptable from a highways and transportation perspective. Furthermore, it is



considered that in the context of the final bullet point of paragraph 109 (page 32) of the National Planning Policy Framework 2019 (NPPF), which indicates that “*Development should only be prevented or refused on highway grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.*”, the development proposal should be considered as acceptable.

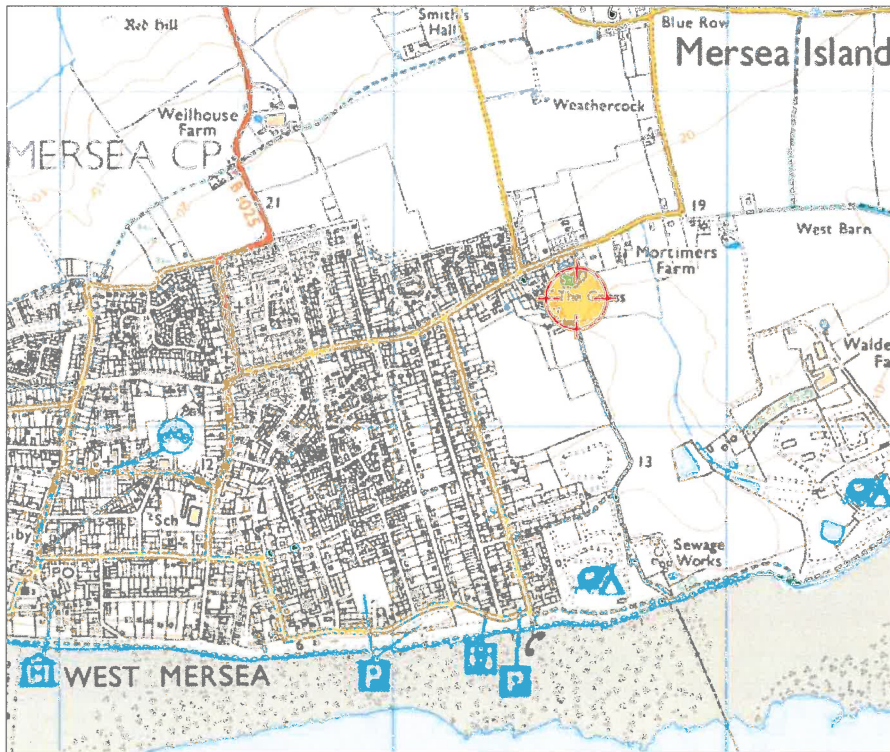


DRAWINGS

WIDER CONTEXT



LOCAL CONTEXT



SITE LOCATION

IT Project:
PROPOSED RESIDENTIAL DEVELOPMENT, EAST ROAD, WEST MERSEA

Drawing Title:
SITE LOCATION IN LOCAL AND WIDER CONTEXT

Rev	Description	Date

Client:
JOHNSON DENNEHY PLANNING PARTNERSHIP

Drawn By:
DS

Approved By:
JB

Drawing No:
IT2211/TS/01

CAD File:
IT2211/TS/01.DWG

Notes:
Dimensions should not be scaled from this drawing. The contents of this drawing are confidential, should you receive this drawing in error please return it to Intermodal Transportation at the address printed.

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Date:
NOV 2020

Scale:
NTS

A4

Sheet 1 of 1



Intermodal TRANSPORTATION

Hunters Court
Debden Road
Saffron Walden
Essex CB11 4AA

Tel: +44 (0)1799 529529
Fax: +44 (0)1799 529530
e: enquires@inter-modal.co.uk

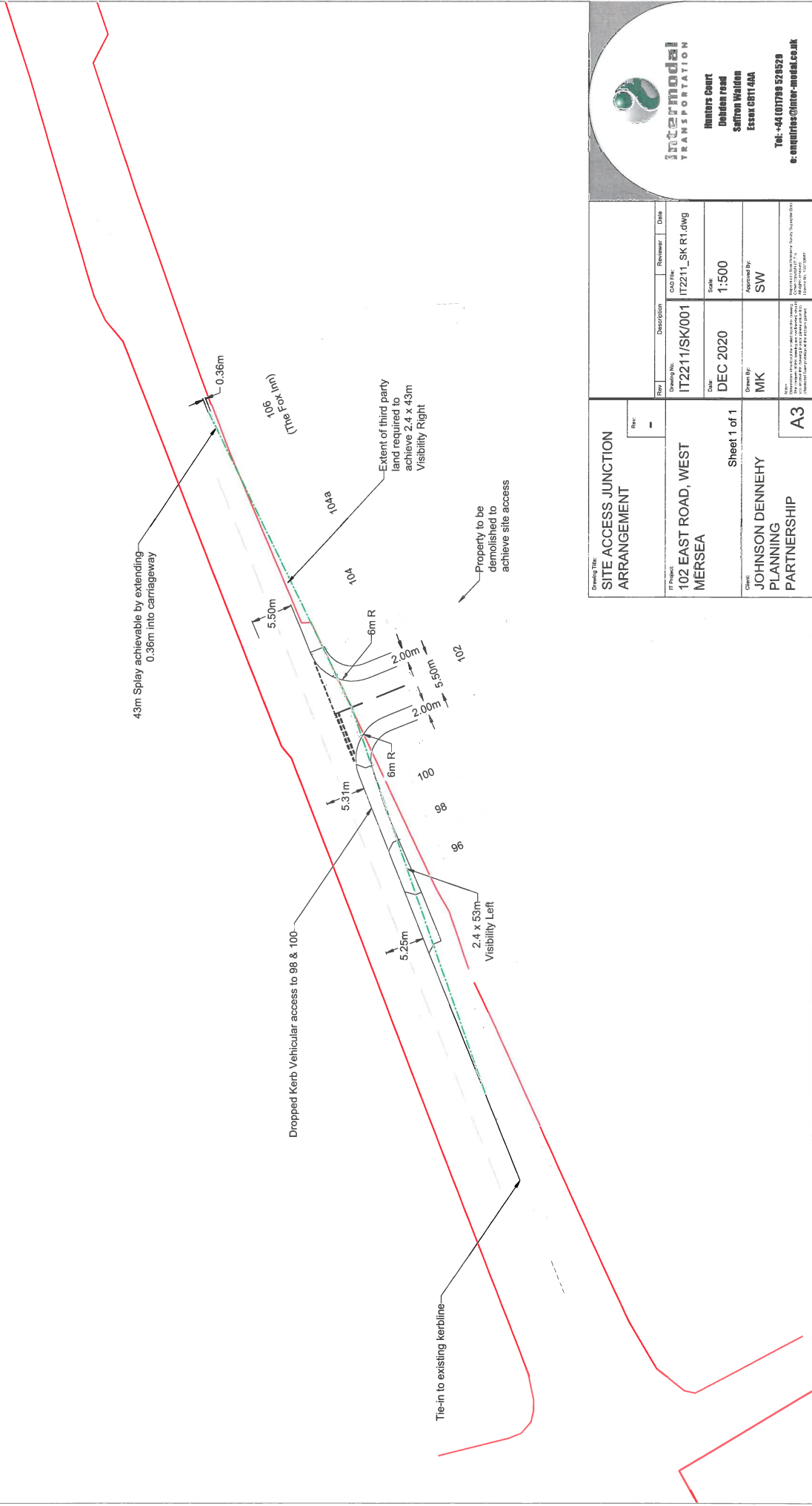


Key

— Extent of Highway Controlled Land interpolated from ECC Ownership Plan

--- Visibility Splay

— Extent of third party land required to achieve Visibility



Revision Table Rev: - Description: IT2211/SK/001 Date: DEC 2020 Drawn By: MIK Scale: 1:500 Approved By: SW		Project Information Drawing No: IT2211_SK R1.dwg Date: DEC 2020 Scale: 1:500 Approved By: SW	
Client JOHNSON DENNEHY PLANNING PARTNERSHIP		Sheet Sheet 1 of 1	
Project Title SITE ACCESS JUNCTION ARRANGEMENT 102 EAST ROAD, WEST MERSEA		Sheet A3	

Intermodal TRANSPORTATION
 Hunters Court
 Debdon Road
 Saffron Walden
 Essex CB11 4QA
 Tel: +44 (0)1798 528529
 e: enquiries@inter-modal.co.uk



Appendix A

Scoping Correspondence

Devesh Shrivastava

From: Martin Mason - Strategic Development Engineer <Martin.Mason@essex.gov.uk>
Sent: 14 January 2021 11:17
To: Devesh.Shrivastava@inter-modal.co.uk
Cc: jdp2@btconnect.com; 'Justin Bass'; 'Steve Williamson'
Subject: RE: Proposed Residential Development, East Road, West Mearsea

Hi Devesh,

Thank you for confirming your client's intention.

I will review your submission and provide you with my comments as soon as possible.

Thanks again.

Martin

Martin Mason
Strategic Development Engineer
Transportation and Smarter Travel

Essex County Council | telephone: 03330 130590 | mobile: 07919 624331 | email: martin.mason@essex.gov.uk



Safer, greener, healthier

From: Devesh Shrivastava <devesh.shrivastava@inter-modal.co.uk>
Sent: 16 December 2020 16:58
To: Martin Mason - Strategic Development Engineer <Martin.Mason@essex.gov.uk>
Cc: jdp2@btconnect.com; 'Justin Bass' <justin.bass@inter-modal.co.uk>; 'Steve Williamson' <steve.williamson@inter-modal.co.uk>
Subject: RE: Proposed Residential Development, East Road, West Mearsea

Hello Martin

Thank you for your reply, the scheme relates to a forthcoming planning application which our client is going to submit.

Regards
Devesh

Devesh Shrivastava
Assistant Transport Planner
on behalf of

Intermodal TRANSPORTATION

Hunters Court
Debden Road
Saffron Walden
Essex CB11 4AA



tel: 01799 529529

fax: 01799 529530

e: devesh.shrivastava@inter-modal.co.uk

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From: Martin Mason - Strategic Development Engineer <Martin.Mason@essex.gov.uk>
Sent: 01 December 2020 17:07
To: Devesh.Shrivastava@inter-modal.co.uk
Cc: jdp2@btconnect.com; 'Justin Bass' <justin.bass@inter-modal.co.uk>; 'Steve Williamson' <steve.williamson@inter-modal.co.uk>
Subject: RE: Proposed Residential Development, East Road, West Mearsea

Hi Devesh,

Thanks for your emails.

Does your submission relate to an existing or forthcoming planning application?

Thanks again.

Martin

Martin Mason
Strategic Development Engineer
Transportation and Smarter Travel

Essex County Council | telephone: 03330 130590 | mobile: 07919 624331 | email: martin.mason@essex.gov.uk



Safer, greener, healthier

From: Devesh Shrivastava <devesh.shrivastava@inter-modal.co.uk>
Sent: 26 November 2020 12:18

To: Martin Mason - Strategic Development Engineer <Martin.Mason@essex.gov.uk>
Cc: jdp2@btconnect.com; 'Justin Bass' <justin.bass@inter-modal.co.uk>; 'Steve Williamson' <steve.williamson@inter-modal.co.uk>
Subject: FW: Proposed Residential Development, East Road, West Mearsea

Hello Martin

Further to my earlier email below, please see attached the pre app advice request form.

Regards
Devesh Shrivastava

From: Devesh Shrivastava <devesh.shrivastava@inter-modal.co.uk>
Sent: 26 November 2020 11:02
To: 'martin.mason@essex.gov.uk' <martin.mason@essex.gov.uk>
Cc: 'Justin Bass' <justin.bass@inter-modal.co.uk>; 'Steve Williamson' <steve.williamson@inter-modal.co.uk>; 'jdp2@btconnect.com' <jdp2@btconnect.com>
Subject: FW: Proposed Residential Development, East Road, West Mearsea

Dear Martin

We write in order to set out the proposed scope of the transport report that we have been commissioned to produce in conjunction with the proposal for the provision of a residential development on land located to the south of East Road, West Mersea. The site is within the administrative council of Colchester Borough Council. For ease of reference we have attached a drawing showing the site location in the local and wider context.

The development proposal consists of the provision of 55 residential units. The vehicular access to the site would be achieved via a new access off East Road and will involve the demolition of the existing house at 102 East Road. The site is approximately 1.6 hectares and is currently undeveloped land.

We understand that the development proposal of 55 dwellings is 5 units in excess of the 50 units threshold, which ECC usually advise that a Transport Assessment should be provided to support the planning application. However, in this case the additional 5 units is likely to equate to around 2 trips during each peak hour. It is our understanding that two residential schemes of 100 dwellings each are proposed at Dawes Lane and Brierley Paddocks that would generate traffic at the nearby junctions along East Road. We have reviewed the Transport Assessment reports for both of these developments and the capacity analyses show that all junctions nearby would operate with ample spare capacity.

Given the very modest exceedance of the 50 unit threshold, and the results analyses undertaken for the two nearby larger development proposals, we propose that a Transport Statement would represent the appropriate form of submission for this proposal.

On this basis, we set out below the issues which we propose be included within the TS report: -

- A description of the site location and the local road network;
- A description of the proposed development;
- Consideration of the accessibility of the site by non-car transport modes, i.e. walking, cycling and public transport;
- Calculation of the likely level of traffic generated by the proposed development, with reference to the TRICS database;
- Confirmation of the proposed vehicular access arrangements for the development, including undertaking Auto Track swept path analysis; and
- Consideration of the appropriate levels of car and cycle parking at the development proposal in the context of the relevant local standards.

We trust that the above and attached is sufficient for your immediate needs and we would be grateful for your earliest confirmation that you are in agreement with our proposed study scope. In the meantime, however, please do not hesitate to contact us should you have any queries or wish to discuss this matter further.

Regards

Devesh Shrivastava
Assistant Transport Planner
on behalf of

Intermodal
TRANSPORTATION

Hunters Court
Debden Road
Saffron Walden
Essex CB11 4AA



tel: 01799 529529

fax: 01799 529530

e: devesh.shrivastava@inter-modal.co.uk

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Appendix B

Proposed Site Layout Plan



Appendix C

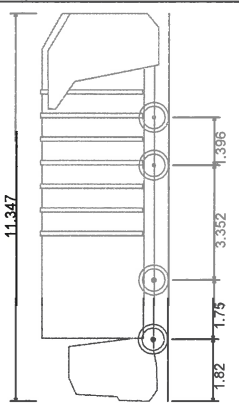
AutoTrack Swept Paths



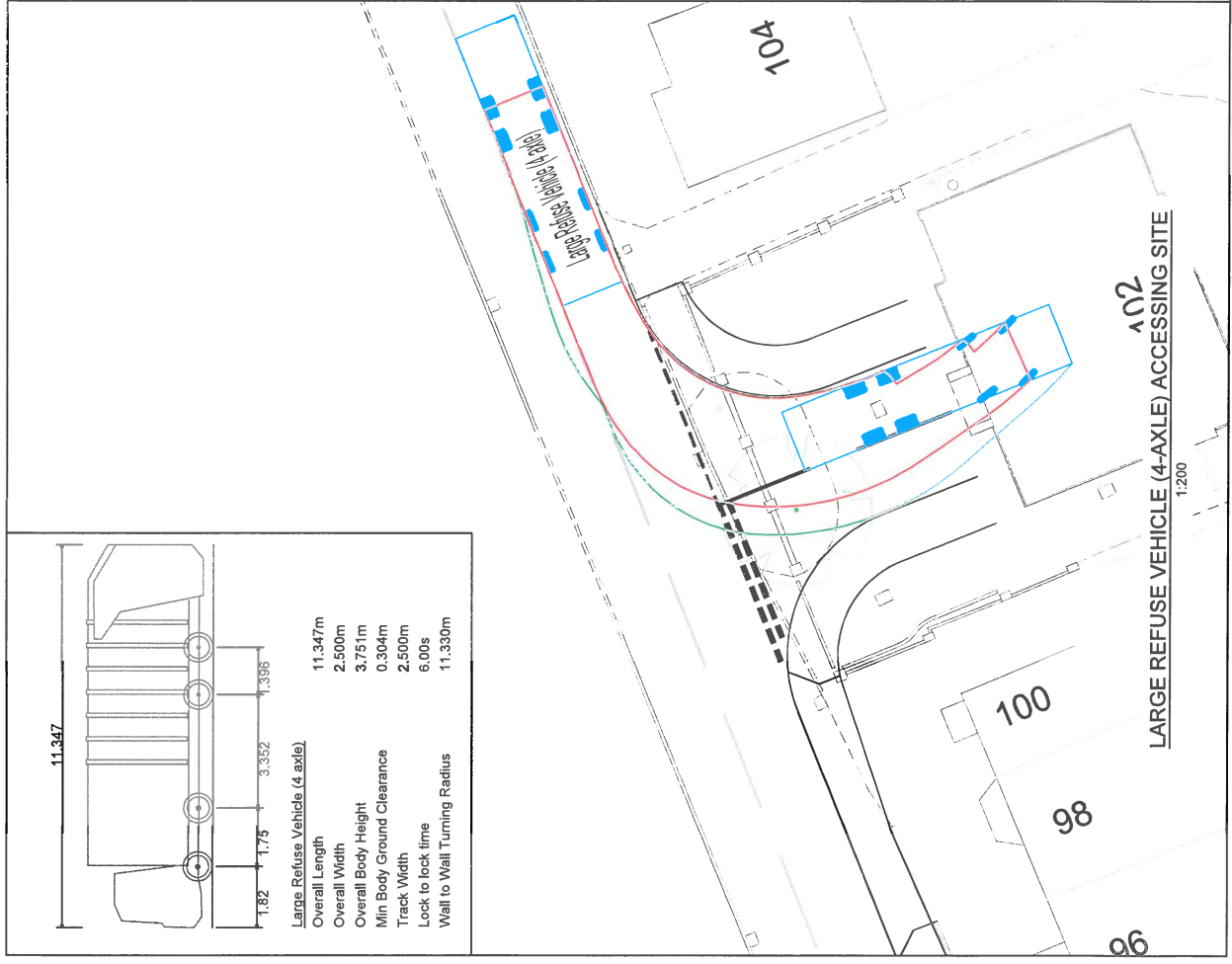
ATR001



LARGE REFUSE VEHICLE (4-AXLE) EGRESSING SITE
1:200



- Large Refuse Vehicle (4 axle) 11.347m
- Overall Length 2.500m
- Overall Width 3.751m
- Min Body Ground Clearance 0.304m
- Track Width 2.500m
- Lock to lock time 6.00s
- Wall to Wall Turning Radius 11.330m



LARGE REFUSE VEHICLE (4-AXLE) ACCESSING SITE
1:200



Appendix D

TRICS Outputs

Calculation Reference: AUDIT-731001-201118-1108

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

TOTAL VEHICLESSelected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	1 days
	HC HAMPSHIRE	2 days
	SC SURREY	1 days
03	SOUTH WEST	
	DC DORSET	1 days
	SM SOMERSET	1 days
04	EAST ANGLIA	
	NF NORFOLK	4 days
	SF SUFFOLK	1 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	3 days
	ST STAFFORDSHIRE	1 days
	WK WARWICKSHIRE	2 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	3 days
08	NORTH WEST	
	CH CHESHIRE	2 days
	GM GREATER MANCHESTER	1 days
	LC LANCASHIRE	1 days
09	NORTH	
	DH DURHAM	1 days
10	WALES	
	VG VALE OF GLAMORGAN	1 days
11	SCOTLAND	
	HI HIGHLAND	1 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
 Actual Range: 9 to 71 (units:)
 Range Selected by User: 5 to 75 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/09 to 19/11/19

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

Selected survey days:

Monday	3 days
Tuesday	4 days
Wednesday	8 days
Thursday	7 days
Friday	5 days

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

Selected survey types:

Manual count	26 days
Directional ATC Count	1 days

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

Selected Locations:

Edge of Town

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	24
No Sub Category	3

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

Secondary Filtering selection:

Use Class:

C3	27 days
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This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	5 days
5,001 to 10,000	7 days
10,001 to 15,000	7 days
15,001 to 20,000	4 days
20,001 to 25,000	2 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:

5,001 to 25,000	3 days
25,001 to 50,000	4 days
50,001 to 75,000	3 days
75,001 to 100,000	7 days
100,001 to 125,000	1 days
125,001 to 250,000	5 days
250,001 to 500,000	3 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	4 days
1.1 to 1.5	23 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	6 days
No	21 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	27 days
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This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters (Cont.)

18	SC-03-A-04 HIGH ROAD BYFLEET	DETACHED & TERRACED		SURREY
	Edge of Town Residential Zone Total No of Dwellings: 71 Survey date: THURSDAY 23/01/14			Survey Type: MANUAL
19	SF-03-A-05 VALE LANE BURY ST EDMUNDS	DETACHED HOUSES		SUFFOLK
	Edge of Town Residential Zone Total No of Dwellings: 18 Survey date: WEDNESDAY 09/09/15			Survey Type: MANUAL
20	SH-03-A-03 SOMERBY DRIVE SHREWSBURY BICTON HEATH	DETACHED		SHROPSHIRE
	Edge of Town No Sub Category Total No of Dwellings: 10 Survey date: FRIDAY 26/06/09			Survey Type: MANUAL
21	SH-03-A-05 SANDCROFT TELFORD SUTTON HILL	SEMI-DETACHED/TERRACED		SHROPSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 54 Survey date: THURSDAY 24/10/13			Survey Type: MANUAL
22	SH-03-A-06 ELLESMERE ROAD SHREWSBURY	BUNGALOWS		SHROPSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 16 Survey date: THURSDAY 22/05/14			Survey Type: MANUAL
23	SM-03-A-01 WEMBDON ROAD BRIDGWATER NORTHFIELD	DETACHED & SEMI		SOMERSET
	Edge of Town Residential Zone Total No of Dwellings: 33 Survey date: THURSDAY 24/09/15			Survey Type: MANUAL
24	ST-03-A-08 SILKMORE CRESCENT STAFFORD MEADOWCROFT PARK	DETACHED HOUSES		STAFFORDSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 26 Survey date: WEDNESDAY 22/11/17			Survey Type: MANUAL
25	VG-03-A-01 ARTHUR STREET BARRY	SEMI-DETACHED & TERRACED		VALE OF GLAMORGAN
	Edge of Town Residential Zone Total No of Dwellings: 12 Survey date: MONDAY 08/05/17			Survey Type: MANUAL
26	WK-03-A-02 NARBERTH WAY COVENTRY POTTERS GREEN	BUNGALOWS		WARWICKSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 17 Survey date: THURSDAY 17/10/13			Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

27	WK-03-A-04 DALEHOUSE LANE KENILWORTH	DETACHED HOUSES	WARWICKSHIRE
	Edge of Town Residential Zone		
	Total No of Dwellings:	49	
	Survey date: FRIDAY	27/09/19	Survey Type: MANUAL

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

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

TOTAL 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	27	33	0.082	27	33	0.298	27	33	0.380
08:00 - 09:00	27	33	0.150	27	33	0.369	27	33	0.519
09:00 - 10:00	27	33	0.149	27	33	0.210	27	33	0.359
10:00 - 11:00	27	33	0.150	27	33	0.174	27	33	0.324
11:00 - 12:00	27	33	0.166	27	33	0.190	27	33	0.356
12:00 - 13:00	27	33	0.169	27	33	0.178	27	33	0.347
13:00 - 14:00	27	33	0.179	27	33	0.163	27	33	0.342
14:00 - 15:00	27	33	0.169	27	33	0.192	27	33	0.361
15:00 - 16:00	27	33	0.291	27	33	0.206	27	33	0.497
16:00 - 17:00	27	33	0.299	27	33	0.159	27	33	0.458
17:00 - 18:00	27	33	0.339	27	33	0.158	27	33	0.497
18:00 - 19:00	27	33	0.248	27	33	0.128	27	33	0.376
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.391			2.425			4.816

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:	9 - 71 (units:)
Survey date range:	01/01/09 - 19/11/19
Number of weekdays (Monday-Friday):	27
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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.