The Lake Lothing (Lowestoft) Third Crossing Order 201[*]

Lake Lothing THIRD CROSSING

Document 7.2: Transport Assessment

Appendix D
Traffic Data Collection

Author: Suffolk County Council

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.

The Lake Lothing (Lowestoft) Third Crossing Order 201[*]

Suffolk County Council

TRAFFIC DATA COLLECTION REPORT

003
JUNE 2018

CONFIDENTIAL

TYPE OF DOCUMENT (VERSION) CONFIDENTIAL

PROJECT NO. 70016133
OUR REF. NO. 003

DATE: JUNE 2018

WSP
WSP House
70 Chancery Lane
London
WC2A 1AF
Phone: +44 20 7314 5000
Fax: +44 20 7314 5111
WSP.com

QUALITY CONTROL

Issue/revision	First issue	Revision 1	Revision 2	Revision 3
Remarks	Final	Final	Final DCO submission	
Date	December 2017	December 2017	June 2018	
Prepared by	Daniel Tarry	Daniel Tarry	Daniel Tarry	
Signature				
Checked by	Michael Johns	Michael Johns	Michael Johns	
Signature				
Authorised by	Matthew Chilvers	Matthew Chilvers	Matthew Chilvers	
Signature				
Project number	70016133	70016133	70016133	
Report number	001	002	003	
File reference	171102 D2 SCTM Data Collection Report.docx	171218 D2 SCTM Data Collection Report.docx	170626 D2 SCTM Data Collection Report.docx	

CONTENTS

TABLES

FIGURES

APPENDICES

1 INTRODUCTION

1.1 BACKGROUND

1.1.1. WSP has been commissioned by Suffolk County Council (SCC) to upgrade the existing transport modelling tools available to SCC and develop an integrated county-wide multi-modal model known as the Suffolk County Transport Model (SCTM). WSP is working in partnership with Kier under the Suffolk County Council Professional Services Framework.

1.1.2. The SCTM comprises a highway assignment model built in SATURN, as well as a public transport and demand model based in VISUM.

1.1.3. The SCTM represents a substantial improvement to previous transport modelling tools within Suffolk and allows for a greater range of behavioural responses to be tested. The SCTM provides a robust evidence base for a range of possible applications. The SCTM highway assignment model incorporates the model networks used within the Ipswich Transport Model (ITM) and Lowestoft Traffic Model (LTM) which were previously used to inform the Outline Business Cases (OBCs) for The Upper Orwell Crossing and Lake Lothing Third Crossing.

1.1.4. The SCTM provides a multi-purpose transport modelling tool for SCC to test a range of potential transport schemes and policies. These include:

- Highway scheme appraisal
- Major public transport scheme appraisal
- Inputs for transport business cases and funding applications
- Inputs for environmental appraisals
- Local plan / core strategy assessment
- Smarter choices assessment
- Development impact assessment.

1.1.5. The SCTM has been developed to an extent that it is able to serve as a high-level strategic assessment tool for all such applications, with the specific highway and public transport network coding and available data to be reviewed prior to testing.

1.1.6. The SCTM has a base year of 2016 based on an average Monday to Thursday for neutral months. Traffic surveys specifically commissioned for the model build of the SCTM were carried out by Intelligent Data on behalf of WSP in April 2016.

1.1.7. A series of additional surveys have been commissioned by WSP since, primarily in 2017. These surveys have supported modelling undertaken for The Upper Orwell Crossing and Lake Lothing Third Crossing DCO applications. WSP and Jacobs have also been working in partnership to produce an OBC for the Suffolk Energy Gateway (SEGWay) scheme; data collection was undertaken in 2017 to support this. The data from these surveys has been used alongside Highways England TRADS data, and SCC permanent ATC counts, to calibrate and validate the SCTM and to inform any subsequent traffic forecasting and economic assessment work.

1.2 PURPOSE OF THE HIGHWAY TRAFFIC DATA COLLECTION REPORT

1.2.1. The aim of this highway traffic data collection report is to outline the survey data which has been collected and collated for the calibration and validation of the SCTM highway assignment model. This report will detail the checks and cleaning which has been undertaken to the data to ensure it is fit for purpose and can be carried forward into the model building process (which will be discussed in the D3 SCTM Local Model Validation Report for the highway assignment model).

2 DATA REQUIRED

2.1 INTRODUCTION

2.1.1. Traffic data is an essential requirement in the highway assignment model build process, informing the following:

- network development
- matrix construction
- calibration and validation

2.2 EXISTING DATA

2.2.1. Where possible model development has maximised the use of existing data sources and sources are summarised within the following sections.

NETWORK DEVELOPMENT DATA

2.2.2. A wide variety of sources of data have been utilised to build the network, including:

- Google StreetView – used to assist in the determination of junction configurations and road conditions to assign Speed Flow Curves
- OpenStreetMap Speed Limit Data – used to assist in the determination of cruise speed
- Suffolk County Council Traffic Signal Data – used to assign signal timings

MATRIX BUILD DATA

2.2.3. The main data source utilised for the SCTM base year matrices is Mobile Network Data. This data was collected and processed by Telefonica covering April and May 2015. WSP have carried out checks of this data and verification of the MND. 2011 Census Journey to Work Data, 2014 National Travel Survey (NTS) data and NTEM version 7.2 will be used to verify the MND and create synthetic matrices. The MND verification and matrix methodology will be reported in the D3 SCTM Local Model Validation Report.

2015 DATA COLLECTED FOR OBC MODELS

2.2.4. Extensive traffic data collection was carried out for the Ipswich Upper Orwell Crossing (formerly Ipswich Wet Dock) and Lowestoft Lake Lothing Third Crossing OBCs in July 2015. This data collection included Automatic Number Plate Recognition (ANPR) surveys, Automatic Traffic Counts (ATCs), and Manual Classified Turning Counts (MCTCs). This data has been incorporated into the SCTM. Table 1 shows the breakdown of surveys conducted in July 2015 in Ipswich and Lowestoft.

2.2.5. Manual classified turning counts and manual classified counts underpinning the ANPR surveys are single day surveys only. These counts will be predominantly used for model validation purposes in the SCTM rather than calibration.

Table 1 - Ipswich and Lowestoft July 2015 surveys

Survey Type	Ipswich	Lowestoft
Automatic Number Plate Recognition (ANPR) – Links	27	14
Automatic Number Plate Recognition (ANPR) – Car Parks	16	13
Automatic Traffic Counter (ATC)	39	33
Manual Classified Turning Count (MCTC)	50	9

2.2.6. In Ipswich, 27 of the ANPR counts were carried out on links forming a cordon around the Wet Dock Crossing study area. The remaining 16 ANPR counts were carried out at car parks within the study area. The ANPR cordon surveys were accompanied by a manual classified count which have been primarily used for validation purposes in the SCTM.

2.2.7. In addition to the Manual Classified Turning Counts (MCTCs) commissioned for the Lake Lothing Third Crossing OBC, 17 MCTCs within Lowestoft commissioned by AECOM, carried out between Tuesday 14 April 2015 and Thursday 16 April 2015 are available. However, these counts are for morning and evening periods only.

2.2.8. Automatic Number Plate Recognition (ANPR) was undertaken over 29 sites for the LTM and was previously used for matrix construction and model calibration. These include 14 link counts and 15 car park counts. The ANPR is not used for matrix construction purposes in the SCTM as the basis for the matrices is MND. The majority of ANPR survey locations were also covered by a nearby ATC and will not be used for model validation. The exception to this is on the eastern Bascule Bridge and A12 Yarmouth Road for which no ATCs are available. Validation of these locations will be carried out using the MCTC survey which accompanied the ANPR survey.

2.2.9. The data collection for Calibration and validation of the ITM is detailed in the Local Model Validation Report (LMVR) revision 2 for the Wet Dock Crossing OBC (January 2016). The LTM data collection report (LTM report 2, October 2015) provides detail of the surveys specifically commissioned for the Lake Lothing Third Crossing OBC in July 2015. The LTM LMVR provides details of the validation and calibration utilising the data collected (LTM report 3, December 2015)

SUFFOLK COUNTY COUNCIL PERMANENT ATC SITES

2.2.10. Suffolk County Council (SCC) has a number of permanent ATC sites around the county, primarily in the large towns which has been utilised. The data obtained is from December 2015 to June 2016. Whilst there are a couple of sites from December 2015 that have been used the majority is from the period April 2016 – June 2016. In common with the other sources the December 2015 counts have been adjusted based on growth factors – as set out in Section 3.2.

HIGHWAYS ENGLAND TRADS

2.2.11. Highways England TRADS data has been utilised, discussed in Section 4 of this report and Appendix C. This data has been downloaded for April 2016 in the majority of instances, however in some instances for which 2016 data was unavailable, March 2015 data was obtained as an alternative. Since the analysis carried out in this report, the HATRIS website from which TRADS could previously be accessed has been taken offline. There is now a new means of accessing Highways England traffic data - http://webtris.highwaysengland.co.uk/.

TRAFFICMASTER GPS DATA

2.2.12. Trafficmaster GPS (journey time) data was obtained from SCC covering the period between September 2015 to August 2016. This data will be used for journey time validation of the SCTM highway assignment model.

2.2.13. This processed dataset provides an average journey time per link for the majority of links within the study area based on the detailed Integrated Transport Network (ITN) road network which follows actual road alignments.

2.2.14. Travel time was calculated as average travel time across the selected vehicle types listed below:

- Cars
- LGVs (up to 3500 kg)
- HGVs (up to 7500 kg)
- HGVs (over 7500 kg)
- Buses (including minibuses)
- Taxis
- Motorised Caravans
- Other vehicles
- Unknown

2.2.15. Following guidance in WebTAG unit M1.2, Data Sources and Surveys (Jan 2014) the Trafficmaster data was filtered to only include data from months which are considered neutral.

2.2.16. Average travel times for the AM peak, inter peak and PM peak hours have been derived for an average weekday, considered to be represented by Monday to Thursday, with school holidays and bank holidays filtered out from the neutral months specified above.

2.3 THE REQUIREMENT FOR NEW DATA

2.3.1. The principal requirements for traffic data are to enable a robust traffic model to be developed which can be used for economic and environmental appraisals of schemes and developments across the county. As already outlined, data is available for Lowestoft and Ipswich, the collection of further traffic data ensures an appropriate level of data coverage to enable the build of a county wide model.

2.3.2. Extensive data collection has been carried out since 2016 for the purposes of validating and calibrating the SCTM and for other schemes.

- 2016 Suffolk County Transport Model data collection was carried out in April 2016. Some surveys were repeated due to data errors and roadworks. All details are set out in Section 5.
- 2016 Lowestoft Local Validation Data Collection set out in Section 6.
- 2017 Suffolk Energy Gateway (SEGWay) Local Validation Data Collection set out in Section 7.
- 2017 Ipswich Local Validation Data Collection set out in Section 8.

3 MODELLING APPROACH

3.1 INTRODUCTION

3.1.1. Given the model is for the entire county it is appropriate to use a strategic area modelling package. The highway model is developed using a SATURN traffic assignment model using matrices developed primarily from MND received from Telefonica and refined in this project.

3.1.2. The data will provide for both model and matrix calibration and validation stages and the types of data required comprise link traffic flows, turning counts at junctions and journey time surveys along selected routes in the network.

3.1.3. The base year for the modelling is 2016. This is based on average weekday (Monday to Thursday) during a neutral month. Not all the data used is from 2016 so growth factors have been applied, as outlined in Section 3.2.

3.1.4. As outlined in the MSR, the following time periods will be modelled, consistent with advice presented in section 5 of TAG unit M3.1 (January 2014):

- AM peak hour (08:00 – 09:00) (AM)
- Average interpeak hour (10:00 – 16:00) (IP)
- PM peak hour (17:00 – 18:00) (PM)

3.1.5. Peak hour analysis has been conducted to demonstrate this is appropriate and this is outlined in Section 3.3.

3.2 GROWTH FACTORS 2015/2017 TO 2016

3.2.1. As outlined in Section 2 data from 2015 and 2017 has been used within the model. It has therefore been necessary to adjust this data in line with 2016 values. TEMPro / NTM factors have been used to factor the car trips, whilst NRTF factors have been used to convert LGV and HGV. These factors are based on districts. For cars the conversion factors are time period specific, whilst for LGVs and HGVs the conversion factor for all peaks is the same.

3.2.2. Table 2 shows the growth factors used to convert 2015 and 2017 data into 2016 values for cars, whilst Table 3 shows the growth factors used to convert 2015 and 2017 data into 2016 values for LGVs and HGVs.

Table 2 - TEMPro Growth Factors for Car

Year to Convert From	**TEMPRO District**	**District / Year**	**AM**	**IP**	**PM**
2015	EAST	East of England	0.9942	0.99865	0.9955
2015	Babergh	Babergh District	0.9853	0.9996	0.9884
2015	Ipswich	Ipswich District (B)	0.9849	0.9962	0.9869
2015	Mid Suffolk	Mid Suffolk District	0.9859	1.0003	0.9891
2015	Suffolk Coastal	Suffolk Coastal District	0.9871	1.0012	0.9905
2015	Waveney	Waveney District	0.9861	0.9991	0.9890
2017	Babergh	Babergh District	0.9928	0.9890	0.9931
2017	Ipswich	Ipswich District (B)	0.9869	0.9847	0.9877
2017	Mid Suffolk	Mid Suffolk District	0.9935	0.9899	0.9939
2017	Suffolk Coastal	Suffolk Coastal District	0.9923	0.9885	0.9923
2017	Waveney	Waveney District	0.9905	0.9878	0.9911

Table 3 - NRTF Growth Factors for LGVs and HGVs

Year to Convert From	All Peaks LGV	All Peaks HGV
2015	1.0286	1.0127
2017	0.9714	0.9873

3.3 PEAK HOUR ANALYSIS

3.3.1. Analysis was conducted to identify the peak hours at each of the sites, and to confirm that the time periods set out in the D1 SCTM MSR (February 2016) are appropriate. Analysis of peak hours is required in section 5 of WebTAG unit M3.1 (January 2014). This analysis considers the peak hours across Monday to Thursday.

3.3.2. Table 4 shows which hour within the AM peak period (07:00-10:00) at each ATC site shows the highest average flow. Counts of the peak hour by site for cars and LGVs shows there is a clear peak between 08:00 and 09:00. For HGVs, there is a more even split between 08:00 to 09:00, and 09:00 to 10:00 in terms of the peak hour.

Table 4 - Count of Sites with AM Peak Hour at Given Time Period

TIME PERIOD STARTING	CAR	LGV	HGV
07:00	28	67	16
08:00	189	141	83
09:00	8	17	126
Total	225	225	225

3.3.3. Table 5 compares the average traffic flow by hour in the inter peak period (10:00-16:00), counting which hour across the ATC sites shows the highest flow. The analysis shows there is a clear peak between 15:00 and 16:00 for both Cars and LGVs. For HGVs there is not a definitive peak hour across the inter peak period.

Table 5 - Count of Sites with Inter Peak Hour at Given Time Period

TIME PERIOD STARTING	CAR	LGV	HGV
10:00	2	5	53
11:00	1	5	48
12:00	5	1	15
13:00	9	4	18
14:00	6	10	43
15:00	202	200	48
Total	225	225	225

3.3.4. Further analysis was carried out by determining the standard deviation based on the average flow for each inter peak hour. Upper and lower limits were calculated based on one and two standard deviations, with this value added and subtracted respectively from the overall inter peak period average hourly flow. It was found that across all 225 ATC sites, the average hourly flow between 10:00 and 15:00 (therefore excluding the 15:00 to 16:00) was within one standard deviations of the mean for the inter peak period in all cases in both directions. This analysis shows that despite the 15:00 to 16:00 hour clearly being the peak for Cars and LGVs, it is not significantly greater than the other inter peak hours. Therefore it is appropriate to use an average inter peak hour for the SCTM highway model.

3.3.5. Table 6 shows which hour within the PM peak period (16:00-19:00) has the highest flow at each ATC site. This comparison shows for cars the peak hour is between 17:00 and 18:00. For LGVs and HGVs, 16:00 to 17:00 is the peak hour.

Table 6 - Count of Sites with PM Peak Hour at Given Time Period

TIME PERIOD STARTING	CAR	LGV	HGV
16:00	23	143	218
17:00	200	81	7
18:00	2	1	0
Total	225	225	225

3.3.6. Figure 1 show the variation in the total car traffic across all 225 ATC sites by hour for an average weekday (Monday to Thursday). This further highlights the appropriateness of modelling 08:00-09:00 as the AM peak hour and 17:00-18:00 as the PM peak hour.

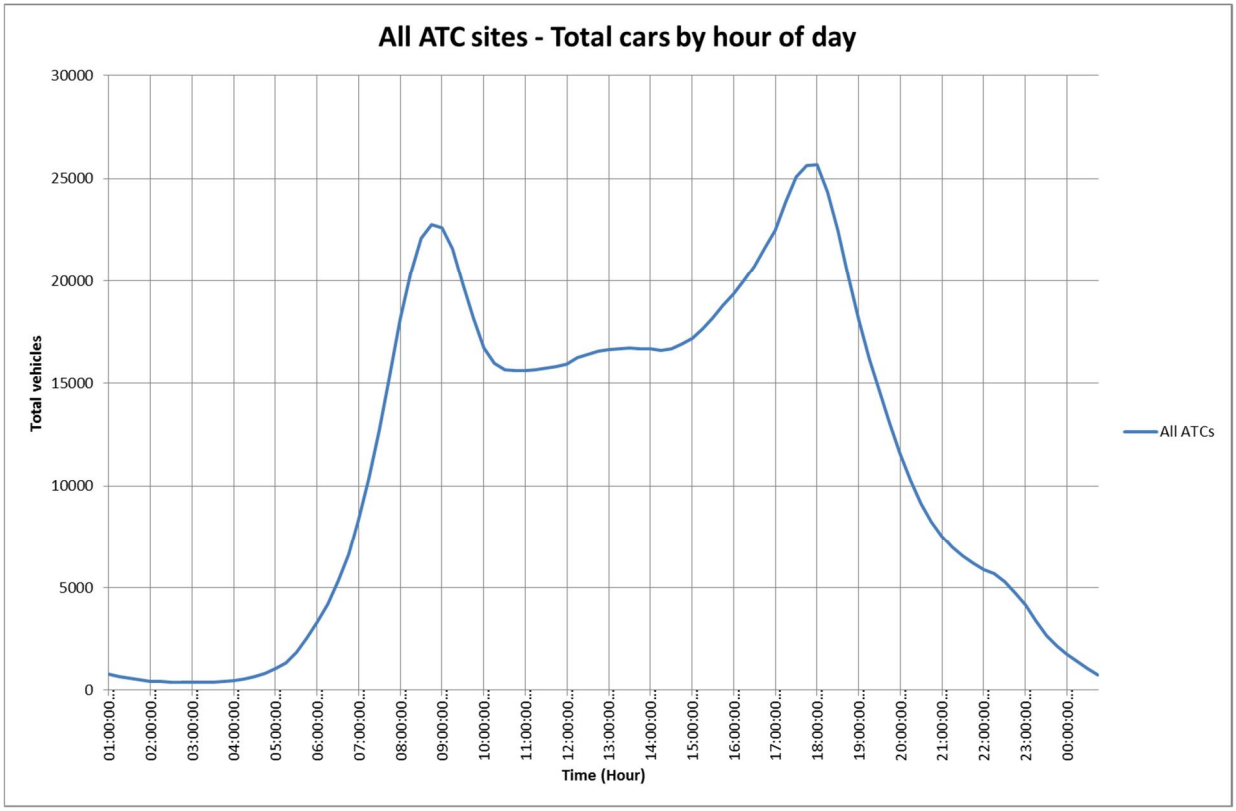


Figure 1 – Car traffic across all ATC sites by time of day

3.3.7. The peak hour analysis shows the peak hours outlined in the D1 SCTM MSR (February 2016) and the modelling approach in section 2.4 of this report are appropriate. Compared to cars, LGVs are shown to have a different peak hour in the PM, whilst HGVs are shown to have a different peak hour in both the AM and PM. However, given cars form the majority of the traffic, the average peak hour traffic for cars will be used as the basis for the modelled time periods in the SCTM highway model.

3.3.8. Appendix A2 contains the total links flow for each ATC count site by peak hour.

3.4 SMV ID

3.4.1. All data used has been compiled into a single spreadsheet and given an ID number. This is the Saturn Model Validation (SMV) ID number, and is referenced throughout this report.

4 EXISTING SOURCES OF DATA

4.1 INTRODUCTION

4.1.1. A wide range of existing sources have been compiled and used for the model calibration and validation.

4.1.2. The processing of the following data sources is outlined in this section:

- 2015 Data Collected for the Outline Business Case (OBC) Models:
  - Ipswich
  - Lowestoft
- Suffolk County Council (SCC) Permanent ATC sites
- Highways England (HE) TRADS sites
- TrafficMaster GPS data

4.2 2015 DATA COLLECTED FOR OBC MODELS

THE UPPER ORWELL CROSSINGS, IPSWICH

4.2.1. The data used to support the Outline Business Case for The Upper Orwell Crossings, Ipswich (formerly Wet Dock Crossing) largely came from existing data used within the ITAM modelling suite developed by AECOM (formerly Faber Maunsell | AECOM).

4.2.2. However, new data was collected in 2015 by WSP to support for the development of the Southern Ipswich Paramics Model (SIPM). This included new ATC, MCC, and ANPR data. This was used to provide a present year (2015) validation and has been used within the Suffolk County Transport Model (SCTM).

4.2.3. Full details of the use of this data within the Outline Business Case (OBC) Model can be found within the Report 70013811-02 Wet Dock Crossing Local Modal Validation Report.

ATC DATA

4.2.4. Automatic Traffic Count (ATC) surveys were undertaken for a two week period between 10 July and 24 July 2015. Figure 2 shows the locations where ATC counts were undertaken.

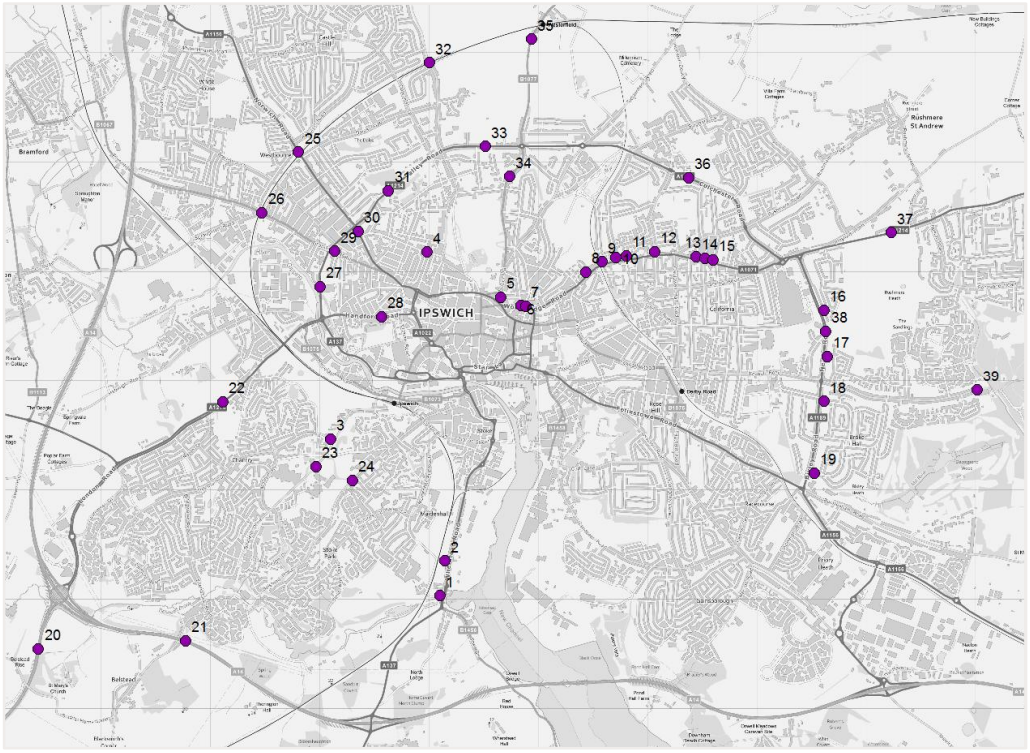


Figure 2 - ATC Survey Locations for Upper Orwell Crossing Data Collection 2015

4.2.5. The locations of these count locations are summarised below:

Table 7 - ATC Survey Locations for Upper Orwell Crossing Data Collection 2015

SMV ID(s)	Ref	Site Location
622 - 623	1	Corporation Avenue
624 - 625	2	Unnamed Road
626 - 627	3	Hawthorn Drive
628 - 629	4	Anglesea Road
630	5	Cobbold Street
631 - 632	6	Christchurch Street
633 - 634	7	Blanche Street
635 - 636	8	Bramley Hill
637 - 638	9	Belvedere Road
639 - 640	10	Brunswick Road
641 - 642	11	Khartoum Road
643 - 644	12	Sidegate Lane
645 - 646	13	Phoenix Road
647 - 648	14	Schrieber Road
649 - 650	15	Reading Road
651 - 652	16	Adelaide Road
653 - 654	17	Gleneagles Drive
655 - 656	18	Penshurst Road
657 - 658	19	Ashdown Way
659 - 660	21	Grove Hill
661 - 662	22	Crane Hill
663 - 664	23	Birkfield Drive
665 - 666	24	Belstead Road
667 - 668	25	Norwich Road
669 - 670	26	Bramford Road
671 - 672	27	A1214 Yarmouth Road
673 - 674	28	A1071 Handford Road
675 - 676	29	B1067 Bramford Road
677 - 678	30	A1156 Norwich Road
679 - 680	31	Valley Road
681 - 682	32	Henley Road
683 - 684	33	Valley Road
685 - 686	34	Westerfield Road

SMV ID(s)	Ref	Site Location
687 - 688	35	B1077 Westerfield Road
689 - 690	36	Colchester Road
691 - 692	37	A1214 Woodbridge Road
693 - 694	38	A1189 Heath Road
695 - 696	39	Foxhall Road

MCC DATA

4.2.6. A total of 50 turning count surveys were undertaken for Ipswich Wet Dock Crossing study; these surveys were undertaken using video cameras on 14 July 2015. The classified turning counts were collected at the junctions shown on Figure 3 below.

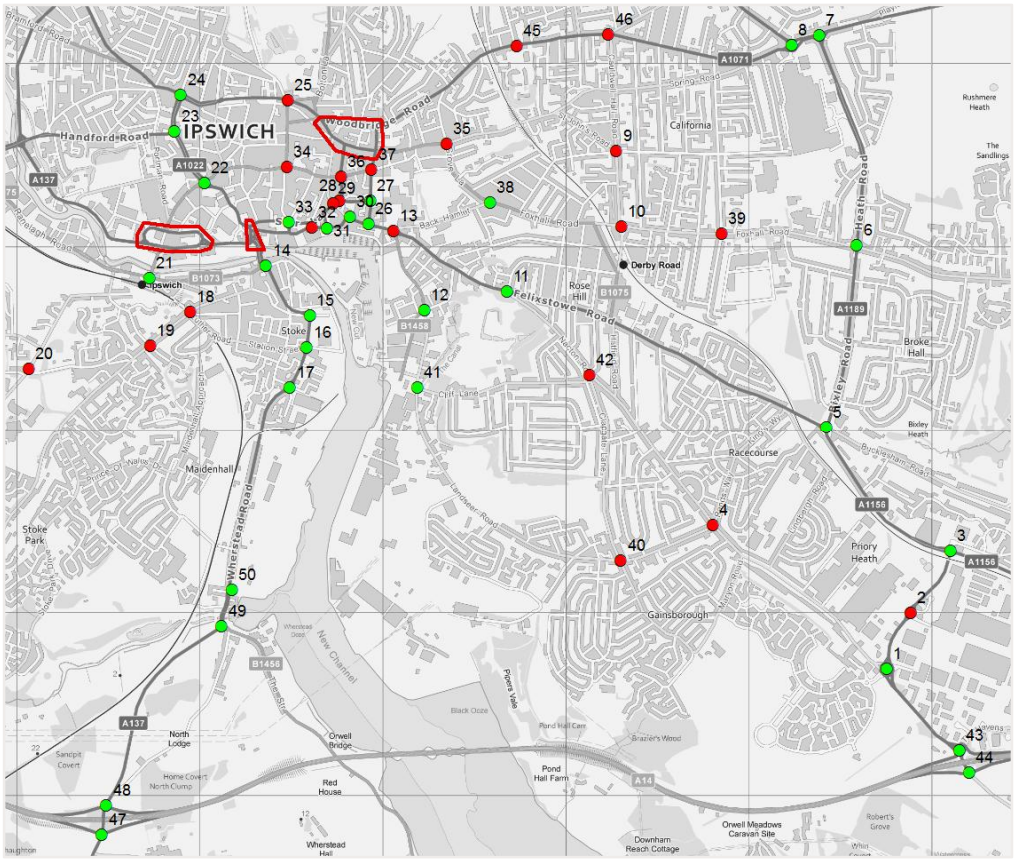


Figure 3 - MCC Survey Locations for Upper Orwell Crossing Data Collection 2015

4.2.7. The locations of these junctions are summarised below:

Table 8 - MCC Survey Locations for Upper Orwell Crossing Data Collection 2015

SMV ID(s)	Ref	Site Location
697 - 701; 890 - 894	1	Ransomes Way - Nacton Road
702 - 706; 895 - 899	2	Ransomes Way N - Ransomes Way S
707 - 710; 900 - 903	3	Felixstowe Road - Ransomes Way

SMV ID(s)	Ref	Site Location
711 - 714; 904 - 907	4	Rands Way - Nacton Road
715 - 718; 908 - 911	5	Bixley Road - Felixstowe Road
719 - 722; 912 - 915	6	Heath Road - Bixley Road
723 - 725; 916 - 918	7	Woodbridge Road - Heath Road
726 - 729; 919 - 922	8	Woodbridge Road - Colchester Road
730 - 734; 923 - 927	9	Cauldwell Hall Road - St John's Road
735 - 738; 928 - 931	10	Cauldwell Hall Road - Foxhall Road
739 - 742; 932 - 935	11	Felixstowe Road - Bishops Hill
743 - 746; 936 - 939	12	Duke Street - Cliff Road
747 - 750; 940 - 943	13	Back Hamlet - Fore Hamlet
751 - 754; 944 - 947	14	Bridge Street - Vernon Street
755 - 758; 948 - 951	15	Hawes Street - Vernon Street
759 - 762; 952 - 955	16	Hawes Street - Station Street
763 - 767; 956 - 960	17	Hawes Street - Wherstead Road
768 - 770; 961 - 963	18	Belstead Road - Luther Road
771 - 774; 964 - 967	19	Belstead Road - Ancaster Road
775 - 778; 968 - 971	20	Birkfield Drive - Stone Lodge Lane
779 - 782; 972 - 975	21	Princes Street - Burrell Road
783 - 786; 976 - 979	22	Princes Street - Civic Drive
787 - 790; 980 - 983	23	Civic Drive - Handford Road
791 - 794; 984 - 987	24	Berner's Street - St Matthews Street
795 - 798; 988 - 991	25	Fonnereau Road - Crown Street
799 - 802; 992 - 995	26	Grimwade Street - Fore Street
803 - 805; 996 - 998	27	Grimwade Street - Star Lane
806 - 808; 999 - 1001	28	Waterworks Street - Star Lane
809 - 812; 1002 - 1005	29	Star Lane - Fore Street
813 - 815; 1006 - 1008	31	Slade Street - Key Street
816 - 818; 1009 - 1011	32	Lower Orwell Street - Key Street
819 - 822; 1012 - 1015	33	Foundation Street - Star Lane
823 - 826; 1016 - 1019	34	Upper Brook Street - Dogs Head Street
827 - 830; 1020 - 1023	35	Warwick Road - St Helen's Street
831 - 834; 1024 - 1027	36	Bond Street - Eagle Street
835 - 838; 1028 - 1031	37	Grimwalde Street - Rope Walk
839 - 841; 1032 - 1034	38	Foxhall Road - Grove Lane

SMV ID(s)	Ref	Site Location
842 - 845; 1035 - 1038	39	Britannia Road - Foxhall Road
846 - 849; 1039 - 1042	40	Clapgate Lane - Landseer Road
850 - 853; 1043 - 1046	41	Holywells Road - Landseer Road
854 - 857; 1047 - 1050	42	Levington Road - Nacton Road
858 - 862; 1051 - 1055	43	A14 - Nacton Road
863 - 866; 1056 - 1059	44	A14 - Nacton Road
867 - 870; 1060 - 1063	45	Brunswick Road - Albion Hill
871 - 874; 1064 - 1067	46	Rushmere Road - Woodbridge Road
875 - 878; 1068 - 1071	47	A137 - A14
879 - 882; 1072 - 1075	48	A137 - A14
883 - 885; 1076 - 1078	49	Wherstead Road - A137
886 - 889; 1079 - 1082	50	Wherstead Road - Bostock Road
1083 - 1092	SMV IDs not used	

4.2.8. Additionally, turning counts were undertaken at the three main one-way gyratory systems in the town centre using ANPR cameras:

- The Novotel roundabouts (Star Lane/ College Street/ Greyfriars Road/ Bridge Street/ Grafton Way);
- The Commercial Road/ Grafton Way gyratory around the fire station and sorting office (Commercial Road/ Princes Street/ New Cardinal Street/ Grafton Way/ West End Road/ Russell Road); and
- St Helen's Gyratory (Grimwade Street/ Bond Street/ Upper Orwell Street/ Old Foundry Road/ St Margaret's Street/ Christchurch Street/ Blanche Street/ Orchard Street/ Woodbridge Road)

Table 9 - Gyratory Reference

SMV ID(s)	Ref	Site Location
1093 - 1109	G1	Gyr01
1110 - 1122	G2	Gyr02
1123 - 1143	G3	Gyr03
1144 - 1149	SMV IDs not used	

4.2.9. The turning count data was recorded in 15 minute intervals between 07:00 and 19:00 and was classified using the following vehicle classes:

- Cars;
- Light Goods Vehicles (LGV) – vans up to 3.5T;
- Other Goods Vehicles (OGV1) – vans > 3.5T, rigid trucks with up to three axles;
- Other Goods Vehicles (OGV2) – rigid trucks with more than three axles, articulated vehicles; and
- Public Service Vehicles (PSV) – buses and coaches.

LAKE LOTHING THIRD CROSSING

ATC DATA

4.2.10. Automatic Traffic Counts (ATCs) were carried out at a total of 33 locations which are shown in Figure 4 and described in Table 10.

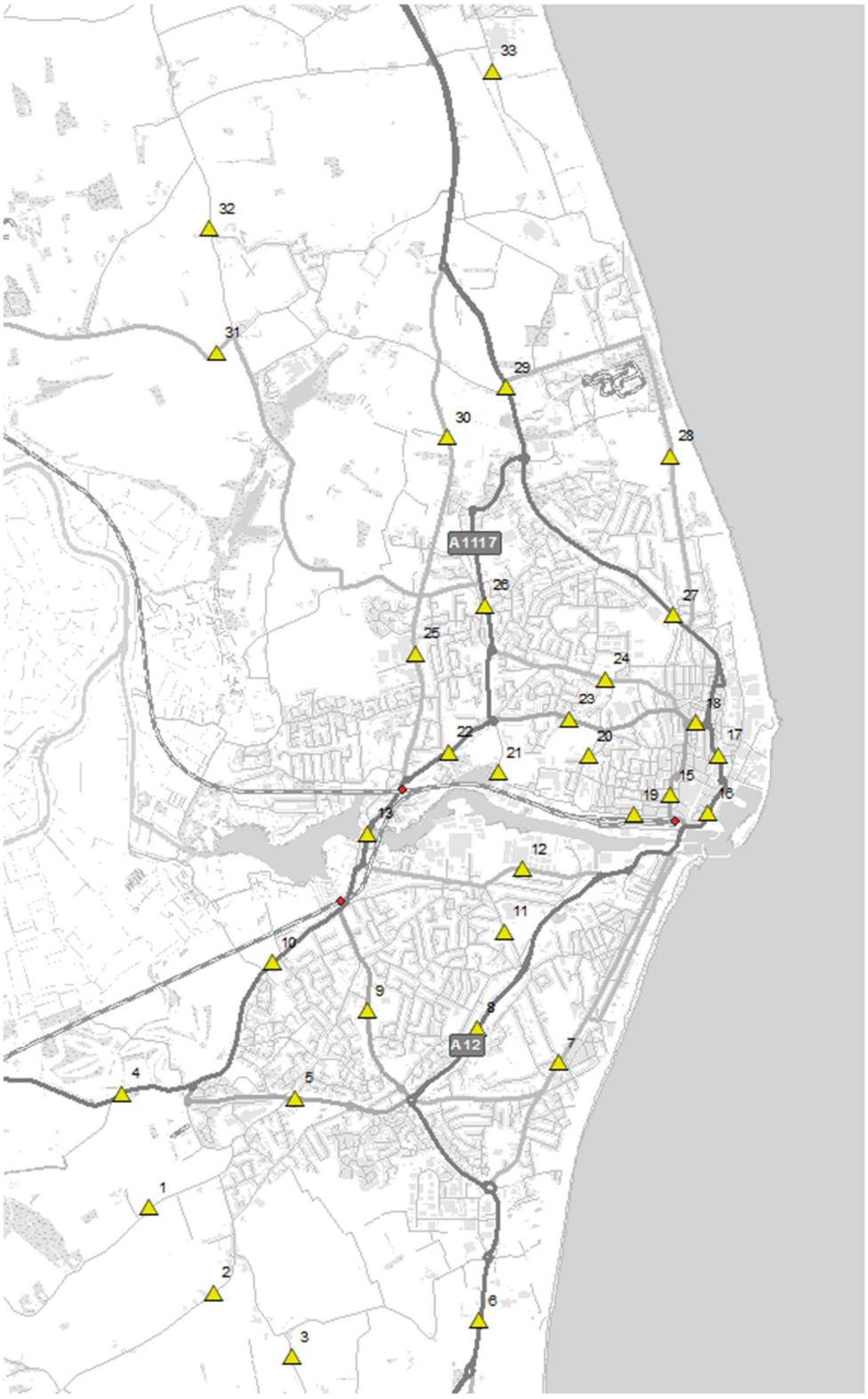


Figure 4 - ATC Survey Locations for Lake Lothing Data Collection 2015

Table 10 - ATC Survey Locations for Lake Lothing Data Collection 2015

SMV ID(s)	Ref	Site Location
548 - 549	1	Mutfordwood Lane
550 - 551	2	Rushmere Road
552 - 553	3	Gisleham Road
554 - 555	4	A146 Beccles Road
556 - 557	5	A1145 Castleton Avenue
558 - 559	6	A12 London Road
560 - 561	7	London Road South
562 - 563	8	A12 Tom Crisp Way
564 - 565	9	A1117 Elm Tree Road
566 - 567	10	A146 Beccles Road
568 - 569	11	Kirkley Run
570 - 571	12	A146 Waveney Drive
572 - 573	13	A1117 Saltwater Way
574 - 575	15	Katwijk Way
576 - 577	16	A12 Battery Green Road
578 - 579	17	A12 Old Nelson Street
580 - 581	18	St Peter's Street
582 - 583	19	Denmark Road
584 - 585	20	Rotterdam Road
586 - 587	21	Peto Way
588 - 589	22	A1117 Normanston Drive
590 - 591	23	A1144 Normanston Drive
592 - 593	24	Oulton Road
594 - 595	25	B1375 Gorleston Road
596 - 597	26	A1117 Millennium Way
598 - 599	27	A12 Yarmouth Road
600 - 601	28	B1385 Corton Road
602 - 603	29	A12 Yarmouth Road
604 - 605	30	B1375 Parkhill
606 - 607	31	B1074 Bluderston Road
608 - 609	32	Fixton Road
610 - 611	33	Coast Road

4.2.11. ATC were laid for a minimum of two weeks between Monday 29 June 2015 and Monday 27 July 2015.

4.2.12. Vehicles passing over the ATC were classified into the following:

- Pedal cycle
- Motorcycle
- Car
- LGV
- 2 Axled Rigid
- 3 Axled Rigid
- 4 Axled Rigid
- 3 Axled Artic
- 4 Axled Arctic
- 5+ Axled Arctic
- Bus

4.2.13. WebTAG unit M1-2 'Data Sources and Surveys' states Monday to Thursdays can be considered neutral. Therefore data from these weekdays was used to calculate the average vehicular flow for the respective peak periods.

4.2.14. Site 14 was intended to be located on the A12 Pier Terrace near the Bascule Bridge. However, Intelligent Data advised they could not safely lay down an ATC at this location. Road works took place at this location during the ATC data collection period which compounded the issue of laying an ATC at this location. The road works were not in place at this location on Tuesday 14th July 2015 when the ANPR and MCC surveys took place.

4.2.15. A road closure was due to take place on the Coast Road which would have affected ATC 33. However, the ATC at these locations shows data was continuously collected at this location during the survey period indicating the road works did not go ahead.

4.2.16. The majority of the ATC locations are shown to provide at least eight Monday to Thursday observations indicating two weeks of count data. One exception is ATC 4 on the A146 Beccles Road. This location only provides one relevant observation for Monday 27th July 2015. The lack of data at this site will be taken into consideration during the base year model validation.

ANPR DATA

4.2.17. Table 1 highlights 27 ANPR count locations were available within Lowestoft as part of the 2015 data collection. The majority of these surveys were not used within the SCTM as they were single day surveys for which there was a nearby two-week ATC which could be used instead. A key reason for the 2015 ANPR data collection was to provide the matrix demand used to build the matrices for the OBC modelling. The SCTM uses Mobile Network Data provided by Telefonica as the basis for the matrix traffic demand, therefore the 2015 Lowestoft ANPR data was generally not required. The 2015 ANPR count locations that have been included in the SCTM are discussed in Table 11.

Table 11 - ANPR Survey Locations for Lake Lothing Data Collection 2015

SMV ID(s)	Ref	Site Location	Reason for inclusion
612 - 613	3	A12 YarmouthRd	High speed road; no ATC could be safely laid
614 - 615	5	A12 Pier Terrace	No ATC data available
616 - 617	6	Saltwater Way	Key link; useful to have range of traffic observations
618 - 619	15	North Quay Retail Park	Provides traffic to/from key retail location
620 - 621	29	Asda Car Park	Provides traffic to/from key retail location

MCC DATA

4.2.18. Manual Classified Counts (MCCs) were carried out at nine key junctions within the study area. Figure 5 shows the locations of the MCC whilst Table 12 provides a description of each of the MCC locations.

Figure 5 - MCC Survey Locations for Lake Lothing Data Collection 2015

Table 12 - MCC Survey Locations for Lake Lothing Data Collection 2015

SMV ID(s)	*Ref*	*Site Location*
1434 - 1443	1	London Road/Arbor Lane/A12/Tower Road
1444 - 1455	2	Tom Crisp Way/Stradbroke Road/Elm Tree Road
1456 - 1463	3	Somerleyton Road/Oulton Street/Hall Lane/Gorleston Road
1464 - 1469	4	Yarmouth Road/Gorleston Road
1470 - 1477	5	Yarmouth Road/Leisure Way/Foxburrow Hill/Bentley Drive
1478 - 1483	6	Yarmouth Road/Corton Road
1484 - 1491	7	Millennium Way/Oulton Road/Peto Way
1492 - 1499	8	Horn Hill/Maconochie Way/A12/Waveney Drive
1500 - 1507; 1757 - 1758	9	A12/Corton Long Lane/A12/Lowestoft Relief Road
1508 - 1614	SMV IDs not used	

4.2.19.

4.2.20.

4.2.21.

4.2.22.

4.2.23.

4.2.24.

4.2.25.

4.2.26.

4.2.27. MCC were carried out between 07:00 and 19:00 on Tuesday 14 July 2015.

4.2.28. Vehicles were recorded using temporary mounted camera equipment, with vehicles classified into the following categories:

- Car
- LGV
- OGV 1
- OGV 2
- Buses
- Motorcycles
- Pedal cycles

4.3 SUFFOLK COUNTY COUNCIL (SCC) PERMANENT ATC SITES

4.3.1. ATC data was provided by SCC from permanent ATC sites across the county. Data was summarised for 2016 as this is the current base year for the SCTM. Data from these count locations is volumetric only. The relative split of cars, LGVs and HGVs for these counts was derived from the 2016 SCTM ATC data at a sector level, with the sector the SCC ATC is contained within identified and the appropriate vehicle split applied.

4.3.2. Figure 6 shows the locations of these count sites, whilst Appendix A provides descriptions of the locations.

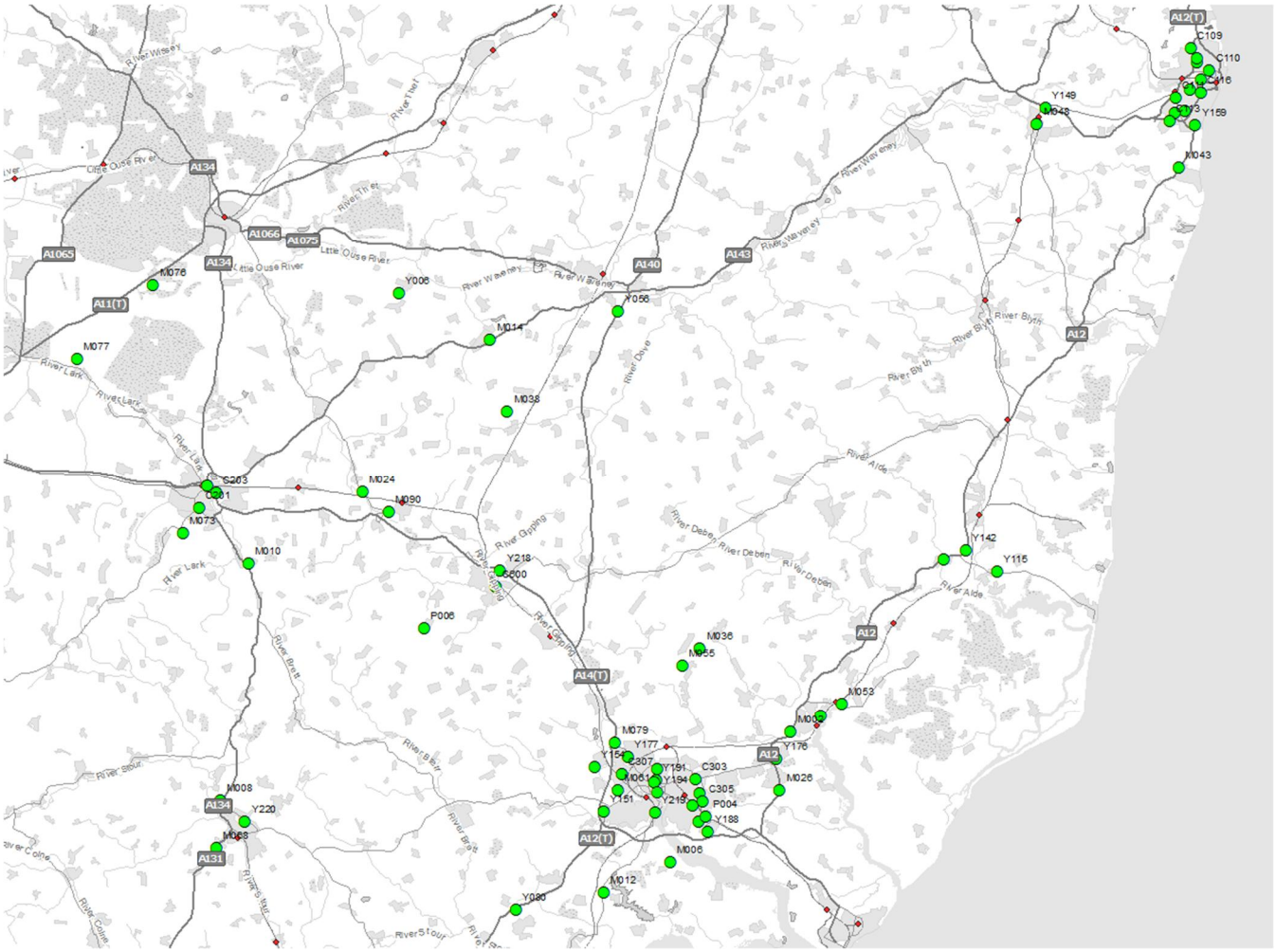


Figure 6 - Suffolk County Council Permanent ATC Survey Locations

4.4 TRADS DATA

4.4.1. TRADS data has been obtained from Highways England's online database via data.gov.uk (http://tris.highwaysengland.co.uk/detail/trafficflowdata) and also from the TRADS database within the HATRIS website (https://trads.hatris.co.uk/) where there were gaps in available data from the former website.

4.4.2. A total of 100 counts have been downloaded from the TRADS database which includes traffic flow data for permanent count sites located on Highways England's strategic road network (SRN) in and adjacent to the county of Suffolk. This includes the following roads which are the Highways England has responsibility for:

- A14 – east of Newmarket to Felixstowe, via Ipswich
- A11 – Newmarket to Thetford
- A12 – Colchester to Ipswich; Lowestoft to Great Yarmouth
- A47 – west of Great Yarmouth

4.4.3. The traffic flow data was processed for April 2016 as this represents a neutral month and ensured it overlapped with the commissioned surveys carried out by Intelligent Data for the SCTM. Data has been processed for the AM peak hour, inter-peak period and PM peak hour between Monday and Thursday.

4.4.4. For the site listed below, May 2016 data was obtained as no April 2016 was available:

- TMU Site 6299/2 on link A14 westbound within J44

4.4.5. For the sites listed below, April 2015 data was obtained as no 2016 data was available:

- TMU Site 6308/1 on link A11 southbound between A14 and A1304
- TMU Site 6308/2 on A14 westbound within J36

4.4.6. For the sites listed below data was not available for 2016 with data instead obtained for March 2015 from the TRADS database within the HATRIS website for the following site locations:

- MIDAS site at A14/1254J priority 1 on link 106026801 (between J37 & J38)
- TMU Site 9942/1 on link A14 J49 eastbound exit
- TMU Site 9942/2 on link A14 eastbound within J49
- TMU Site 6296/1 on link A14 J51 eastbound exit
- TMU Site 6279/1 on link A14 J55 eastbound exit
- TMU Site 6279/2 on link A14 eastbound within J55
- TMU Site 6280/1 on link A14 J55 westbound exit
- TMU Site 6281/2 on link A14 eastbound within J56
- TMU Site 6283/2 on link A14 eastbound within J57
- TMU Site 6277/3 on A12 southbound within the B1070 junction

4.4.7. During analysis of the TRADS data, it was found data loss occurred across all TRADS counts between 10:30 and 13:00 on 20 April 2016. Data loss was also found at multiple sites between 10:00 and 10:30 on 11 April 2016. It was ensured this missing data did not affect the average traffic flows calculated at the selected sites

4.4.8. Average traffic flows were calculated for each peak hour, with 5% difference from the average outlined in WebTAG unit M1.2 (January 2014) initially applied. This was relaxed to 10% as checks across each site showed instances where observations removed had very similar values to observations which were retained. The 10% criterion was found to be sufficient to ensure outliers were removed. A record of the number of observations which were available by each TRADS count location can be found in Appendix B2.

4.4.9. Figure 7 shows the locations of the selected TRADS counts, whilst Appendix B1 provides the site descriptions. A summary of the traffic flow at each TRADS site by peak hour is detailed in Appendix B3.

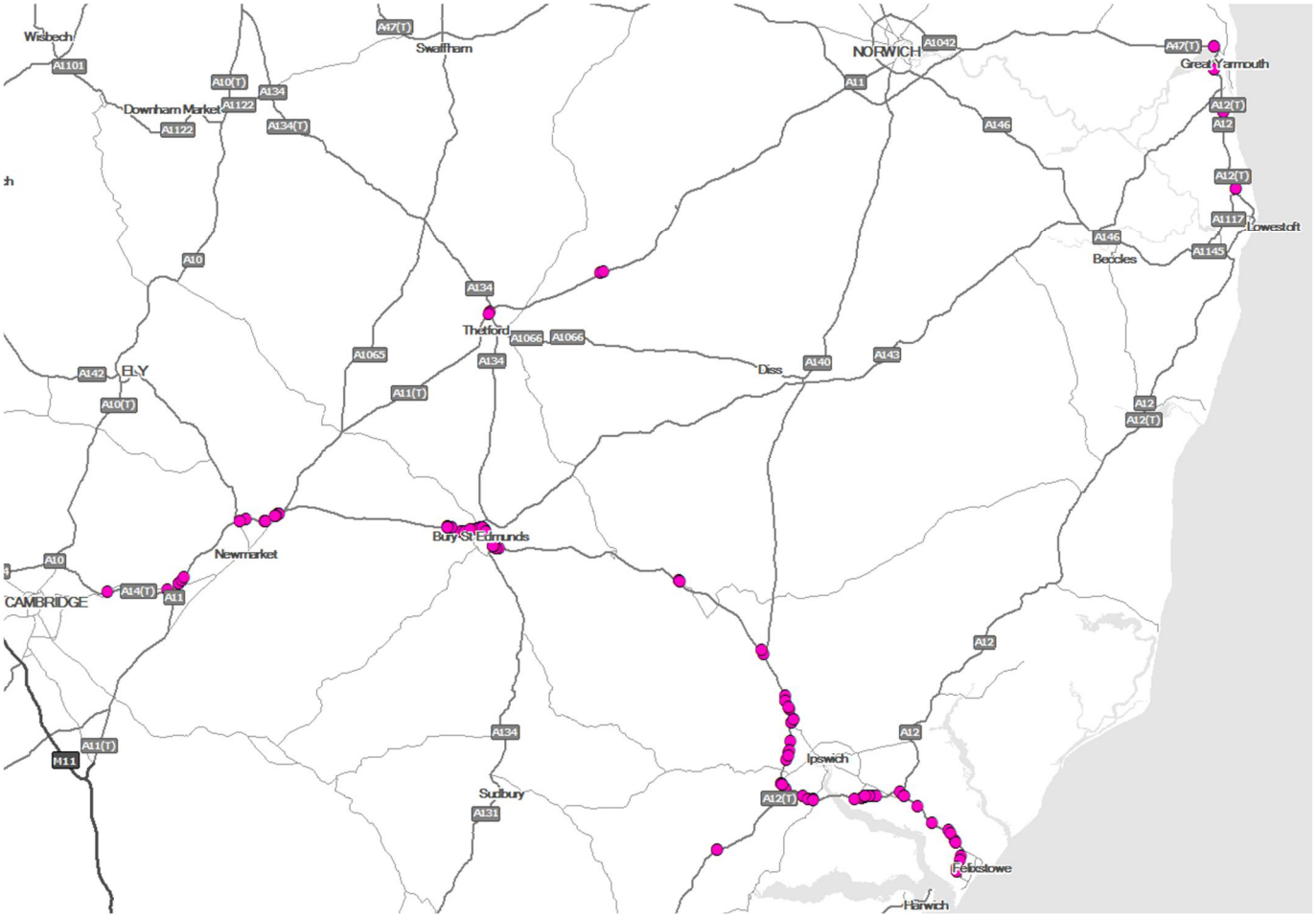


Figure 7 - TRADS Locations

SITES WITH A LOW NUMBER OF OBSERVATIONS

4.4.10. Analysis of the number of observations at each TRADS site has been undertaken. Table 13 highlights the locations for which there a low number of hourly observations. A small sample of observations was considered to be sites which had less than eight observations in the AM or PM peak i.e. less than two weeks of data from which to base a Monday to Thursday average traffic flow.

Table 13 - TRADS counts with low number of observations

SMV ID(s)	Road Name	Site	Description	Month / Year	Dir	AM Obs	IP Obs	PM Obs
474	A14	30013438	TMU Site 6300/1 on link A14 J44 eastbound exit	Apr-16	EB	8	45	6
475	A14	30013437	TMU Site 6300/2 on link A14 eastbound within J44	Apr-16	EB	8	45	6
484	A14	30032601	MIDAS site at A14/1218L priority 1 on link 106027601	Apr-16	WB	11	59	6
515	A14	30013399	TMU Site 6283/1 on link A14 J57 eastbound exit	Apr-16	EB	11	68	6
516	A14	30013398	TMU Site 6283/2 on link A14 eastbound within J57	Mar-15	EB	4	24	4
540	A12	30013380	TMU Site 6337/1 on A12 northbound between A1243 and A47	Apr-16	NB	4	23	4
541	A12	30013381	TMU Site 6337/2 on A12 southbound between A47 and A1243	Apr-16	SB	4	23	4
542	A12	30013379	TMU Site 6338/1 on link A12 southbound between B1370 and B1375	Apr-16	SB	7	39	7
543	A12	30013378	TMU Site 6338/2 on link A12 northbound between B1375 and B1370	Apr-16	NB	7	39	7

4.4.11. Further analysis of the observations at the locations shown in Table 13 shows in all cases the sample of observations are within 5% of the average flow at each respective site. Therefore despite the lower sample of observations, the available data does not show marked variation. The exception is the following site on the A14:

- TMU Site 6283/1 on link A14 J57 eastbound exit

4.4.12. Applying the 5% difference from the average flow at the above site highlights an observation in the PM peak and two in the inter peak which are below this range. These observations were removed leaving five available observations in the PM peak and 66 hourly observations in the inter peak.

4.4.13. It is considered the TRADS sites with the lower number of observations are appropriate to use for validation of the SCTM as the available data at these locations is shown to be consistent.

VEHICLE CLASSIFICATION AND PROPORTION

4.4.14. In terms of vehicle classification for the TRADS data, the following was assumed:

- Cars: vehicles smaller 5.2m

- LGVs: vehicles between 5.2m and 6.6m
- HGVs: vehicles larger than 6.6m

4.4.15. WebTAG unit M1.2 states the split between light vehicles and heavy vehicles is sufficiently accurate based on a vehicle length of 6.6m.

4.4.16. The average vehicle splits by peak hour across the TRADS data is shown in Table 14.

Table 14 - TRADS count vehicle splits

Peak Hour	CAR	LGV	HGV
AM	79%	7%	13%
IP	72%	7%	21%
PM	85%	5%	10%

4.5 TRAFFICMASTER DATA

4.5.1. Trafficmaster GPS data was obtained from Suffolk County Council covering a period between September 2015 and August 2016. The data was filtered to only include data from the following neutral months:

- September 2015
- October 2015
- November 2015
- March 2016
- April 2016
- May 2016
- June 2016

4.5.2. The data was processed to provide an average weekday (Monday to Thursday) travel time by direction for each peak hour being modelled within the SCTM. Suffolk school holidays and bank holidays were excluded from the data used to derive the average travel times.

4.5.3. Travel time data was processed for a total of 78 routes across Suffolk in both directions. Following the guidance in WebTAG unit M1.2 it has been ensured the journey time routes are between 3km and 15km. Appendix C1 provides a list of the journey time routes that have been analysed, consistent with the proposed journey time routes in the D1 SCTM MSR (February 2016). Route 55 covering the A134 in Sudbury is southbound only.

4.5.4. Figure 8 shows the journey time routes for which Trafficmaster GPS data has been processed and analysed.

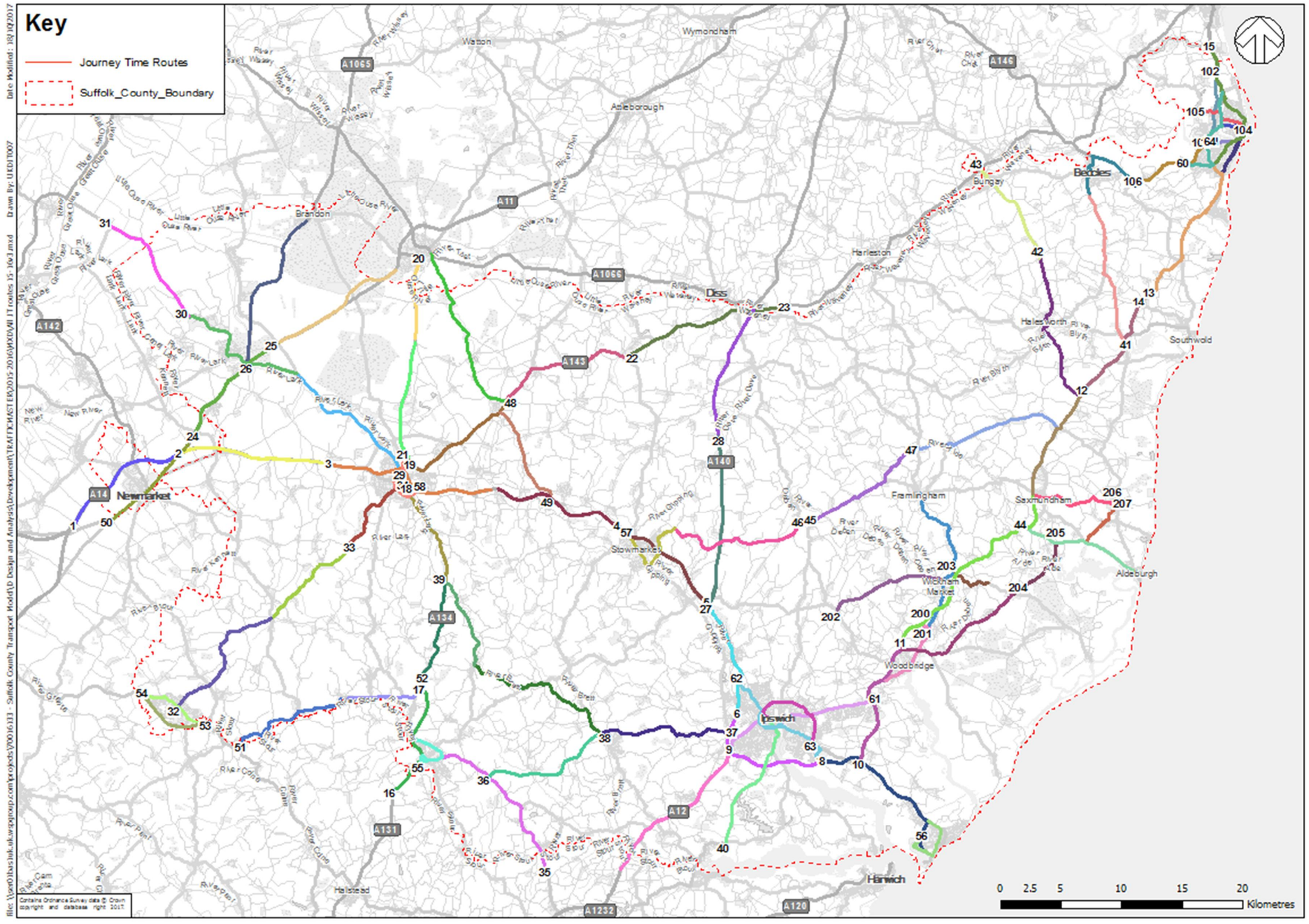


Figure 8 - TrafficMaster Routes

4.5.5. Appendix C2 contains graphs showing the average travel time and speed for each route by peak hour. Appendix C3 provide this data in tabular form.

4.5.6. Figure 9 to Figure 11 show the average speed time for the AM peak, inter peak and PM peak based on the processed Trafficmaster GPS data by ITN link. The figures split the average speed by direction into the following bands:

- 0 - 15 mph
- 16 - 30 mph
- 31 - 45 mph
- 46 - 60 mph
- 60+ mph

4.5.7. Figure 9 and Figure 11show there are lower average speeds in the AM peak and PM peak compared to the inter peak in Figure 10 as expected. The lowest speeds between 0 – 20 kmph are concentrated in town centres such as Ipswich and Bury St. Edmunds. Known locations with congestion problems such as the Copdock Interchange (A14 / A12) and A14 Junction 56 near Ipswich, as well as the A134 and Junction 44 at Bury St. Edmunds are shown to have low average speeds in the AM and PM peak of between 0 – 20 kmph. The inter-peak shows an increase in average travel speeds due to lower levels of congestion, with speeds typically not falling below 25 kmph

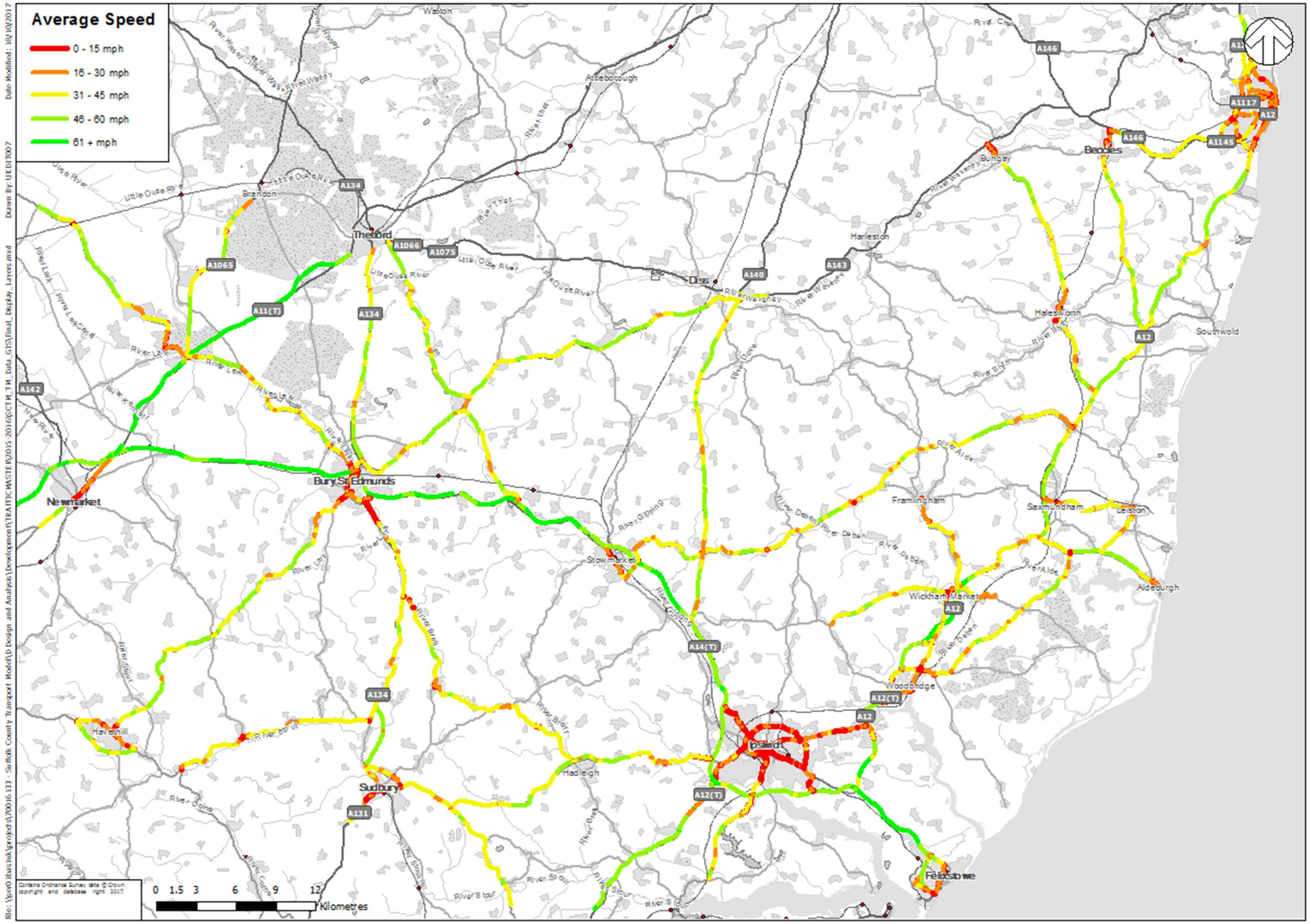


Figure 9 - Journey time routes – AM peak average speed

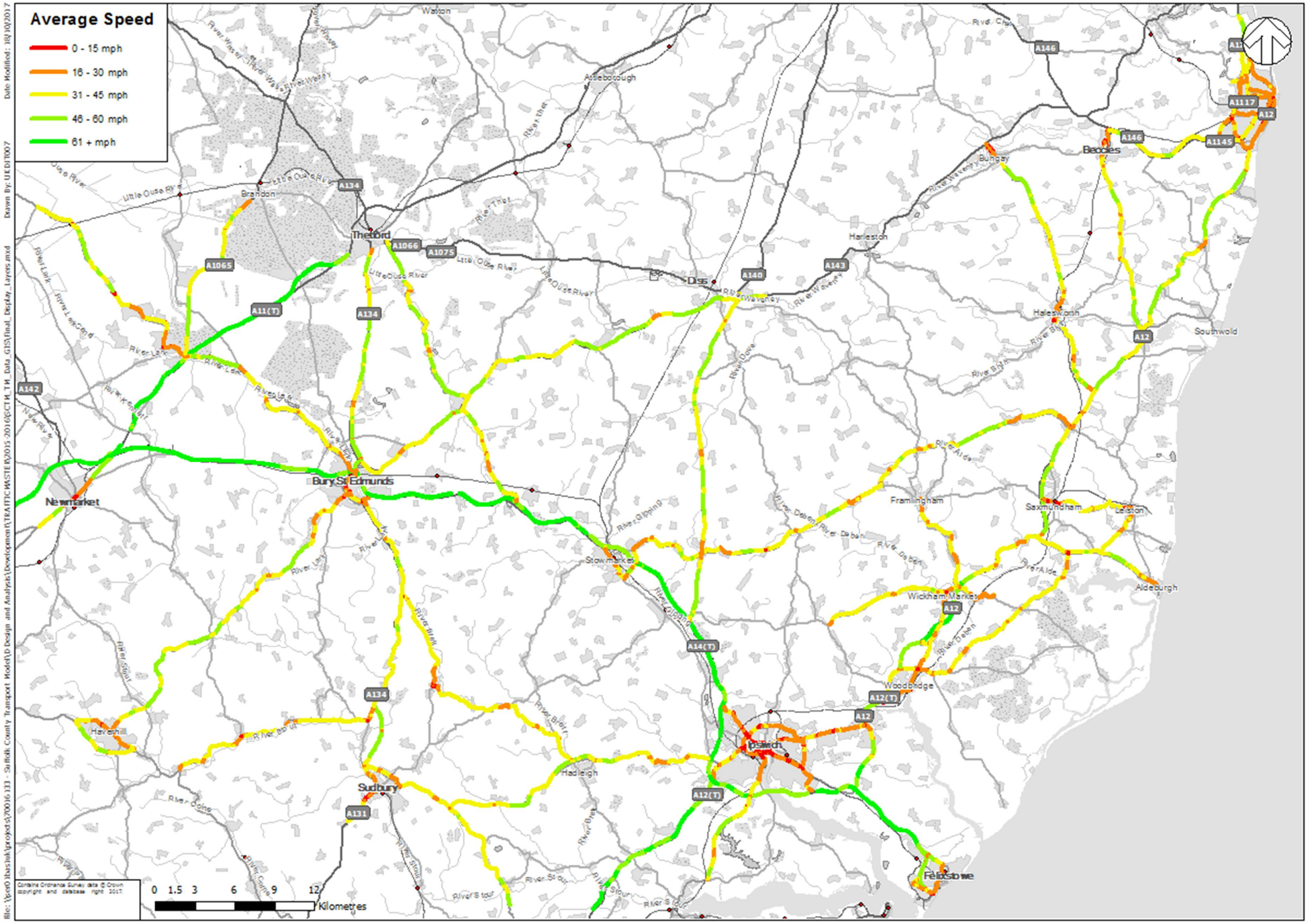


Figure 10 - Journey time routes – Inter peak average speed

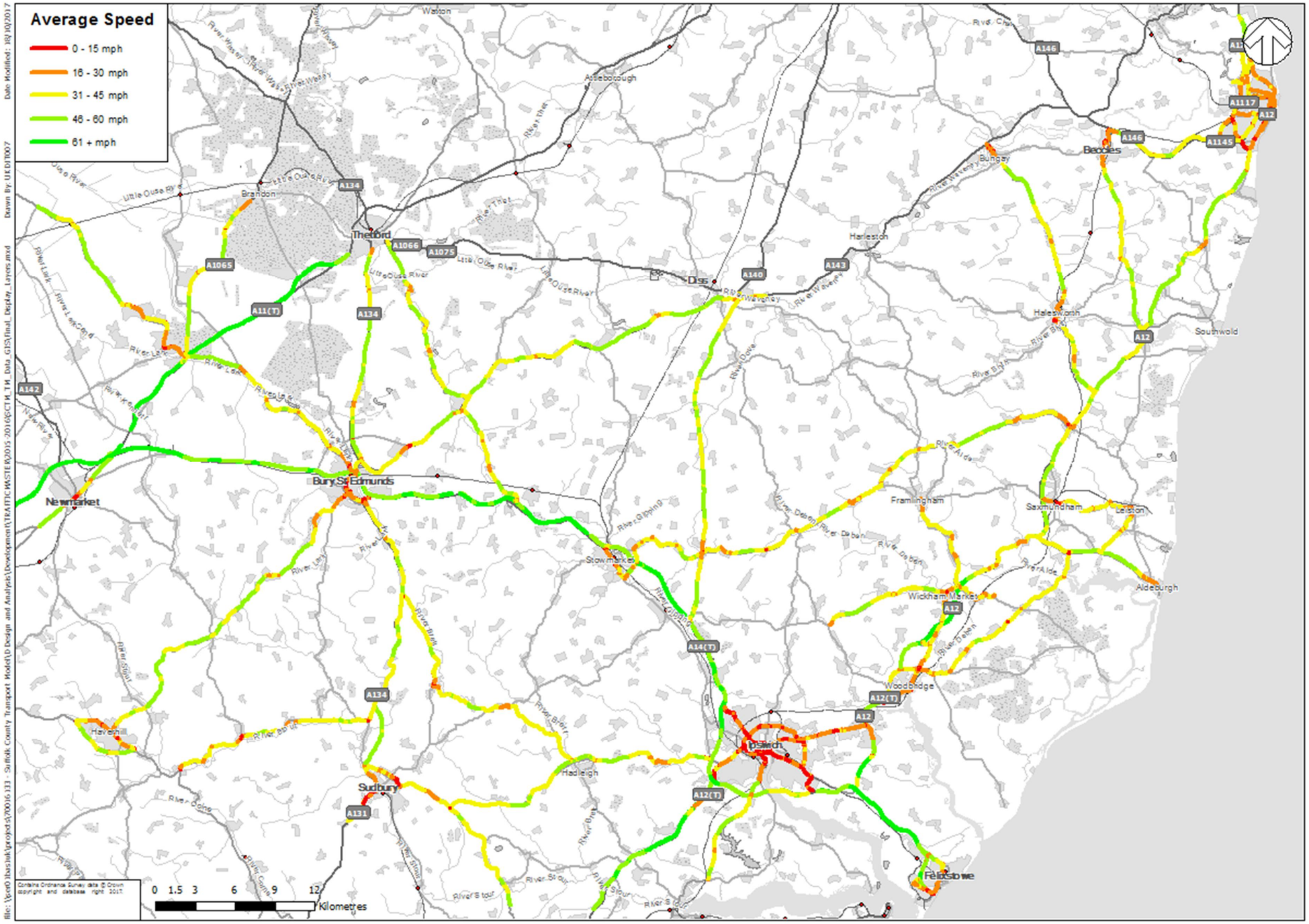


Figure 11 - Journey time routes – PM peak average speed

4.5.8. Overall, the coverage of the journey time routes is deemed comprehensive as it covers the major strategic routes across Suffolk. In total 78 journey time routes will be used for validation of the SCTM, 76 in two directions, 2 routes in one direction. Analysis of the average speeds across the selected routes and by individual link making up the overall routes suggest the data realistically emulates known congestion within Suffolk. It has been ensured there is an adequate number of observations across each journey time route, with all links within a journey time route having a minimum of 12 observations. It is considered the journey time route data is appropriate to for validation of the SCTM to ensure the model accurately reflects travel time on key corridors and congestion

5 APRIL 2016 COUNTYWIDE DATA COLLECTION

5.1 INTRODUCTION

5.1.1. WSP commissioned Intelligent Data to carry out traffic surveys across Suffolk during April 2016. This section details the surveys commissioned (ATC, MCTC, ANPR) and the processes used to cleanse the data. A number of surveys had to be repeated due to roadworks or data error. This is set out below.

5.2 OVERVIEW OF ATC AND MCTC SURVEYS

5.2.1. ATCs covered several days and are used for model calibration and validation. The MCTCs were carried out on a single day and will be predominantly used for model validation, though in some cases these will be used for calibration.

5.2.2. Table 15 summarises the data which was collected across the county.

Table 15 - Summary of Surveys Commissioned

SURVEY TYPE	NUMBER OF SURVEYS
Automatic Traffic Counts (ATCs)	227
Manual Classified Turning Counts (MCTC)	34
Classified Turning Count using ANPR	1

5.2.3. ATCs were laid out to collect data between Thursday 7 April 2016 and Monday 25 April 2016, therefore providing just over two continuous weeks of data. However, Thursday 7 April 2016 and Friday 8 April 2016 were part of the Easter school holidays in Suffolk; therefore data from these days was excluded. Four of the sites, 188, 193, 213, and 228 experienced technical issues with the downloading of the data so had to be repeated. These sites were resurveyed between Friday 10 June 2016 and Friday 24 June 2016. The issues regarding data loss at ATC sites is discussed in Section 3.2. Site 225 was also resurveyed due to a parked vehicle disrupting the count and extensive data loss during the April 2016 survey period. Data was instead collected between available between Friday 6 May 2016 and Friday 3 June 2016.

5.2.4. The majority of the MCTCs were carried out between 07:00 and 19:00 on Tuesday 12 April 2016. Intelligent Data reported that six MCC sites (22, 24, 25, 26, 33 and 34) were vandalised during Tuesday 12 April. These locations were instead surveyed on Thursday 14 April. The MCTC surveys therefore all overlap with the main ATC survey period in April 2016.

5.2.5. The ATC data classified vehicles into the following categories:

- Car
- LGV– goods vehicles up to 3.5 tonnes
- OGV1
- OGV2
- Motorcycle

5.2.6. The MCTC data was split into the following vehicle classifications:

- Car
- LGV – goods vehicles up to 3.5 tonnes
- OGV1
- OGV2
- PSV
- Motorcycle
- Pedal Cycle

5.2.7. Table 16 describes the locations of the ATCs and MCTCs by town in Suffolk

Table 16 - Survey locations by town in Suffolk

Name of Town	MCC	ATC
Ipswich	7	3
Lowestoft	0	0
Newmarket	2	9
Haverhill	2	11
Sudbury	3	20
Felixstowe	2	10
Stowmarket	3	11
Bury St Edmunds	8	27
Beccles	0	10
Outside of Main Towns	7	126
TOTAL	34	227

5.2.8. Table 17 describes the locations of the ATCs by district / borough in Suffolk

Table 17 - Survey locations by district / borough in Suffolk

District / Borough	Number of ATCs
Babergh	41
Forest Heath	21
Mid Suffolk	34
St Edmundsbury	53
Suffolk Coastal	51
Waveney	27
TOTAL	**227**

5.2.9. Figure 12 shows the location of the ATCs and MCTCs which have been commissioned for the SCTM.

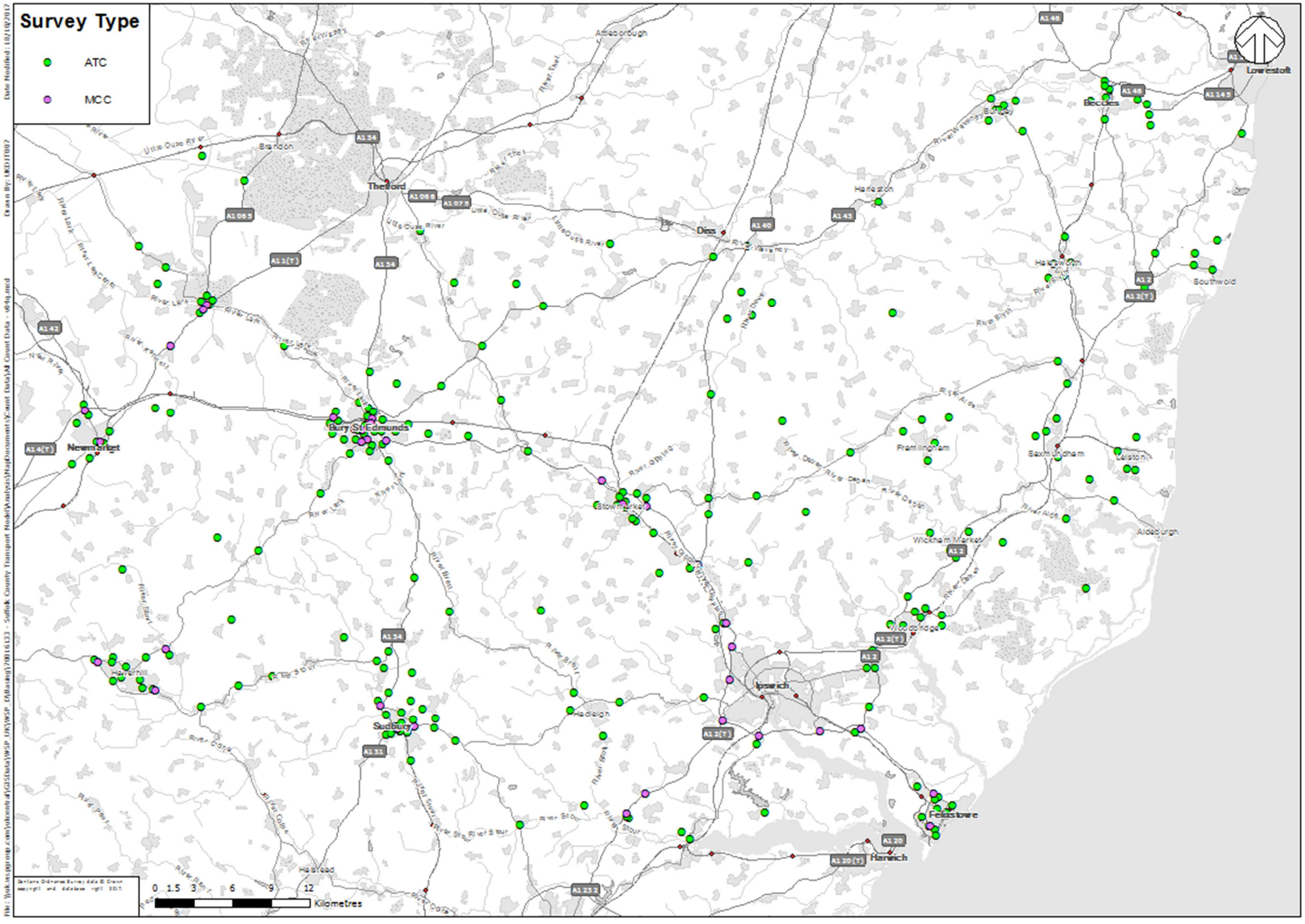


Figure 12 - Location of ATCs and MCCs

CLASSIFIED TURNING COUNT USING AUTOMATIC NUMBER PLATE RECOGNITION (ANPR)

5.2.10. A turning count was carried out in Newmarket using Automatic Number Plate Recognition (ANPR) on Tuesday 12 April 2016 between 07:00 and 19:00. This survey was carried out at the request of Suffolk County Council in order to capture movements within Newmarket town centre, specifically the movement from Waitrose to the B1103 Fred Archer Way which requires drivers to travel around the town centre gyratory system.

5.2.11. This survey overlapped with the MCTC 16 at the A142 Fordham Road/A1304 Bury Road/Station Road/High Street/Exeter Road roundabout.

5.2.12. ANPR cameras were set up at the following sites:

- Site 1 – Exeter Road
- Site 2 – B1103 Fred Archer Way
- Site 3 – Waitrose Access
- Site 4 – A142 Fordham Road (north of Fred Archer Way)
- Site 5 – A142 Fordham Road (on approach to MCTC 16)

5.2.13. Manually classified counts were carried out at each site shown in Figure 13 to allow expansion of the ANPR data.

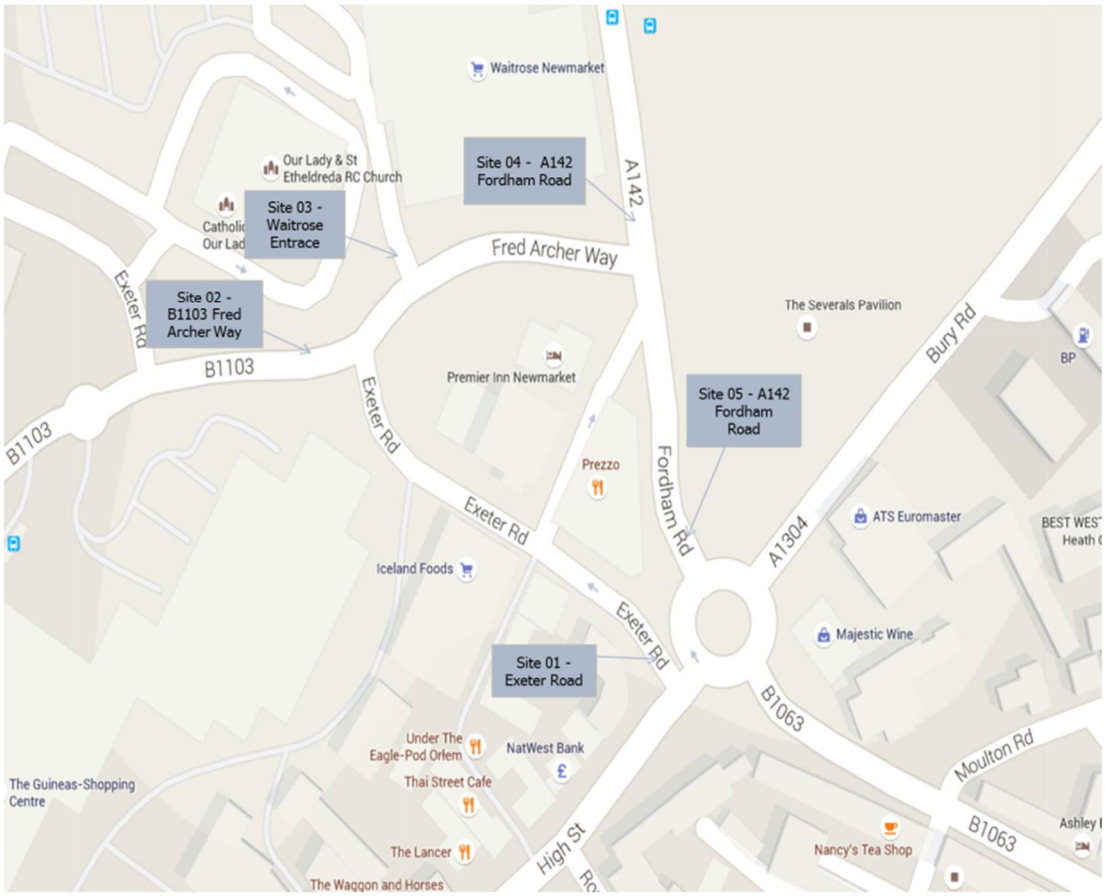


Figure 13 - Newmarket town centre camera locations

5.3 ATC DATA ANALYSIS

ATC DATA LOSS / DATA CLEANING

5.3.1. Intelligent Data reported data loss at various ATC sites detailed in Table 18. Data cleaning was carried out for each at each of the sites, discussed later in this report, analysing whether observations were within 5% of the average flow. The table indicates the maximum and minimum number of observations available at each ATC location following the data cleaning which has been used to determine how significant the data loss was. The number of observations following the data cleaning was determined by peak period and direction which is why there is a range of numbers of observations at each site.

5.3.2. It is considered sites which have less than eight observations, representing two full weeks of data (Monday to Thursday) should be used where possible for validation of the SCTM highway assignment rather than calibration.

Table 18 - Data loss reported by Intelligent Data

Site	Comment	Min Obs	Max Obs	Comment
1	The tubes were damaged from the 10th at 14:15 to the 14th at 16:15	5	9	ATC provides sufficient sample size in NB direction
5	The tubes were damaged from the 22nd at 13:45	3	8	ATC provides sufficient sample size in SB direction in AM. Low number in other time periods
13	The tubes are damaged from the 20th at 12:15	6	7	Number of observation marginally below minimum to 8.
14	There was corruption from the 14th at 15:00 to the 16th at 15:15	9	10	Corruption occurred mainly outside of the critical Mon-Thurs period. 15th and 16th being Friday and Saturday
17	There is corruption on the 17th between 14:00 to 15:15, the 24th between 03:00 to 06:00 and 09:15 to 11:25	7	8	Corruption occurred on Sundays not within the critical Mon-Thurs period.
18	There is corruption on the 11th at 23:15, 16th at 02:45, 04:00, 05:00, 23:45 and the 17th at 00:00.	7	9	Corruption occurred late in the evening or early morning. Not at the critical time periods.
19	The tubes are damaged from the 16th at 14:45 to the 19th at 12:15	7	8	8 obs still recorded as damage occurred between Saturday and Tuesday. Therefore only losing data for 2 days of interest
20	The tubes are damaged from the 16th at 14:30 to the 19th at 11:30	4	7	Low sample size in PM peak for EB direction, marginally below minimum of 8 in other time periods and directions.
23	The tubes were damaged from the 19th at 13:45	5	6	Number of observation marginally below minimum to 8.
24	The tubes were damaged from the 20th at 19:30	6	7	Number of observation marginally below minimum to 8.
25	The tubes were damaged from the 22nd, affecting the northbound flow	4	9	Damage occurred towards the end of the count period therefore a sufficient sample size is still available, though low for Direction 2 in PM peak
26	The tubes were damaged from the 12th to the 19th at 14:30	3	4	Site will not be used for calibration only validation.

Site	Comment	Min Obs	Max Obs	Comment
29	Cars and LGVs can be hard to differentiate between, causing higher LGV counts than cars. Tubes were damaged on the 18th at 07:45 and repaired on the 19th at 15:45.	7	8	Damage occurred for less than two days. Sufficient number of observations
39	The tubes were damaged from the 19th at 17:15	3	5	Site will not be used for calibration only validation.
45	A vehicle often parks on the ATC, causing gaps in the data.	7	11	Sufficient number of obs, only PM in Direction 1 marginally below minimum of 8.
52	The tubes were slightly damaged up to the 26th.	12	19	Sufficient sample size
54	The tubes were damaged from the 19th at 09:45 to 10:45	23	24	Damage only occurred for 1 hour.
60	There was corruption from the 20th at 03:15 to the 22nd at 14:00	3	8	8 obs available before corruption occurred. Corruption during Friday 22nd not a critical day. Low sample in PM peak for both directions
61	The tubes were damaged from the 13th to the 19th at 11:15	11	12	12 obs available outside of the damage period which will be sufficient.
69	The tubes were damaged from the 23rd at 12:00	6	8	Damage occurred towards the end of the count period, generally sufficient sample size
78	The tubes are damaged from the 21st at 16:15	5	8	Damage occurred towards the end of the count period, PM peak has lower number of obs in Direction 2
84	The tubes are damaged from the 13th at 16:00 to the 19th at 11:15	4	7	Site will not be used for calibration only validation.
85	From 18:15 to 20:15 on the 14th, the ATC malfunctioned and couldn't collect data.	9	10	Malfunction occurred for a short time outside of peak hours.
87	There was corruption on the 21st at 03:45 to the 22nd at 11:45	3	4	Site will not be used for calibration only validation.
99	Due to a tube failure, there is no data from 15:15 on 15th until 11:45 on 19th April.	11	13	Only 2 critical days were missed due to failure, still a large sample size
104	The tubes were damaged from the 19th at 08:45 to 11:30.	13	15	Tube damaged for a short time period. Still a large sample size
105	The tubes were damaged from the 20th at 17:30	2	7	Low number of observations in AM in the EB direction
106	The tubes are damaged from the 22nd at 12:00	6	8	Damage occurred towards the end of the count period therefore a sufficient sample size is still available
117	The tubes were damaged from the 19th at 10:45 to the 26th at 17:30	7	9	Damage occurred towards the end of the count period therefore a sufficient sample size is still available
120	The tubes were damaged from the 9th at 18:45 to the 13th at 09:00	9	10	Damage period started on the weekend, large sample size still available

Site	Comment	Min Obs	Max Obs	Comment
122	There was corruption on the 14th from 03:30 to 07:00 and 19:00 to the 20th.	4	8	Corruption occurred in the early hours on the 14th not within the peak hours/period. 8 obs still available
123	There is corruption on the 22nd from 08:45 to 09:30	7	8	Damage occurred towards the end of the count period therefore a sufficient sample size is still available
137	The tubes were damaged on the 13th at 12:15 to 13:30	6	9	Damage only lasted for a short period of time
140	The tubes were damaged from the 8th at 10:45 to the 14th at 12:15	5	6	Site has marginally below minimum of 8 observations.
143	The tubes for the southern direction were damaged up to the 14th at 11:15	3	7	AM in EB direction, PM in WB direction have low number of observations.
152	The tubes were damaged on the 20th from 00:00 to 01:15	4	9	Damaged only occurred for a short period and late in the evening.
153	The tube is damaged from the 20th at 18:00 to the 27th at 14:00	4	8	8 obs are still available despite the tube being damaged for approx. 7 days, except for SB in AM peak
158	There is battery failure on the 18th from 09:15 to 12:00	7	8	Failure only lasted 4 hours 45 minutes.
159	The tubes were damaged from the 7th at 14:15 to the 13th at 16:30	8	10	Damage rectified early enough for sufficient observations
164	There is corruption on the 18th at 10:00 to 13:00	8	8	Corruption only lasted 3 hours
171	The battery failed on the 18th from 10:30 to 12:30	7	8	Failure only lasted 2 hours
174	There was corruption on the 18th at 11:00 to 12:30 and on the 24th at 20:30	6	8	Corruption on the 24th was on a Sunday which is not a critical day. Corruption on the 18th only lasted 1 hour and 30 mins.
183	There was corruption on the 18th from 11:00 to 13:00	8	8	Corruption only lasted 2 hours
186	There was corruption on the 18th at 12:45	8	8	8 obs are still available
212	There is corruption on the 18th between 12:00 and 13:00	6	8	Corruption only lasted 1 hour.
216	The tubes were damaged from the 13th to the 19th at 08:15	2	3	Site ideally should be used for validation only.
218	The tubes were damaged from the 19th at 12:30 to the 28th at 23:00	12	13	Sufficient sample size
219	The tubes were damaged on the 11th to the 13th at 04:30 and from the 22nd at 15:15	1	6	Site will be used for validation only ideally as low number of observations in both directions in PM peak.
221	The tubes were damaged on the 14th from 18:00 to 22:15	7	12	Damage occurred after the evening peak.
225 - 05.05.2016	The tubes had a vehicle parked on them on the 17th at 18:00 to the 18th at 07:15, the	6	10	Generally sufficient number of observations

Site	Comment	Min Obs	Max Obs	Comment
	24th at 17:45 to the 25th at 07:15 and the 2nd at 18:00 to the 3rd at 08:15			
225 - 12.04.2016	There was a car parked on the tubes on the 13th at 18:15 to the 14th at 06:45, 15th at 19:00 to the 18th at 07:45 and the 21st at 18:15 to the 22nd at 07:15		-	May 2016 observations will be used for this site due to April 2016 data loss.

5.3.3. As demonstrated above, data loss commonly occurs at ATC counts as they can be easily damaged by vehicles passing over them. The data loss outlined above is not deemed significant as outlined against each site.

5.3.4. Following analysis and cleansing all of the ATC data adheres to section 3.3 of WebTAG unit M1.2 (January 2014) which provides advice on 'neutral' time periods to carry out traffic surveys which are considered to represent typical traffic conditions. The Spring (Easter) school holiday in Suffolk took place from Friday 25 March 2016 to Friday 8 April 2016, and therefore data from Thursday 7 and Friday 8 was excluded from the analysis. This guidance also considers Monday to Thursday to be neutral and representative of typical weekday traffic. For each of the ATCs, this meant there should be a minimum of eight days of data.

5.3.5. Analysis was conducted to clean the data to ensure the data being used complied with the data accuracy requirements of WebTAG M1.2 and thus to remove any observations that might be affected by unusual events. As stated in WebTAG M1.2 the 95% confidence interval for Automatic Traffic Counts should assumed to be based on the following:

- Automatic Traffic Counts: total vehicles ± 5%;

5.3.6. Initially this criteria was strictly adhered to with values greater than 5% or lower than 5% compared to the mean excluded. However, following sense checking of the data omitted at each site, this threshold was relaxed in certain instances. This is because at some sites the values which were removed were very close to the values being retained. The cleansing process did result in the reduction in the number of observations being used for the average value, and this is summarised in Appendix A1.

5.3.7. It was evident throughout the cleansing process that, as is often the case, some of the ATC sites were counting cars as LGVs given the similarity in the axle length. Consequently to provide a vehicle class split, vehicle proportions are to be taken from the MCTCs. This split is outlined in section 5.4.

5.4 JUNCTION TURNING COUNT DATA

MANUALLY CLASSIFIED TURNING COUNTS

5.4.1. Junction turning count data was manually classified for the AM peak hour, average interpeak hour and PM peak hour and will be predominantly used for model validation. Car, LGV, OGV1 and OGV2 vehicle types were used to devise the junction matrices based on turning movements at each surveyed junction.

5.4.2. The vehicle class split from the MCTCs was applied to the ATC count data given the known issues of deriving splits of vehicle types based on axle length in ATC data.

Table 19 provides a summary of the proportions applied for each vehicle class.

Table 19 - Manual classified turning count vehicle splits

Peak Hour	CAR	LGV	HGV
AM	81%	14%	5%
IP	77%	15%	8%
PM	86%	11%	3%

ROADWORKS A1189 NACTON ROAD

5.4.3. Analysis of the count data at MCTC 21 (A14 Junction 57) showed very low flows across the survey day for the southbound A1189 Nacton Road arm. Further investigation of this issue highlights roadworks affecting this arm of the junction, with the road closed for 24 hours during the survey day. Suffolk County Council confirmed the roadworks were in place for a three week period.

5.4.4. There is likely to be significant re-routing due to the roadworks affecting the traffic distribution in southern Ipswich. It is considered the A14 Junction 56 (MCTC 10) will also be affected. The diversion route related to the A1189 Nacton Road roadworks is understood to have been the A1156 Felixstowe Road, the southern arm of the A14 Junction 58 (MCTC 9).

5.4.5. Junction turning counts were carried out in 2015 at both northern and southern slip road roundabouts for the A14 Junction 56 and A14 Junction 57 to support the Wet Dock OBC modelling. For the Suffolk County Model, these junction turning counts will be used instead of the MCTCs 10 and 21. There is no alternative traffic count available for the A14 Junction 58 (MCTC 9), during validation it will be considered the A1156 Felixstowe Road arm is likely to show significantly increased flow.

A14 JUNCTION 58 SURVEY

5.4.6. Owing to issues identified at junction 58 a further MCC survey was carried out at this junction in October 2016. The April 2016 counts have SMV IDs of 1218 – 1227, whilst the October 2016 SMV IDs are 1759-1768. Count balancing has also been undertaken on the A14, with SMV ID 1831, adjusting the A14 WB Entrance flow. Table 20 provides a comparison of the new counts, whilst Appendix D2 provides a full breakdown of the flow values.

Table 20 - A14 Junction 58 April / October Survey Comparison

SMV ID Apr-16	SMV ID Oct-16	Site Location	Total	Car	LGV	HGV
1218	1759	A14 / A12 Junc. - A12 Entrance	-74	-38	-41	5
1219	1760	A14 / A12 Junc. - A12 Exit	-139	-97	-47	5
1220	1761	A14 / A12 Junc. - Unknown Road Ent.	22	22	0	0
1221	1762	A14 / A12 Junc. - Unknown Road Exit	-2	-1	-2	1
1222	1763	A14 / A12 Junc. - A14 WB Ent.	23	25	-9	7
1223	1764	A14 / A12 Junc. - A14 EB Exit	-6	-25	6	13
1224	1765	A14 / A12 Junc. - A1156 Entrance	63	-24	55	32
1225	1766	A14 / A12 Junc. - A1156 Exit	-94	-60	-35	1
1226	1767	A14 / A12 Junc. - A14 EB Ent.	-152	-67	-87	2
1227	1768	A14 / A12 Junc. - A14 WB Exit	123	101	-4	26

5.4.7. It can be seen that there are some large turning count changes, underlining the need for the resurvey.

COMPARISON OF JUNCTION TURNING COUNT DATA AND ATCS

5.4.8. Consistency checks were carried out comparing specific arms of junction turning counts for which there was also a nearby ATC.

5.4.9. Appendices A3 and A4 compares the MCC and ATC flows at selected locations. The average ATC flow was compared to the one-day MCC flow in percentage terms. WebTAG A1.2 specifies the level of accuracy for MCCs is 10%, whilst for ATCs it is 5%. Therefore two tests were carried out comparing upper and lower limits to determine if the values between the two sources were outside these bands. The comparison shows in the majority of cases there is consistency between the single day MCC observation and the flow from the ATC which is an average across several days. However, the counts in Table 21 show inconsistency. In most cases this is because they are through roads or an access to significant land uses which can explain the differences between the two data sources.

Table 21 - Traffic count consistency checks

MCC	ATC	Comment
4	108	Links in between MCC and ATC
4	95	Links in between MCC and ATC
5	108	Links in between MCC and ATC
6	MCC 23 Arm A	Links in between MCCs
6	88	AM Peak ATC value error
8	144	Link in between MCC and ATC
9	156	Seven Hills Crematorium in between
10	8	Links in between MCC and ATC
15	41	Links in between MCC and ATC
16	45	Links in between MCC and ATC
16	44	Links in between ANPR and ATC
23	MCC 6 Arm D	Links in between MCCs
24	119	Links in between MCC and ATC

5.4.10. The exception is the comparison between ATC 88 and MCC 26 Arm C on A1302 Cullum Road in Bury St. Edmunds. The two data sources show similar values in the inter peak and PM peak, however in the AM peak the northbound ATC flow is very low with the MCC 26 Arm C approach flow 142% higher. In the southbound direction, MCC 26 Arm C exit flow is 53% lower compared to the southbound flow on ATC 88. Intelligent Data were asked to check the ATC data at this location to see if the directions were correct when the data was processed and they could not identify any issues. The difference in traffic between the two sources could be due to the land use between the two counts which includes various employment uses, therefore the zoning in the SCTM highway model will need to be able to accurately reflect the land uses at this location.

NEWMARKET TOWN CENTRE ANPR

5.4.11. A summary of the sample rate and match rate for the ANPR-based turning count survey carried out in Newmarket town centre is shown in Table 22.

Table 22 - Newmarket ANPR Sample and Match Rate

Site	Inbound Sample Rate	Outbound Sample Rate	Inbound Match Rate
Site 01	62%	50%	54%
Site 02	93%	93%	80%
Site 03	92%	84%	79%
Site 04	92%	94%	83%
Site 05	93%	90%	86%
Total	92%	91%	83%

5.4.12. The sample rate shows the proportion of vehicle number plates captured compared to the manually classified count also undertaken alongside each ANPR camera survey. The average sample rate is high, over 90% in both the inbound and outbound direction, which is considered acceptable. However, at Site 01 'Exeter Road' the sample rate is shown to be lower with a 62% sample rate inbound. The outbound direction at Site 01 represents vehicles travelling southbound on what is a northbound only link. This only involves two vehicles; therefore the 50% sample rate should not be considered an issue. Intelligent Data advises there were limited fixing points to fix the ANPR camera at Site 01, this lead to the camera being positioned closer than is considered ideal to capture traffic leading to a lower capture rate of number plates.

5.4.13. The match rate shows the proportion of inbound vehicles which are captured entering by a specific site and then exiting by another site. The overall match rate is 83% which is considered a good result and means the data is suitable for use. The lower match rate of 54% at Site 01 needs to be considered when using this data going forward.

5.4.14. Table B-103 and B-104 in Appendix E2 contains further information on the MCC totals and sample numbers for this survey, as well as a movement matrix across the survey period

6 2016 / 2017 LOWESTOFT LOCAL VALIDATION COUNTS

6.1 INTRODUCTION

6.1.1. WSP commissioned surveys in addition to those outlined in previous sections to support the Lake Lothing Third Crossing Development Consent Order (DCO) modelling. The data obtained from these surveys has been used to improve the local calibration and validation of the SCTM in the vicinity of the Lake Lothing Third Crossing scheme and to inform any subsequent traffic forecasting and economic assessment work.

6.1.2. Two sets of surveys have been commissioned:

- 6 MCTCs carried out by Streetwise Services Ltd on 14th July 2016
- 1 MCTC carried out at the junction of Waveney Drive / Riverside Road / Durban Road by Advanced Transport Research (ATR) on 5th July 2017

6.1.3. Figure 14 shows the locations of the surveys conducted.

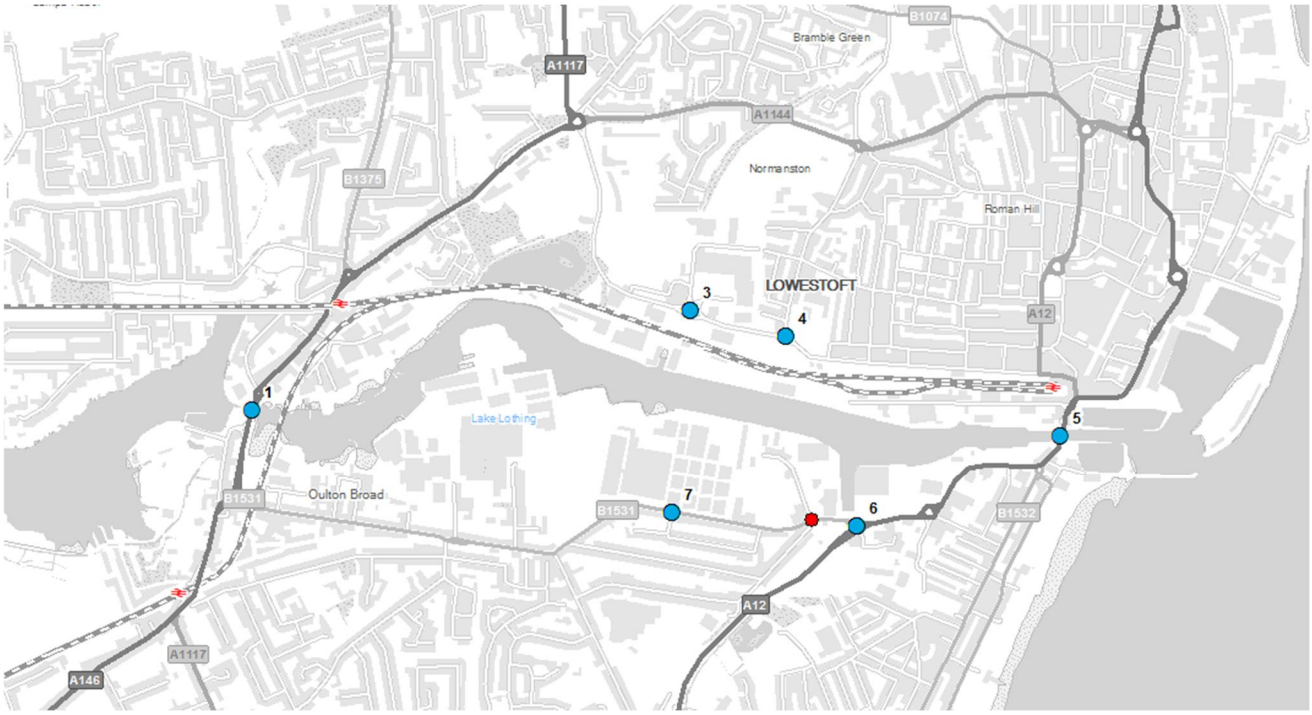


Figure 14 - Lowestoft MCC Surveys 2016 and 2017

6.2 MCC SURVEYS JULY 2016

6.2.1. Table 23 describes the locations of the junction surveyed on 14th July 2016.

Table 23 - Lowestoft MCC Surveys July 2016

SMV IDs	Ref	Site Location
1769 - 1770	1	A1117 Bridge Road
1771 - 1780	3	Denmark Road / Peto Way - Barnards Way
1781 - 1786	4	Denmark Road / Rotterdam Road - Rotterdam Road
1787 - 1788	5	A12 Pier Terrace
1789 - 1798	6	A12 Horn Hill / A12 Tom Crips Way / Waveney Drive

SMV IDs	Ref	Site Location
1799 - 1804	7	B1531 Waveney Drive / Waveney Crescent - Waveney Drive

6.3 MCC SURVEY JULY 2017

6.3.1. Table 24 describes the locations of the junction surveyed on 5th July 2017.

Table 24 - Lowestoft MCC Surveys July 2017

SMV IDs	Ref	Site Location
2331 - 2338		Waveney Drive / Riverside Road / Durban Road

6.4 SEASONAL VARIATION IN TRAFFIC FLOWS

6.4.1. Analysis has been carried out on the variation in flow across each month in 2016 using data from permanent ATC sites provided by SCC in Lowestoft. Data was available for all 12 months in 2016 at the following sites:

- C116 – A12 Tom Crisp
- M051 – Saltwater Way, Oulton Broad
- M097 – Artillery Way
- Y159 - London Road, Pakefield

6.4.2. Figure 15 shows the variation in combined traffic flow across the four ATC locations. This compares the Monday to Thursday average flow, which is used in calibration and validation of the SCTM, to the Monday to Friday, and Saturday to Sunday flow. This comparison highlights the average flow is generally higher when Friday is included as part of the weekday average flow. The weekend flow as expected is shown to be significantly lower than both weekday flow averages.

6.4.3. In terms of variation by month; June, July, August and September are shown to have weekday traffic flows above the yearly weekday average dashed line (which is based on the Monday to Friday average). As expected the non-neutral winter months of December, January and February show flows significantly below the average weekday flow.

6.4.4. For January there were a limited number of observations available with the only Friday observation available across all three sites being 1st January 2016 which is an atypical day being a public holiday. This is why there is a notable difference between the Monday to Thursday, and Monday to Friday average flows for this month.

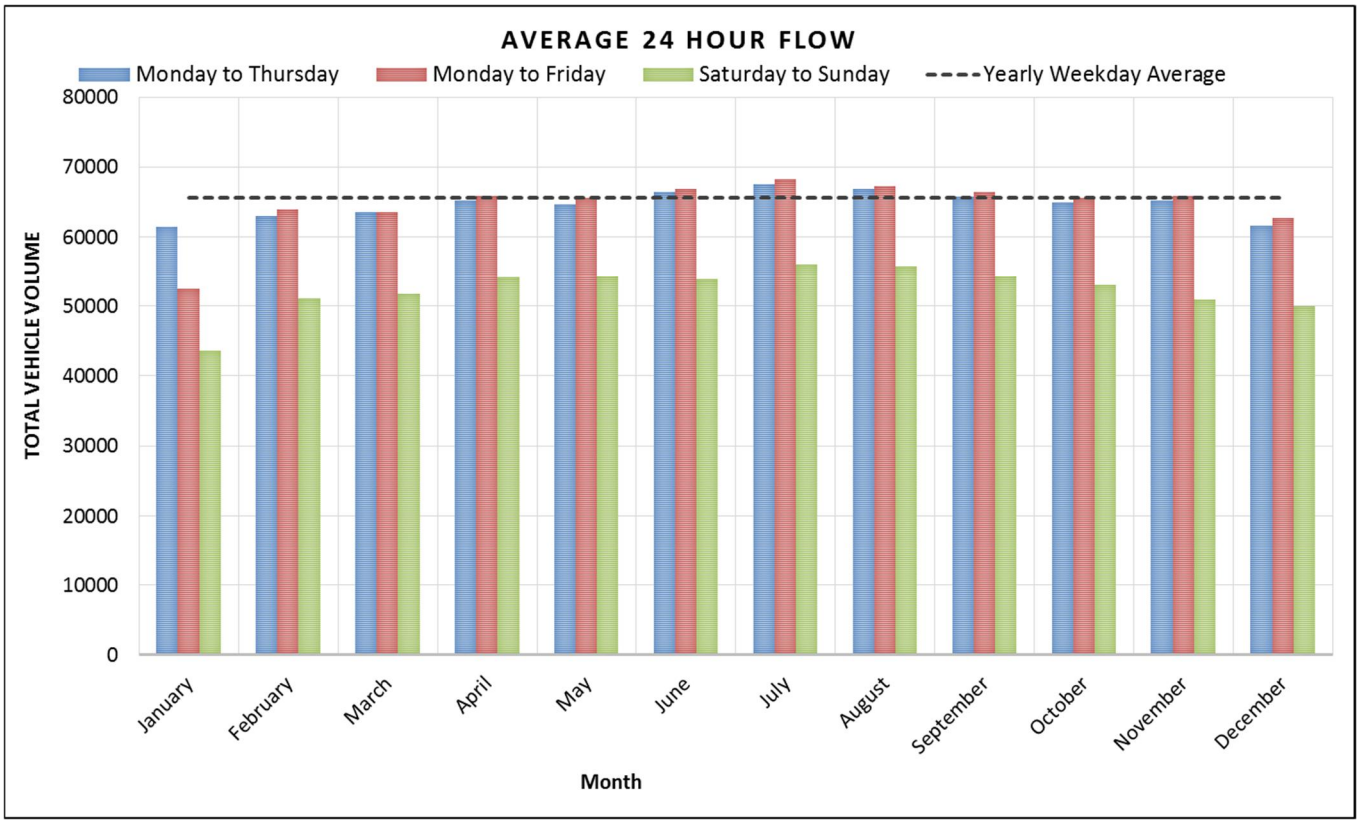


Figure 15 – Lowestoft – Monthly variation in average traffic flows

6.4.5. Figure 16 provides a comparison by month of the 24 hour AADT and AAWT by month for four ATC sites combined. As expected this shows significantly higher AAWT flows compared to AADT flows due to the average flow being reduced by the lower weekend flows. As with the previous analysis based on day of the week, Figure 16 shows June, July, August and September are the months when traffic flows are above the yearly average.

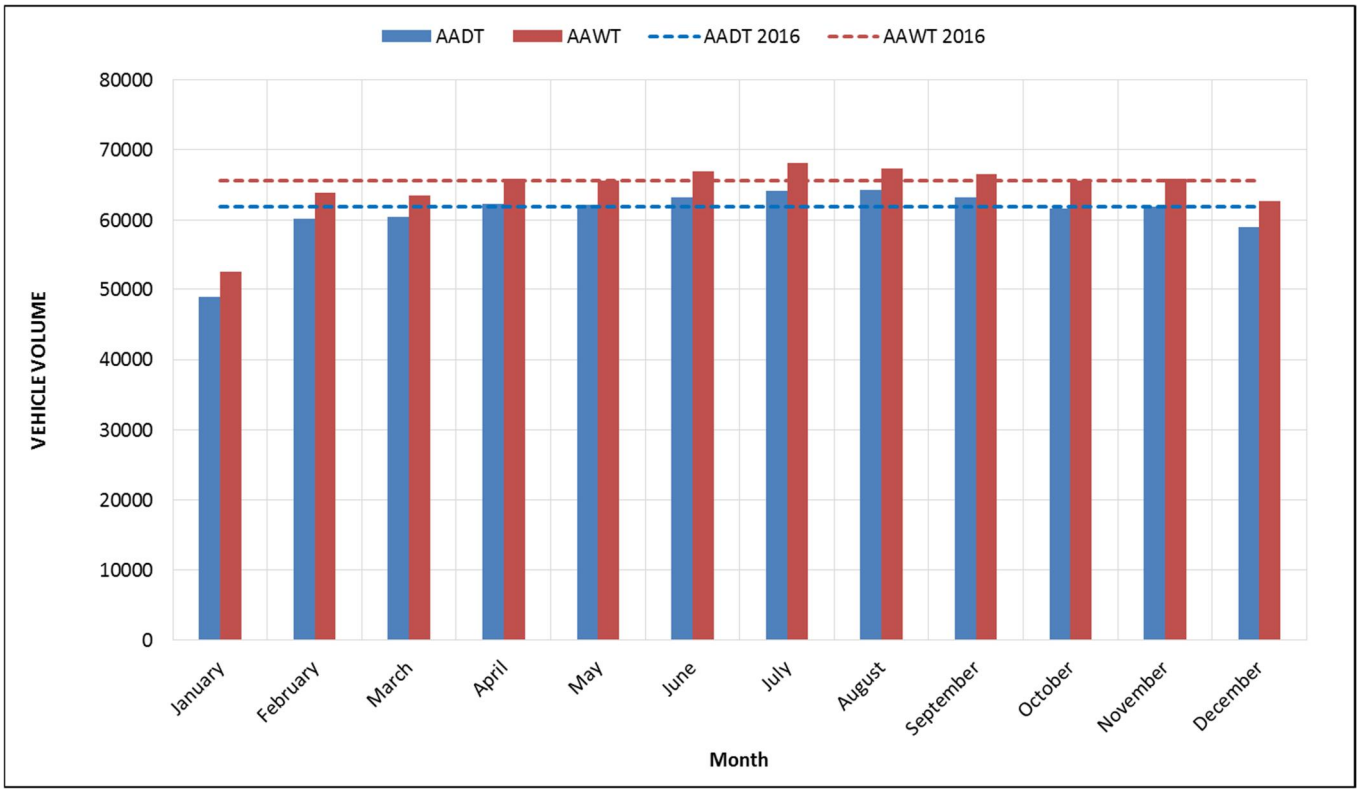


Figure 16 - Lowestoft – Monthly variation in AADT & AAWT

6.4.6. The majority of the observed traffic data used to calibration and validated the SCTM in Lowestoft is for July. This is shown to be a month when traffic flows are higher than the yearly average weekday flows. The SCTM has been calibrated and validated based on Monday to Thursday average traffic flows which are shown to be lower than an average which includes Friday flows. This should therefore be considered going forward when claiming benefits associated with the Lake Lothing Third Crossing, particularly in terms of the annualisation factors.

7 2017 SUFFOLK ENERGY GATEWAY (SEGWAY) LOCAL VALIDATION COUNTS

7.1 INTRODUCTION

7.1.1. Traffic surveys specifically commissioned for the SEGWay appraisal were carried out by Advanced Transport Research (ATR) on behalf of WSP in May 2017 and June 2017 and are discussed within this report. The data obtained from these surveys will be used to improve the local calibration and validation of the SCTM in the vicinity of the SEGWay scheme and to inform any subsequent traffic forecasting and economic assessment work.

7.1.2. Table 25 summarises the data which was collected and the survey period. ATCs covered several days and the MCTCs were carried out on a single day which overlapped with when the ATCs were undertaken.

Table 25 - Summary of SEGWay Surveys Commissioned

Survey Type	Total number of sites	Date undertaken
Automatic Traffic Counts (ATCs)	36	Main survey period: 9th May to 22nd May 2017 / June 2017
Manual Classified Turning Count	3	18th May 2017 0700-1900

7.1.3. Specific ATCs had to be re-laid due to the being damaged or not collecting data correctly during the May 2017 survey period. This includes the following ATCs described in Table 26.

Table 26 – Summary of SEGWay ATCs sites re-laid in June 2017

Site ID	Site Description	Date of survey data
002	Main Road, Near School Lane	May 2017 & 6th June 2017 to 19th June 2017
017	Lane Connecting A12, From Wells Cottage	May 2017 & 6th June 2017 to 19th June 2017
026	Woodbridge Road	May 2017 & 6th June 2017 to 19th June 2017
027	Orford Road	May 2017 & 6th June 2017 to 19th June 2017
030	Mill Lane, East of Stratford St Andrew	May 2017 & 6th June 2017 to 19th June 2017

7.2 ATC SURVEYS

7.2.1. Figure 17 shows the locations of the surveys conducted for the SEGWay local model validation.

Figure 17 – SEGWay ATC Survey Locations

7.2.2. Table 27 describes the locations of these ATC survey locations and their respective SMV ID.

Table 27 – SEGWay ATC Survey Locations

SMV ID	Ref	Site Location
1851 - 1852	1	A12, Near Park Farm Covert
1853 - 1854	2	Main Road, Near School Lane
1855 - 1856	3	Mitford Road
1857 - 1858	4	Low St-Gemham Road Connecting A12
1859 - 1860	5	Park Road, South of Harrow Lane
1861 - 1862	6	Farnham Road
1863 - 1864	7	Langham Road, Near Friday St Farm
1865 - 1866	8	Langham Road, Connecting A12
1867 - 1868	9	Mill Lane, West of Stratford St Andrew
1869 - 1870	10	Tinker Brook Lane
1871 - 1872	11	Church Road
1873 - 1874	12	Keepers Lane

SMV ID	Ref	Site Location
1875 - 1876	13	A12, Near Park Cottage
1877 - 1878	14	Buttons Road
1879 - 1880	15	Bell Lane
1881 - 1882	16	Marlesford Road
1883 - 1884	17	Lane Connecting A12, From Wells Cottage
1885 - 1886	18	A12, Near Whin Belt
1887 - 1888	19	Lane Connecting To A12
1889 - 1890	20	The Street, Near The Lodge
1891 - 1892	21	Main Road, Near School Lane
1893 - 1894	22a	A12, Near Lower Hatcheston
1895 - 1896	23	Hall Road, Near Silverlace Green
1897 - 1898	24	Lane Connecting B1119
1899 - 1900	25	The Street, Near Tyw Cottage
1901 - 1902	26	Woodbridge Road
1903 - 1904	27	Orford Road
1905 - 1906	28	A22, Near Middleton Road
1907 - 1908	29	Middleton Road, Connecting A12
1909 - 1910	30	Mill Lane, East of Stratford St Andrew
1911 - 1912	31a	A12 South Of B1078
1913 - 1914	32	A12 Saxmundham
1915 - 1916	33	Abbey Lane
1917 - 1918	34	King Georges Avenue
1919 -1920	35	Lovers Lane
1921 - 1922	36	Easton Road

7.2.3. Checks were made for roadworks in the vicinity of the traffic counts during the survey period. Sites 28 and 29 had roadworks in their vicinity between 8th and 10th May, checks of the variation in observations at these sites showed no major change in traffic flows. This was also the case for Site 32 which had roadworks in close proximity between 11th and 12th May.

7.2.4. Following checks for unusual and missing data, and due to ATCs being re-laid during June 2017, all ATCs sites provided a minimum of two weeks of data with average weekday flows based on Monday to Thursday.

7.2.5. The ATC data was classified according to the ARX classification system detailed in Table 28. The data was processed into the required Car, LGV and HGV for model calibration and validation. The distinction between OGV1 and OGV2 was initially kept to understand the split to inform generalised cost parameter assumptions for the model assignment. These were then combined in the observed data to create a single observed HGV value.

Table 28 – ARX classification system

Automatic Traffic Counts Classification Scheme							
Length	**Axles & Groups**		**Vehicle Type**	**ARX Classification**			
Type	**Axles**	**Groups**	**Description**	**Class**		**Parameters**	**Dominant Vehicle**
Short up to 5.5m	**Light Vehicles**						
	2	1 or 2	Very Short Bicycle or Motorcycle	MC	1	d(1) < 1.7 and axles = 2	
	2	1 or 2	Short Saloon, Hatchback, Estate, 4WD, Pick-Up, Light Van, Bicycle, Motorcycle, etc.	SV	2	d(1) > 1.7m. d(1) < = 3.2m and axles = 2	
Medium 5.5m to 14.5m	3, 4 or 5	3	Short - Towing Trailer, Caravan, Boat, etc.	SVT	3	groups = 3, d(1) > 2.1m. d(1) < = 3.2m. d(2) > = 2.1m and axles = 3,4,5	
	Heavy Vehicles						
	2	2	Two Axle Truck or Bus	TB2	4	d(1) > 3.2m and axles = 2	
	3	2	Three Axle Truck or Bus	TB3	5	axles = 3 and groups = 2	
	> 3	2	Four Axle Truck	T4	6	d(1) > 3.2m. axles = 3 and groups = 3	
Long 11.5m to 19.0m	3	3	Three Axle Articulated Three axle articulated vehicle or rigid vehicle and trailer	ART3	7	d(1) > 3.2m. Axles = 3 and groups = 3	
	4	> 2	Four Axle Articulated Four axle articulated vehicle or rigid vehicle and trailer	ART4	8	d(2) < 2.1m or d(1) < 2.1m or d(1) > 3.2m axles = 5 and groups < 2	
	5	> 2	Five Axle Articulated Five axle articulated vehicle or rigid vehicle and trailer	ART5	9	axles = 6 and groups > 2 or axles 6 and groups = 3	
	> = 6	> 2	Six Axle Articulated Six (or more) axle articulated vehicle or rigid vehicle and trailer	ART6	10	axles = 6 and groups >2 or axles > 6 and groups = 3	
	Ungrouped classes						
			Unclassifiable Vehicle		13		
			Unclassifiable Axle Event		0		

7.2.6. Table 29 outlines how the ARX classifications were applied to the model user classes.

Table 29 – ARX classification to SCTM model vehicle classes

ARX ID	Description	Observed data classification
1	Motorcycles	Ignore
2	Car	Car
3	Car – Towing	LGV
4	Two Axle Truck	LGV
5	Three Axle Truck	HGV (OGV1)
6	Four Axle Truck	HGV (OGV2)
7	Three Axle Articulated	HGV (OGV2)
8	Four Axle Articulated	HGV (OGV2)
9	Three Axle Articulated	HGV (OGV2)
10	Four Axle Articulated	HGV (OGV2)

7.2.7. Vehicle classification splits from the MCTCs described in Section 7.3 were used to adjust the vehicle classification splits in the ATC data. The splits from the MCTCs were differentiated between A12 arms and non-A12 arms to account for the varying traffic composition between a key strategic road and minor local access roads.

Table 30 – MCTC vehicle classification applied to ATCs

Time Period	A12			Other Roads		
	Car	LGV	HGV	Car	LGV	HGV
AM Peak	78%	17%	5%	81%	14%	5%
Inter Peak	77%	16%	7%	80%	15%	5%
PM Peak	84%	14%	2%	86%	12%	2%

7.2.8. Analysis of the rolling peak hour flows within the SEGWay ATC data reveals the following time periods represent the peak in traffic:

- AM peak – 0745 to 0845
  - 5% higher than the 0800-0900 time period
- Inter peak – 1500 to 1600
- PM peak – 1630 to 1730
  - 8% higher than the 1700-1800 time period

7.2.9. It was not considered proportionate to change the modelled time periods in the SCTM to match the local peak hours in the SEGWay surveys. The 227 ATCs detailed in Section 5 have been used to determine the peak hours modelled within the SCTM. The differences in peak time periods could be considered as a sensitivity test for appraisal of the SEGWay scheme.

7.3 MCTC SURVEYS

7.3.1. Figure 18 shows the locations of the MCTCs surveys commissioned.

Figure 18 – SEGWay MCC Survey Locations

7.3.2. The MCTCs were carried out between 07:00 and 19:00 on Thursday 18 May 2017. The MCTC surveys therefore all overlap with the main ATC survey period in May 2017.

7.3.3. The MCTC data was split into the following vehicle classifications:

- Car
- LGV – goods vehicles up to 3.5 tonnes
- OGV1
- OGV2
- PSV
- Motorcycle
- Pedal Cycle

Table 31 – SEGWay MCC Survey Locations

SMV IDs	Ref	Site Location
2094 - 2105	1	A12/B1078
2106 - 2111	2	A12/A1094
2112 - 2119	3	A12/Botany Lane/Tinker Brook

7.3.4. Sites 2 and 3 were carried out using standard mounted micro cameras. Site 1 was carried out using ANPR given it encompassed both the B1078 roundabout and A12 slip roads. Comparison of the ANPR plate capture to the manual classified count showed the ANPR was able to record 96% of the vehicles passing through the junctions during the survey period. ATR carried out furnessing at Site 1 to ensure the matched ANPR movements corresponded with the total traffic volumes recorded in the manual classified counts for each arm.

7.4 OTHER SURVEYS: A12 FARNHAM BEND SURVEY

7.4.1. Intelligent Data Ltd were commissioned to survey the impact of the following on journey times on the A12 at Farnham:

- HGVs and other large vehicles meeting at the Farnham Bend
- Turning movements into and out of side roads in the village.

7.4.2. The A12 is at its narrowest point between Wickham Market and Saxmundham at this point, with limited forward visibility and no dedicated central reserve posing difficulties for right turn movements off the A12 into property accesses and side roads.

7.4.3. The survey was carried out on 20 and 21 July 2017 between 0700 and 1900 hrs each day along an approximately 185m section of the road, including this bend. This survey was undertaken in school term time.

7.4.4. The survey was designed to capture the following data:

- Activation of Heavy Vehicle Activated Warning Signs at Farnham Leisure (eastbound) and north of Street Farm (southbound)
- Queue lengths and the cause of them
- Journey times

7.4.5. The data also enabled the classification of traffic volumes by vehicle type and turning movement to be captured although this was not the aim of the survey.

7.4.6. The survey was conducted by video at the following count locations. This included a combination of automatic number plate recognition software to measure journey times and calculate turning movements, and cameras to enable qualitative review of queue lengths and assessment of when Vehicle Activated Warning Signs on the approach to the bend were triggered and when they should have been if not.

Figure 19 - Farnham Bend Survey Locations

7.4.7. Data was processed and cleaned by Intelligent Data before further analysis by Jacobs. This included the removal of outliers from the ANPR journey times by Intelligent Data. The initial Standard Deviation had been heavily influenced by outliers, due to vehicles parking to access local businesses. It was considered appropriate to set the maximum journey time to 3 minutes to remove these.

A12 FARNHAM BEND SURVEY RESULTS

7.4.8. The survey was successfully completed on 20 July 2017. On the 21 July 2017 the ANPR camera failed resulting in only a partial sample of data (i.e. no journey times or counts). The decision was taken to not resurvey the data.

7.4.9. The following provides a summary of the results by type of data.

ACTIVATION OF VMS

7.4.10. Table 32 and Table 33 show the number of activation events at both locations across the survey days.

Table 32 - Activation of VMS at Farnham Leisure (Eastbound)

VMS Activation	20 July	21 July
Events where the VMS was activated	340	308
Events where the VMS failed to activate	69	44

Table 33 - Activation of VMS north of Street Farm (Southbound)

VMS Activation	20 July	21 July
Events where the VMS was activated	192	233
Events where the VMS failed to activate	114	105

7.4.11. These results show that the number of events that the VMS should be activated is similar in each direction, although the southbound sign was less likely to identify a large vehicle.

QUEUES

7.4.12. The results of the survey indicate that the majority of the queues in the area occur during morning and evening peak period, when more motorists are on the road, with a smaller peak around lunchtime.

7.4.13. Figure 20 displays the maximum queue lengths observed across both directions on the 20 July 2017.

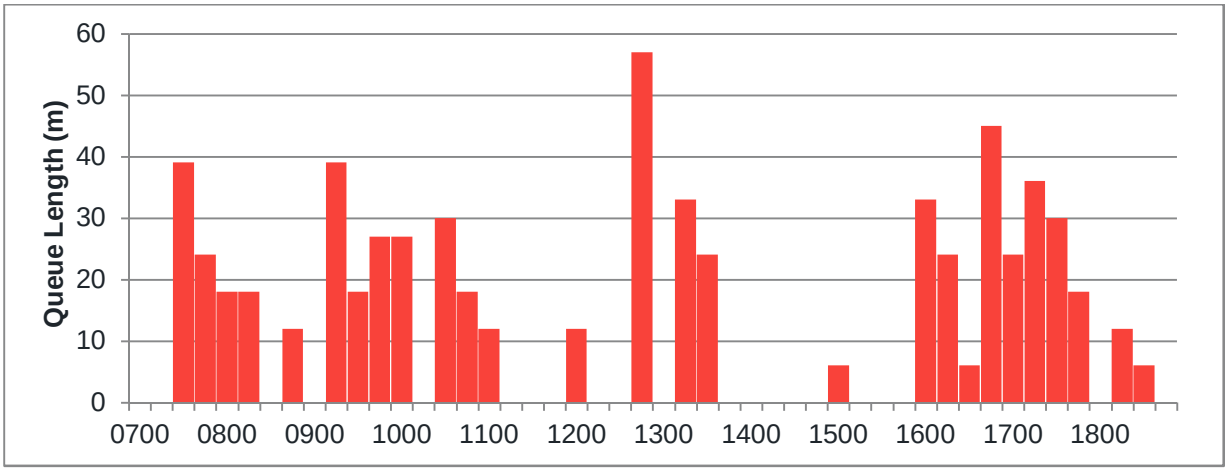


Figure 20 - Maximum queue length by 15 minute period northbound and southbound, 20 July 2017

7.4.14. The survey also revealed that the majority of queueing at the Farnham bend is due to vehicles turning in or out of the small side road, as displayed in Table 34. For example, on 20 July 2017 in the northbound direction only 3 out of 44 instances of queueing involved two large vehicles meeting, whilst 38 instances were the result of cars turning from the A12 into an unnamed road on the junction.

Table 34 - Causes of northbound queuing at the Farnham bend, 20 July 2017

Cause of queue	Count of queue instances
Cars Turning from A12 into Unnamed Road	38
Cars Turning from Unnamed Road into A12	3
Two Large Vehicles Meeting on A12	3
Grand Total	44

7.4.15. Table 35 displays the longest individual queue lengths observed by direction on each day of the survey at the Farnham bend. It is of note that the longest northbound queues observed on the 20 and 21 July were both the result of two large vehicles meeting along the A12.

Table 35 - Longest queues surveyed at the Farnham bend

Survey day	Direction	Max queue length (m)	Cause of max queue
20 July 17	A1 (Northbound)	57	Two Large Vehicles Meeting on A12
	A2 (Southbound)	45	Stopped Due to Emergency Vehicle
21 July 17	A1 (Northbound)	99	Two Large Vehicles Meeting on A12
	A2 (Southbound)	84	Cars Turning from A12 into Unnamed Road

7.4.16. Figure 21 displays the northbound minimum, maximum and average journey speeds throughout the day along the 185 metre section of the A12 surveyed, which includes the Farnham bend. The data indicates that the lowest minimum speeds in the northbound direction along this section were recorded during the AM peak period. The minimum, maximum and average speeds along this section appeared to remain fairly consistent for the remainder of the day.

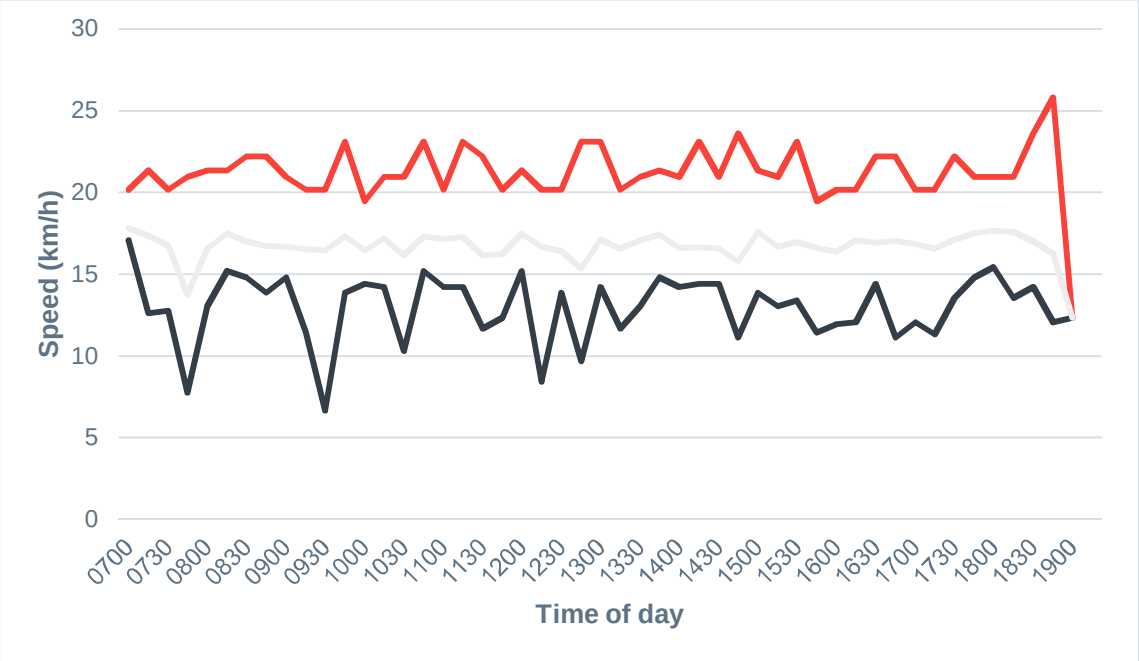


Figure 21 - A12 northbound ANPR trip speed survey results, 20 July 2017

ANNUAL AVERAGE DAILY TRAFFIC FLOWS

7.4.17. A 12 hour manual classified count was collected at the junction of the A12 and A1094 on 18 May 2017. This has enabled the calculation of Annual Average Daily Traffic flows by Jacobs through the following calculation:

12 Hour Flow x E-Factor (1.15) x M-Factor for May with default Seasonality Index of 1.1 (352.3/365)

7.4.18. In 2017, the Annual Average Daily Traffic (AADT) flow on the A12 south of this junction was 16,600. These flows are outside the recommended opening year flow range of up to 13,000 vehicles AADT for a single carriageway road, as stipulated by the Design Manual for Roads and Bridges. The AADT on the A1094 towards Aldeburgh at this location was 7,400.

7.4.19. Furthermore, this hides some of the seasonal variation in traffic flows that promotes added stress during the summer months, which we now discuss.

SEASONAL VARIATION IN TRAFFIC FLOWS

7.4.20. A full year of data from 2016 for Suffolk County Council's automatic traffic count monitoring site 9141 at Farnham has been analysed by Jacobs to understand the seasonal and diurnal variation in traffic flows on the A12. Its location is shown on the following map Figure 22.

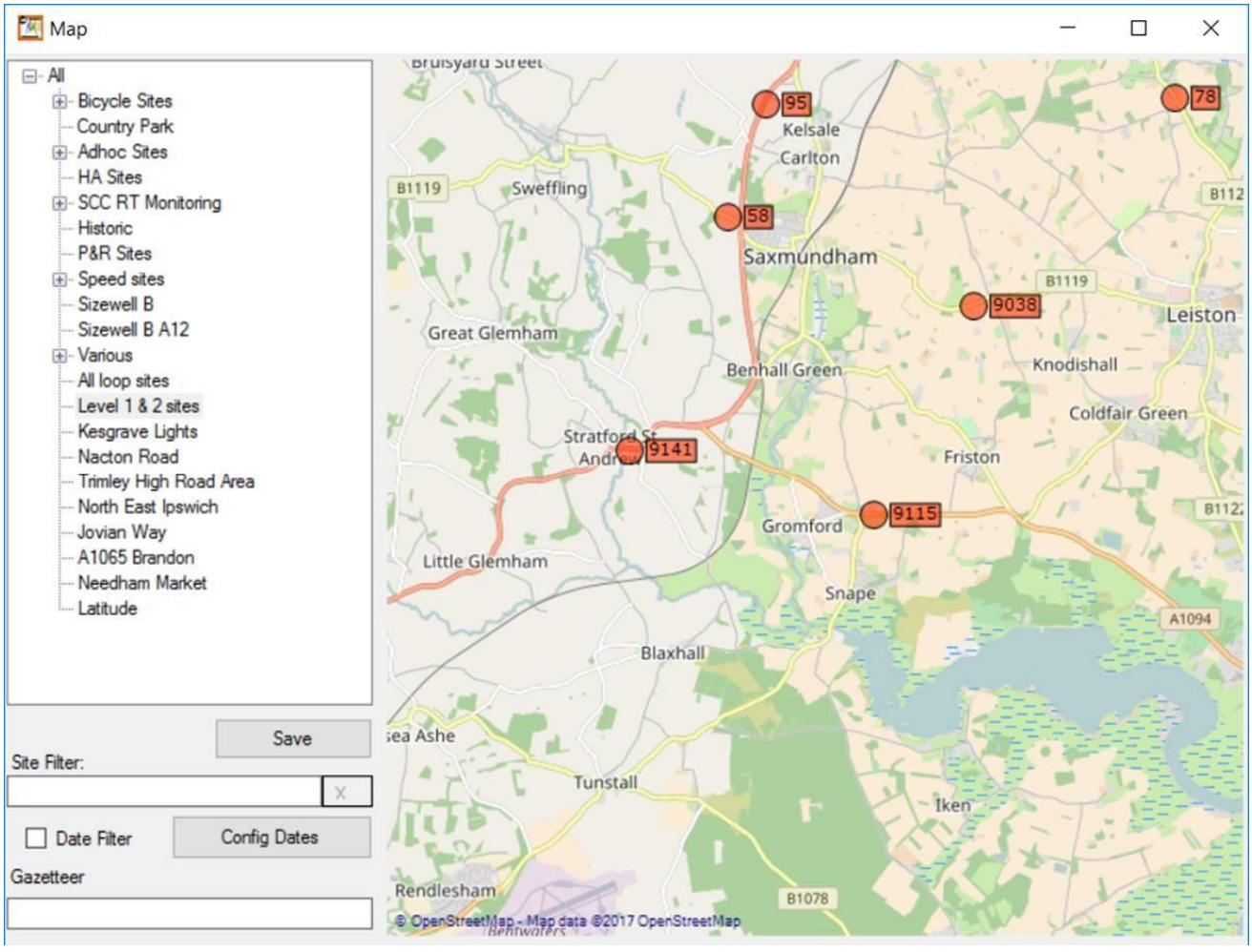


Figure 22 - Location of Suffolk County Council Traffic Count Monitoring Site 9141

7.4.21. The seasonal variation in traffic flows is presented in Figure 23 between January and August on the A12 is presented below. This indicates that there is a significant increase in traffic using the road in summer on all days of the week. This increase is more pronounced from Friday to Sunday, indicating that tourism plays a significant role in exacerbating the potential for traffic problems during summer weekends.

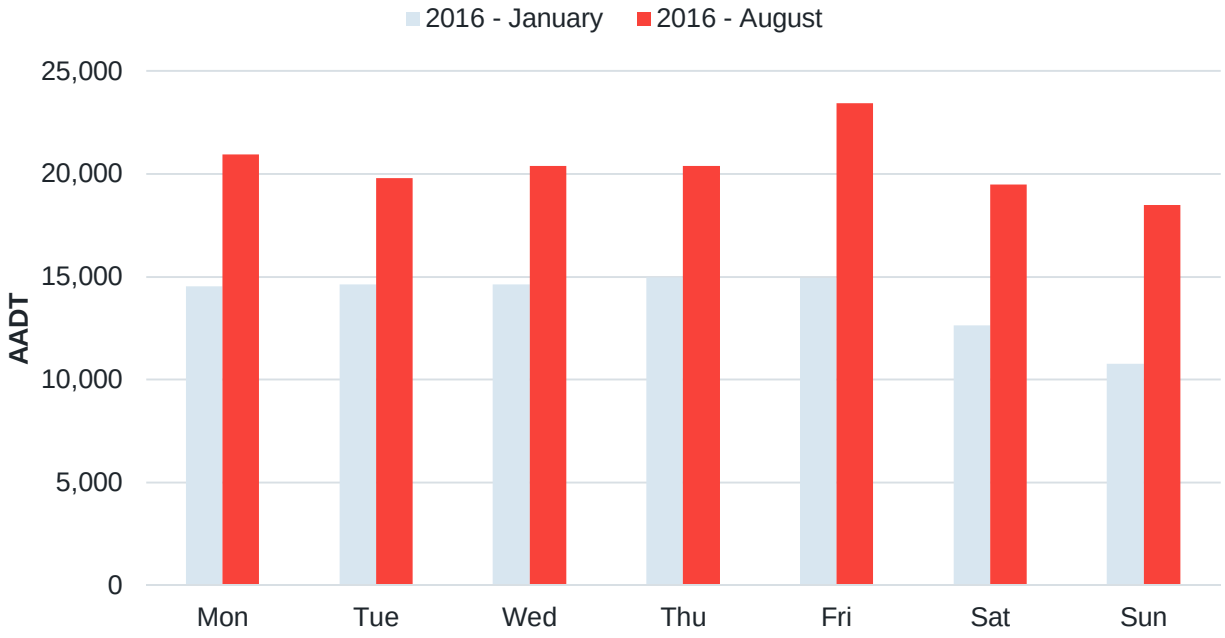


Figure 23 - Seasonal differences in demand for vehicles using the A12 at Site 9141, Farnham. Source SCC, 2016

7.4.22. Figure 24 and Figure 25 shows average flows by direction at the same location for 12 hours 0700-1900 on Saturdays and Sundays respectively by month in 2016. On Saturdays, northbound flows tend to be higher than the southbound direction in most months, with a more marked difference during the summer months. The reverse situation is found on Sundays.

7.4.23. Figure 24 and Figure 25 are consistent with a trend for weekend leisure trips in Suffolk and Norfolk during the summer months.

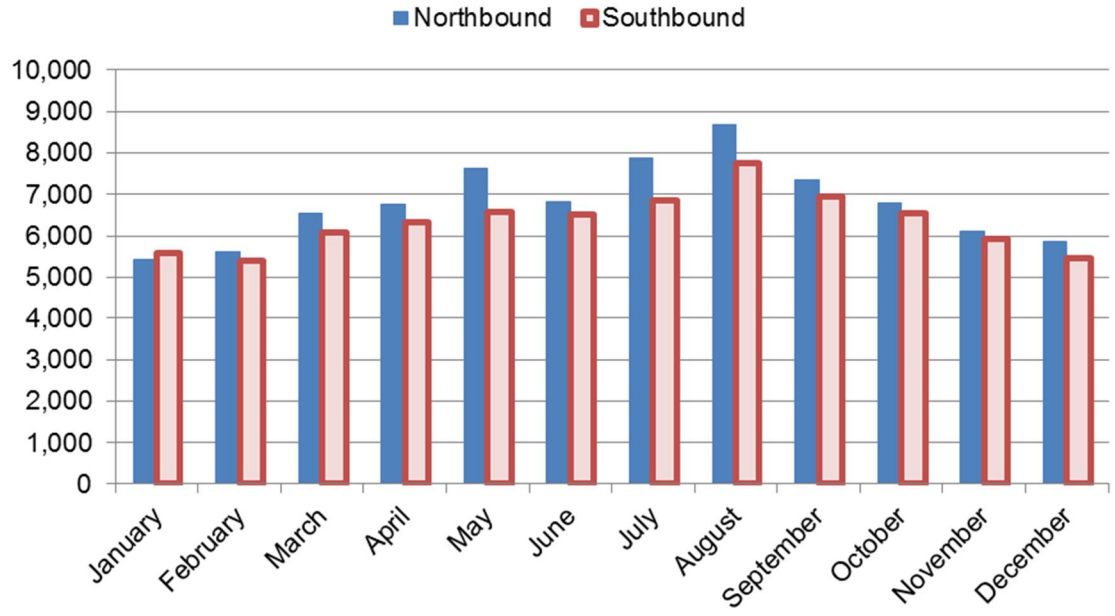


Figure 24 - Monthly average flows on A12 at Site 9141, Farnham, Saturdays 0700-1900. Source: SCC, 2016

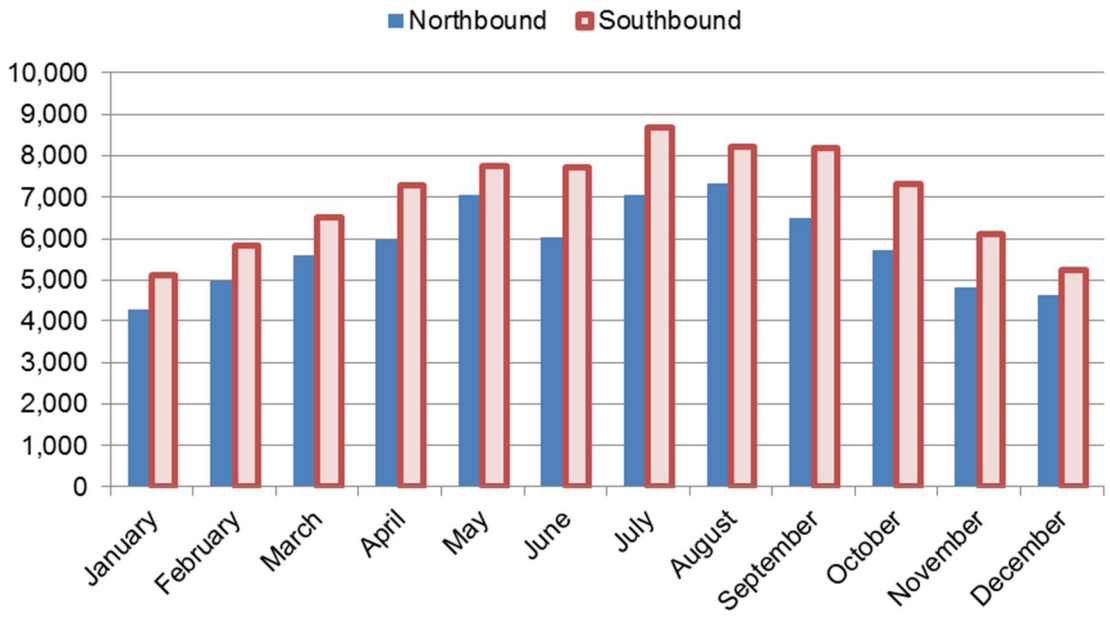


Figure 25 - Monthly average flows on A12 at Site 9141, Farnham, Sundays 0700-1900. Source: SCC, 2016

7.4.24. Figure 26 and Table 36 compare the average 12-hour flows at the same location for weekdays, Saturday, Sundays and Bank Holidays by quarterly period in 2016. The greatest average flows are observed during the summer months between July and September. The difference is most marked for weekends and bank holidays – flows on Sundays during the summer months are 44% greater than on Sundays during winter. During the second and third quarters of the year, bank holiday flows exceed the average weekday flows.

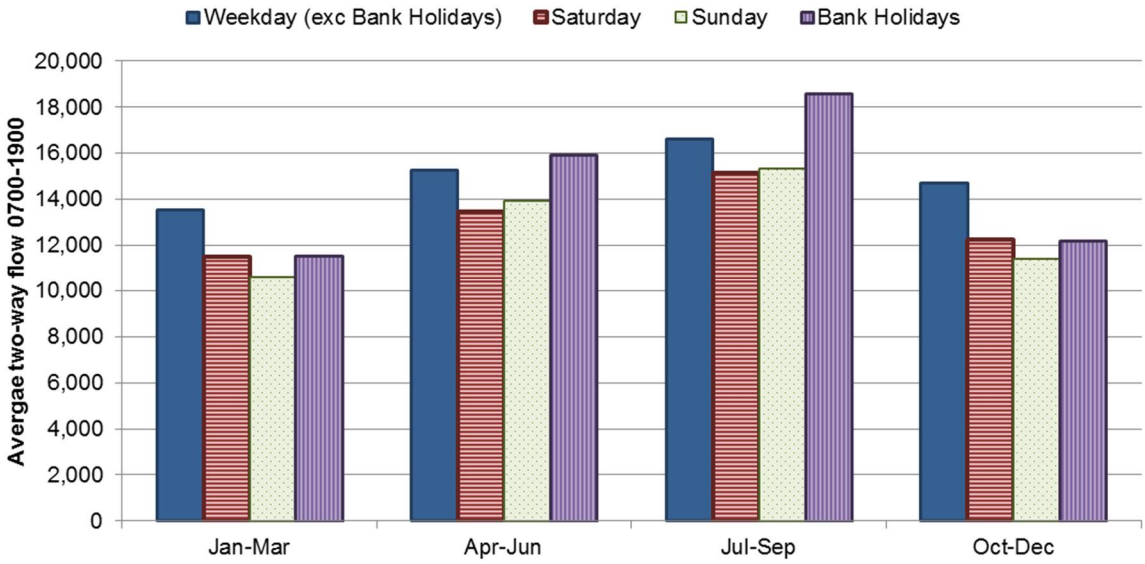


Figure 26 - Quarterly Average 12 Hour Flows 0700-1900 Weekdays, Weekend and Bank Holidays at Site 9141, Farnham. Source: SCC, 2016

Table 36 - Quarterly Average 12 hour flows 0700-1900 weekdays, weekend and bank holidays at Site 9141, Farnham. Source: SCC, 2016

Quarter 2016	Weekday (exc Bank Holidays)	Saturday	Sunday	Bank Holidays
Jan-Mar	13,600	11,500	10,600	11,500
Apr-Jun	15,300	13,500	13,900	15,900
Jul-Sep	16,600	15,100	15,300	18,600
Oct-Dec	14,700	12,300	11,400	12,200
Increase Jul-Sep/ Jan-Mar	23%	32%	44%	61%

7.4.25. Annual Average Daily Traffic Flows on the A12 north of Farnham village is 16,600 vehicles. This however hides a significant variation in flow over the course of the year.

7.4.26. Traffic flow patterns on the A12 in the study area are representative of a road that plays a significant role in the region's tourism economy:

- Greatest observed traffic flows are experienced in the summer months
- Summer average weekend traffic flows are higher than average weekday flows from October to March
- Higher northbound Saturday flows are balanced by higher southbound Sunday flows reflective of a significant influx of weekend tourism related traffic from London and the South East to the region.

HOURLY VARIATION IN TRAFFIC FLOW BY DAY

7.4.27. Figure 27 displays the times of peak demand on the section of the A12 under study, both on a regular weekday and across the weekend throughout the year. The data shows that Friday evening is the time of peak demand on the A12, however other notable peaks have been recorded on Saturday/Sunday mornings and Sunday afternoons/evenings. The Friday afternoon peak is likely due to the combined factors of commuters travelling home and tourists travelling to the district for the weekend, even outside of spring and summer.

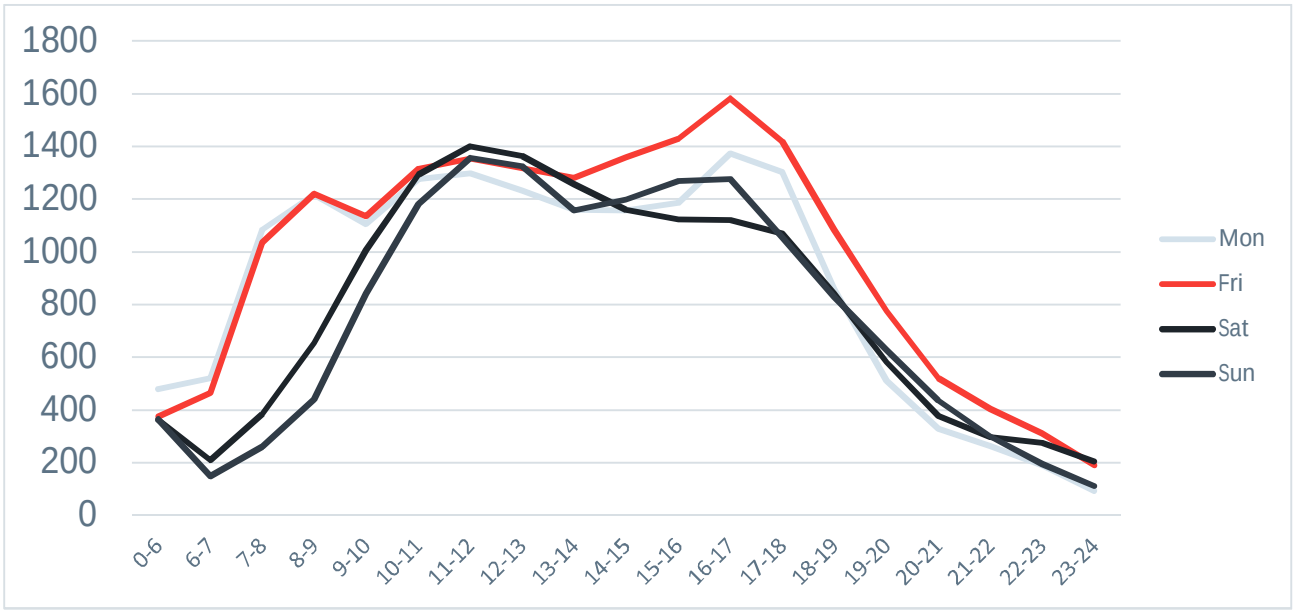


Figure 27 - Hourly differences in demand for vehicles using the A12 across the week at Site 9141, Farnham. Source: SCC, 2016

7.4.28. From a tourism perspective, there is the potential for the existing road capacity on the A12 and associated congestion during the peak summer months to restrict access (and worsen traveller perception of their ability to do so) to regional tourist destinations and seasonal events such as festivals. This may also result in journey

suppression due to a lack of traveller confidence in the network and act as a disincentive to repeat journeys. It is possible that both these factors may be affecting investment in the regional tourist economy, restricting growth opportunities.

AM AND PM PEAK HOUR FLOWS

7.4.29. It shows the average two-way flows during the highway weekday AM peak hour (the maximum of the three hours between 0700 and 1000) and the PM (the maximum of the two hours between 1600 and 1800) peak hour on the A12 in Farnham for each month in 2016. The weekday PM peak hour two-way flow is consistently greater than the weekday AM peak hour flow throughout the year. There is also a seasonal trend with the highest flows observed during the summer months July to September.

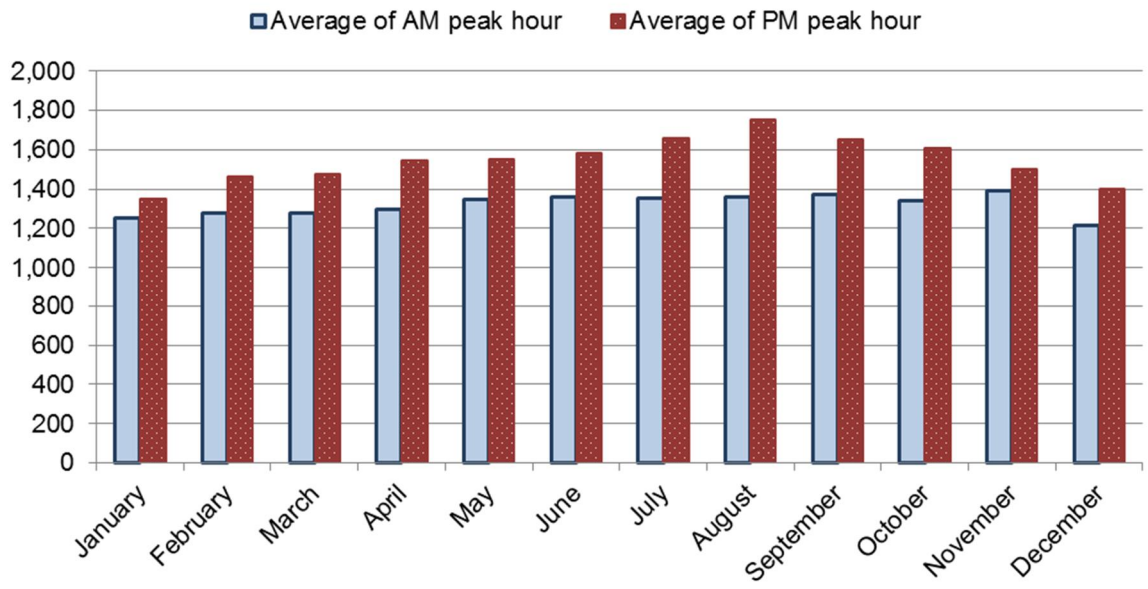


Figure 28 - Average two-way flows on A12 at Site 9141, Farnham, weekday AM and PM peak hours. Source: SCC 2016

7.4.30. Evening peak flows are higher than morning peak flows reflecting the dual role that the road plays in terms of the commuter and visitor economy. This difference is most pronounced in the summer.

8 2016 / 2017 IPSWICH LOCAL VALIDATION COUNTS

8.1 INTRODUCTION

8.1.1. WSP has commissioned additional surveys in addition to those outlined in previous sections to support the Upper Orwell Crossing Development Consent Order (DCO) modelling. The data obtained from these surveys has been used to improve the local calibration and validation of the SCTM in the vicinity of the Upper Orwell Crossing scheme and to inform any subsequent traffic forecasting and economic assessment work.

8.1.2. These surveys were commissioned to ensure there is a comprehensive coverage of data in Ipswich to aid model validation and calibration. Given there were significant roadworks which impacted on the 2015 traffic surveys used for The Upper Orwell Crossings OBC it is intended the 2017 traffic surveys in Ipswich will supersede the majority of the 2015 data. 2015 traffic data will only be used in locations where it is key to the formation of screenlines within Ipswich ad would not have been affected by the roadworks.

8.1.3. Table 37 summarises the 2017 traffic data which was collected in Ipswich. An extensive array of ATC data was collected mainly during a two week survey period between Wednesday 10th May and Thursday 25th May 2017, this ensured traffic data was collected for a neutral time period, avoiding the school half-term week which was during week beginning Monday 29th May 2017. Table 37 also shows there was an MCTC which was carried out for 7 days between 5th to 12th December 2016

Table 37 - Summary of Ipswich Local Validation Surveys Commissioned

Survey Type	Total number of sites	Date undertaken
Automatic Traffic Counts (ATCs)	138	Main survey period: 10th May 2017 to 25th May 2017
1 day Manual Classified Turning Counts (MCTCs)	4	23rd May 2017
7 day Manual Classified Turning Counts (MCTCs)	1	5th to 12th December 2016

8.1.4. Specific ATCs had to be re-laid due to the being damaged or not collecting data correctly during the May 2017 survey period. This includes the following ATCs described in Table 39.

Table 38 – Summary of ATCs sites re-laid in June 2017

Site ID	Site Description	Date of survey data
062B	Fonnereau Road	May 2017 & 6th June 2017 to 19th June 2017
072B	Christchurch St, btwn Cobbold St and Cemetery Rd	6th June 2017 to 19th June 2017
85	The Strand	May 2017 & 6th June 2017 to 22nd June 2017
108A / 108B	A1214	May 2017 & 6th June 2017 to 22nd June 2017
112	Dale Hall Lane, north of Valley Rd	May 2017 & 6th June 2017 to 19th June 2017
124	Duke Street, South of Pownhall Road	May 2017 & 6th June 2017 to 19th June 2017

8.1.5. Count balancing has been undertaken surveys along the A14 (SMV IDs 1811 – 1850), the details of which are discussed in the SCTM LMVR (November 2017).

8.2 IPSWICH 2017 ATC SURVEYS

8.2.1. Figure 29 shows the extent of the 2017 ATCs collected across Ipswich

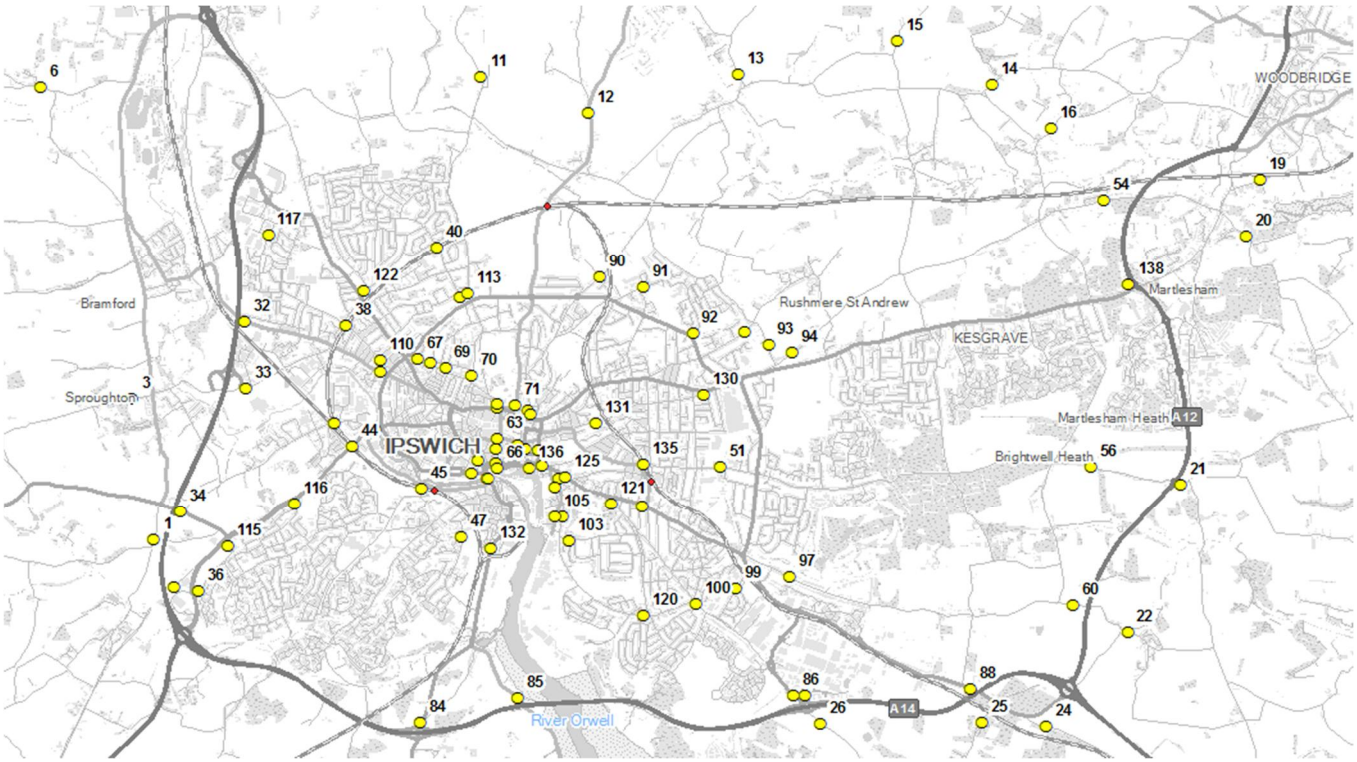


Figure 29 - Ipswich Local Validation ATC Surveys 2017

8.2.2. Table 39 describes the location of each of the 2017 Ipswich ATCs according to their SMV ID.

Table 39 - Ipswich Local Validation ATC Surveys 2017

SMV IDs	Ref	Site Location
2120 - 2121	1	Saw Hill, North of Pigeons Lane
2122 - 2123	3	Burstall Lane, West of B1113
2124 - 2125	6	Somersham Road, East of The Beeches
2126 - 2127	11	Henley Road
2128 - 2129	12	Westerfield Road
2130 - 2131	13	Clopton Road
2132 - 2133	14	Unnamed Road[30M]Btwn Holly Lane And Grundisburgh Road
2134 - 2135	15	Ipswich Road[60M]North Of Culpho
2136 - 2137	16	Lodge Road[30M]East Of Manor House Road
2138 - 2138	19	Sandy Lane[60M]East Of Top Street
2140 - 2141	20	School Lane[60M]East Of Viking Heights
2142 - 2143	21	14139-021 Suffolk. Newbourne Road, East of A12
2144 - 2145	22	14139-022 Suffolk. Main Road, East of Road Connects Seven Hills

SMV IDs	Ref	Site Location
2146 - 2147	24	14139-024 Suffolk. Felixstowe Road, East of A1156
2148 - 2149	25	14139-025 Suffolk. The Street, South of Felixstowe Road
2150 - 2151	26	14139-026 Suffolk. Nacton Road, South of A14.
2152 - 2153	32	14139-032 Suffolk. B1067 East of A14
2154 - 2155	33	14139-033 Suffolk. Sproughton Road, East of A14 West of Farthing Road
2156 - 2157	34	14139-034 Suffolk. A1071 West of Hadleigh Road
2158 - 2159	36	14139-036 Suffolk. Scrivener Drive, East of A1214
2160 - 2161	38	14139-038 Suffolk. Bramford Lane, East of Cromer Road
2162 - 2163	40	Dale Hale Lane, South Of Larchcroft Road
2164 - 2165	43	Hadleigh Road, West Of Dunlop Road [30M]
2166 - 2167	44	A1214 East Dickens Road
2168 - 2169	45	Ancaster Rd [30M]
2170 - 2171	47	Maidenhead Approach [30M]
2172 - 2173	48	Rushmere Road West Of Humber Douchy Lane [30M]
2174 - 2175	51	Foxhall Road, W Of Chilton Road [30]
2176 - 2177	54	Martlesham Road[30M]West Of A12
2178 - 2179	56	Foxhall Road[60M]West Of A12
2180 - 2181	60	Bucklesham Road West Of A12 [60M]
2182 - 2183	62A	Crown Street [30m]
2184 - 2185	62B	Fonnereau Road [30m]
2186 - 2187	63	Dogs Head St [20m]
2188 - 2189	64	Turret Lane [20m]
2190 - 2191	65	A1022 [30m]
2192 - 2193	66	College St East Of Foundary Lane [30m]
2194 - 2195	67	Graham Road, North of Anglesea road [30m]
2196 - 2197	68	Paget Road, North of Anglesea Road [30m]
2198 - 2199	69	Warrington Road, N of Anglesea Road [30m]
2200 - 2201	70	Henley Road [30m]
2202 - 2203	71	Bolton Road
2204	72 A	Cobbald St
2205 - 2206	84	A137
2207 - 2208	85	The Strand
2209 - 2210	86	Nacton Road

SMV IDs	Ref	Site Location
2211 - 2212	87 A	The Havens
2213 - 2214	88	Felixstowe Road
2215 - 2216	90	Tuddenham Road
2217 - 2218	91	Sidegate Lane
2219 - 2220	92	Renfrew road
2221 - 2222	93	Humber Douchy Lane
2223 - 2224	94	East of Humber Douchy Road
2225 - 2226	97	Bucklesham Road
2227 - 2228	99	Lindbergh Road, North of Campbell Road
2229 - 2230	100	Nacton Road, South of Landseer Road
2231 - 2232	103	Cliff Lane, East of Landseer Road
2233 - 2234	104	Holywell Road, South of Patteson Road
2235 - 2236	105	Cliff Road, South of Patterson Road
2237 - 2238	108a	Between Hadham Road and Yarmouth Road
2239 - 2240	109	Between Beaconsfield Road and Yarmouth Road
2241 - 2242	110	Bramford Lane, Between All Saints and Brookshall Road
2243 - 2244	111	Norwich road, Between Broom Hill and Westwood
2245 - 2246	112	Dale Hall Lane, North of Valley Road
2247 - 2248	113	Henley Road, N of Valley Road
2249 - 2250	114	Pownall Road
2251 - 2252	115	Scrivener Drive
2253 - 2254	116	Robin Drive
2255 - 2256	117	Lovetofts Drive
2257 - 2258	118	Felixstowe Road, West Of Derby Road
2259 - 2260	120	Landseer Road West Of Clapgate Lane
2261 - 2262	121	Nacton Road, E Of Felixstowe Road Junction
2263 - 2264	122	Ashcroft Road, E Of Norwich Road
2265 - 2266	123	Grimwade St North Of Star Lane
2267 - 2268	124	Duke St, South Of Pownhall Road
2269 - 2270	125	Fore Hamlet, East Of Pownhall Road
2271 - 2272	126a	Bridge Street
2273 - 2274	127	Grey Friars Road
2275 - 2276	128	Grafton Way

SMV IDs	Ref	Site Location
2277	129	14139-129 Suffolk. Bond St, North of Star Lane
2278 - 2279	130	14139-130 Suffolk. Spring Road, West of Goring Road
2280 - 2281	131	14139-131 Suffolk. Spring Road, West of Railway Line
2282 - 2284	132	14139-132 Suffolk. Wherstead Road
2284 - 2285	133	14139-133 Suffolk. Fore Street, East of Grimwade St
2286 - 2287	134	14139-134 Suffolk. Fore Street, North of Lower Orwell St
2288 - 2289	135	14139-135 Suffolk. Foxhall Road, Near Railway Line
2290	136	14112-136 Suffolk. Wherry Quay. Eastbound
2291 - 2292	137	London Road
2293 - 2294	138	Martlesham Park And Ride
2295 - 2996	72B	Christchurch Street

8.2.3. Checks were made for unusual observations in the Ipswich 2017 ATC data. This analysis was carried out by graphing the hourly variation for each day data was collected. This analysis highlighted unusual observations and missing data which needed to be removed to ensure they did not have skew the average traffic flow calculated for each site.

8.2.4. Table 40 shows the ATC locations at which observations were removed during the data cleaning process, but for which there were still a minimum of two weeks worth of Monday to Thursday observations (i.e. 8 observations).

Table 40 - Ipswich Local Validation ATC Surveys 2017 sites with excluded data with > 8 observations

SMV IDs	Ref	Site Location	Mon-Thu – Obs Removed (Days)	Mon-Thu – Obs Removed (Remaining)
2124 - 2125	6	Somersham Road, East of The Beeches	0.5	8.5
2152 - 2153	32	14139-032 Suffolk. B1067 East of A14	1	8
2170 - 2171	47	Maidenhead Approach [30M]	1	8
2182 - 2183	62A	Crown Street [30m]	1	8
2186 - 2187	63	Dogs Head St [20m]	1	8
2188 - 2189	64	Turret Lane [20m]	1	8
2190 - 2191	65	A1022 [30m]	1	8
2192 - 2193	66	College St East Of Foundary Lane [30m]	1	8
2200 - 2201	70	Henley Road [30m]	1	8
2202 - 2203	71	Bolton Road	1	8
2204	72 A	Cobbald St	1	8
2209 - 2210	86	Nacton Road	0.5	8.5

SMV IDs	Ref	Site Location	Mon-Thu – Obs Removed (Days)	Mon-Thu – Obs Removed (Remaining)
2217 - 2218	91	Sidegate Lane	0.5	8.5
2261 - 2262	121	Nacton Road, E Of Felixstowe Road Junction	0.5	8.5
2265 - 2266	123	Grimwade St North Of Star Lane	0.5	8.5
2271 - 2272	126a	Bridge Street	0.5	8.5
2273 - 2274	127	Grey Friars Road	1	8
2275 - 2276	128	Grafton Way	1	8
2284 - 2285	133	14139-133 Suffolk. Fore Street, East of Grimwade St	0.5	8.5
2286 - 2287	134	14139-134 Suffolk. Fore Street, North of Lower Orwell St	0.5	8.5

8.2.5. Table 41 shows the ATC locations at which a greater number of observations were removed during the data cleaning process. At the locations detailed below, the number of observations falls below the minimum of two weeks worth of data, i.e. 8 Monday-Thursday observations. This is not considered a significant issue as this affects a small number of sites, and those that are affected still have several days worth of data from which to calculate average traffic flows.

Table 41 - Ipswich Local Validation ATC Surveys 2017 sites with excluded data with < 8 observations

SMV IDs	Ref	Site Location	Mon-Thu – Obs Removed (Days)	Mon-Thu – Obs Removed (Remaining)
2184 - 2185	62B	Fonnereau Road [30m]	4	5
2207 - 2208	85	The Strand	5	5
2237 - 2238	108a	Between Hadham Road and Yarmouth Road	4	5
2241 - 2242	110	Bramford Lane, Between All Saints and Brookshall Road	1.5	7.5
2245 - 2246	112	Dale Hall Lane, North of Valley Road	1.5	7.5
2267 - 2268	124	Duke St, South Of Pownhall Road	3	6

8.2.6. Analysis of the rolling peak hour flows within the 2017 Ipswich ATC data reveals the following time periods represent the peak in traffic, based on adding all flows from the ATC sites together:

- AM peak – 0745 to 0845
  - 1% higher than the 0800-0900 time period
- Inter peak – 1500 to 1600
- PM peak – 1630 to 1730
  - 0.5% higher than the 1700-1800 time period

8.2.7. The differences between the modelled time periods and peak hour found in the 2017 Ipswich ATC data is shown to be negligible, therefore the modelled time periods used in the SCTM are shown to be appropriate to appraise the TUOC scheme.

8.2.8. The same ARX classification system detailed in Table 28 was provided by ATR for the 2017 Ipswich ATC data. As with the SEGWay ATCs, Table 29 represents how the Ipswich 2017 ATC data was summarised from the ARX classifications to the SCTM modelled user classes.

8.3 IPSWICH 2016 / 2017 MCTC SURVEYS

8.3.1. Figure 30 shows the locations of the MCTCs undertaken in 2016 and 2017.

Figure 30 – Ipswich Local Validation 1 day and 7 day MCC Surveys 2017

8.3.2. Table 42 describes the locations of the MCTCs undertaken for a single day in Ipswich in 2017.

Table 42 - Ipswich Local Validation 1 day MCC Surveys 2017

SMV IDs	Ref	Site Location
2297 - 2306	1	Bridge Street/Grafton Way
2307 - 2314	2	Burrell Road/Bridge Street
2315 - 2320	3	Stoke Street/Burrell Road
2321 - 2330	4	Wherstead Road/Hawes Street

8.3.3. Table 43 describes the location of the 7 day MCTC undertaken in 2016 on the A214.

Table 43 - Ipswich Local Validation 7 day MCC Surveys 2016

SMV IDs	Ref	Site Location
1805 - 1810	5	A1214 / Bell Lane

8.4 IPSWICH - SEASONAL VARIATION IN TRAFFIC FLOWS

8.4.1. Analysis has been carried out on the variation in flow across each month in 2016 using data from permanent ATC sites provided by SCC in Ipswich. Data was available for all 12 months in 2016 at the following sites:

- C305 – Bixley Road
- C306 – Felixstowe Road
- C308 – Sproughton Road
- Y151 – London Road
- Y177 – Norwich Road
- Y189 – Valley Road
- Y190 – Park Road
- Y191 – Fonnereau Road
- Y192 – Crown Street
- Y194 – Star Lane
- Y219 – Wherstead Road

8.4.2. Figure 31 shows the variation in combined traffic flow across the 11 ATC locations. This compares the Monday to Thursday average flow, which is used in calibration and validation of the SCTM, to the Monday to Friday, and Saturday to Sunday flow. This comparison highlights the average flow is generally higher when Friday is included as part of the weekday average flow. The weekend flow as expected is shown to be significantly lower than both weekday flow averages.

8.4.3. In terms of variation by month, June and July are shown to have weekday traffic flows above the yearly weekday average dashed line (which is based on the Monday to Friday average). As expected the non-neutral winter months of December, January and February show flow below the average weekday flow. Traffic levels are shown to be at their lowest in August. The analysis shows there is not a substantial variation in traffic flows by month across the year.

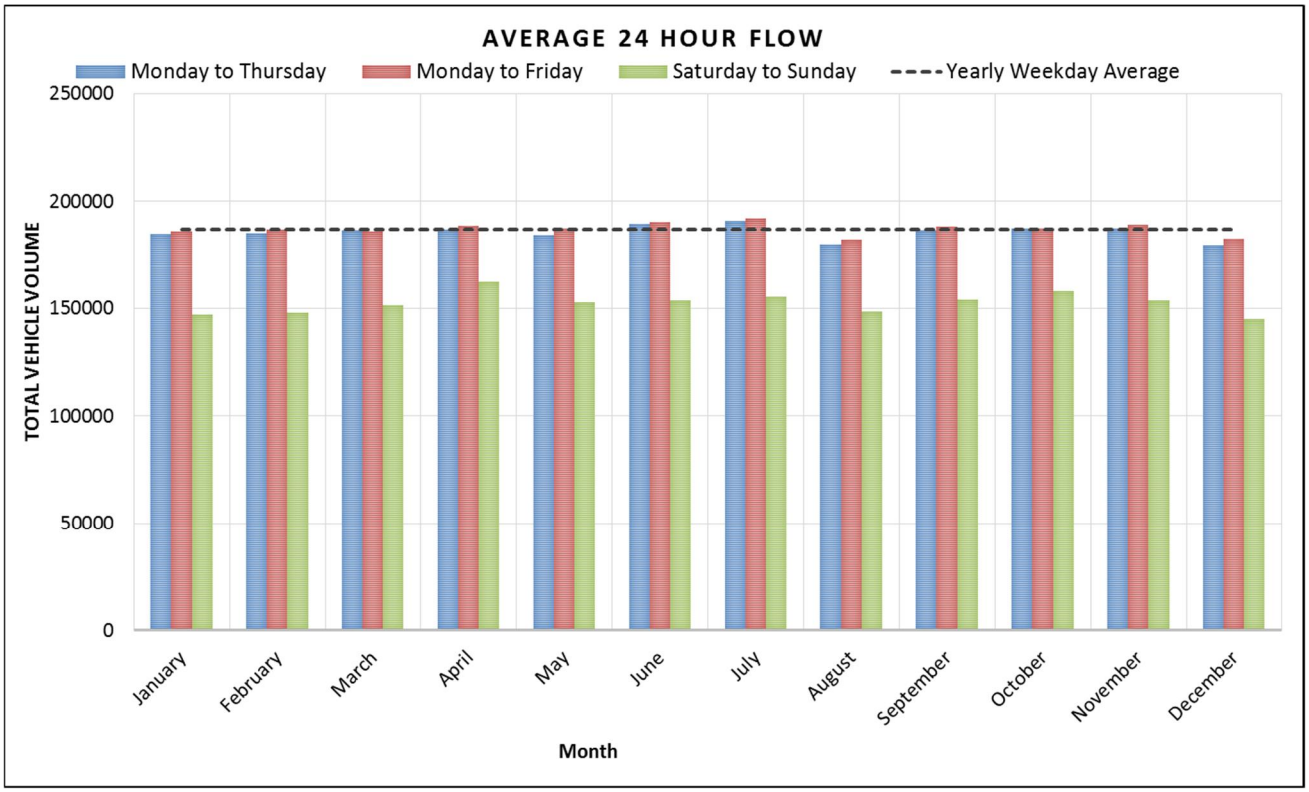


Figure 31 – Ipswich – Monthly variation in average traffic flows

8.4.4. Figure 32 provides a comparison by month of the 24 hour AADT and AAWT by month for 11 ATC sites combined. As expected this shows significantly higher AAWT flows compared to AADT flows due to the

average flow being reduced by the lower weekend flows. April, June, July, September and November are shown to be months when the AADT and AAWT are above the yearly average. August and December are show to have average values significantly below the yearly average.

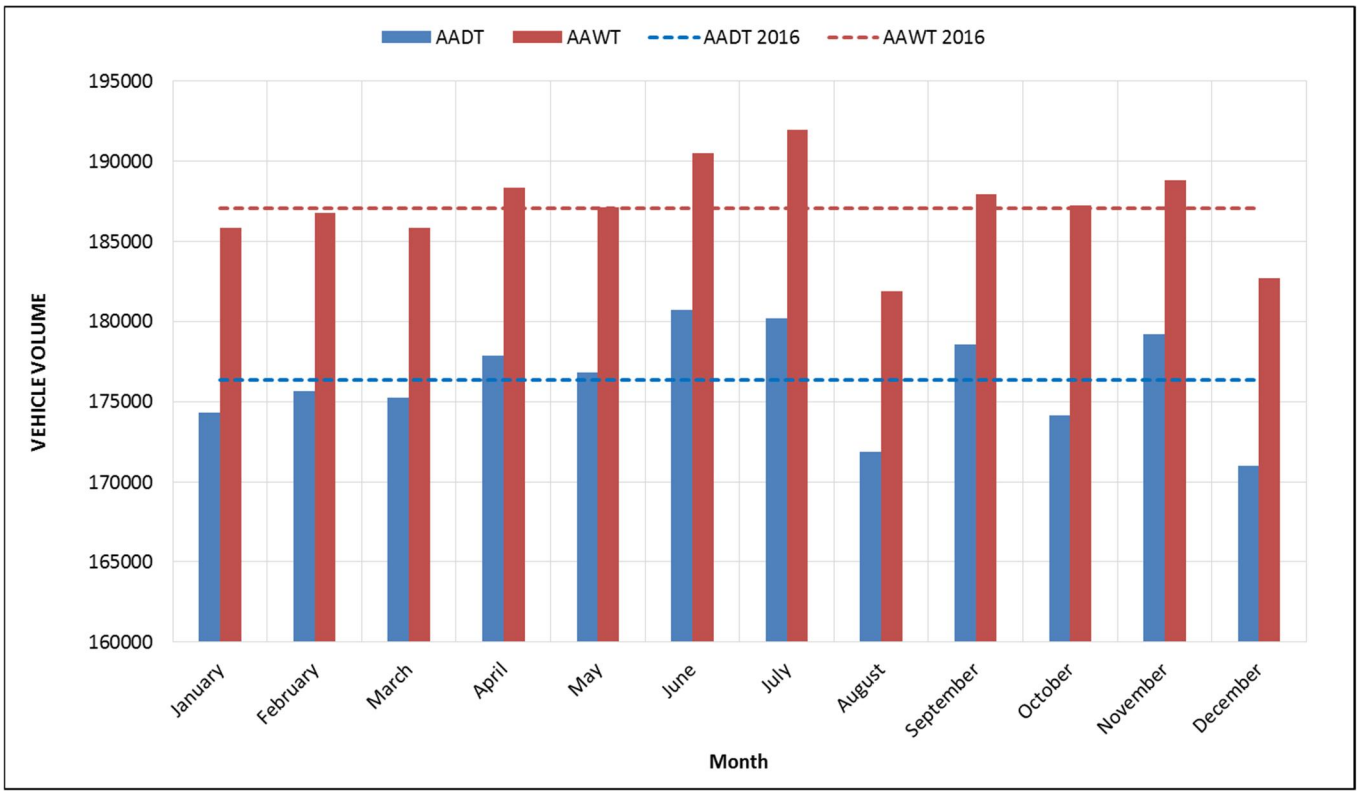


Figure 32 - Ipswich – Monthly variation in AADT & AAWT

8.4.5. The majority of the observed traffic data used to calibration and validated the SCTM in Ipswich is for May 2017. Other traffic data sources in Ipswich cover neutral months throughout the year. May is shown to be a month where the traffic flows closely align to the yearly average in Ipswich. The SCTM has been calibrated and validated based on Monday to Thursday average traffic flows which are shown to be lower than an average which includes Friday flows. This should therefore be considered going forward when claiming benefits associated with The Upper Orwell Crossing, particularly in terms of the annualisation factors.

9 SUMMARY

9.1.1. WSP have been commissioned by Suffolk County Council to upgrade the existing modelling tools available to SCC and develop an integrated county-wide multi-modal model known as the Suffolk County Transport Model (SCTM). The SCTM comprises a SATURN highway assignment model, as well as a public transport and demand model both built in VISUM.

9.1.2. This data collection report details the survey data which has been obtained for validation and calibration of the highway assignment model. Existing data used for the validation of the Lowestoft Traffic Model (LTM) and Ipswich Transport Model (ITM) for the Lake Lothing Third Crossing and Wet Dock Crossing OBCs will be used in the SCTM.

9.1.3. The data detailed in this report has been collected and processed in adherence to the latest WebTAG guidance in unit M1.2 'Data Sources and Surveys' (January 2014).

9.1.4. Intelligent Data were commissioned by WSP to carry out 227 ATCs, 34 MCTCs at key junctions and a turning count survey in Newmarket town centre using ANPR cameras. This additional data was required in order to build a county-wide model.

9.1.5. Some data loss occurred at ATC sites but this is not considered a significant issue and the data collected will be sufficient for the model build process. ATC data was cleaned to ensure there were no outliers affecting the average flows calculated.

9.1.6. Traffic count data has also been obtained from Highways England from the TRADS database for the A14, A12, A11 and A47. The majority of this data was averaged for April 2016 overlapping with the surveys undertaken by Intelligent Data specifically commissioned for the SCTM. For instances where April 2016 data was not available, March 2015 was obtained as an alternative, at one site May 2016 data was obtained.

9.1.7. Trafficmaster GPS data has been obtained from Suffolk County Council covering September 2015 to August 2016 and will be used for journey time validation. This data was averaged by peak hour for neutral months. Analysis of the number of observations available for each route highlighted instances where the sample was below the minimum requirement of 12 observations outlined in WebTAG. In total 78 journey time routes have been validated in the SCTM, 76 in two directions and 2 in one direction. Checks of the average speeds in the journey time data highlight areas of congestion which are shown to be logical and correspond with known delays during peak periods

9.1.8. Additional data collection has been undertaken in 2016 and 2017 within Lowestoft to supplement the 2015 traffic data used for the Lake Lothing Third Crossing OBC. The traffic data within Lowestoft predominantly covers July which seasonality analysis highlights is a month when traffic flows are above the yearly average traffic flows

9.1.9. Data collection has been undertaken around the A12 in east Suffolk in order to support the OBC for the Suffolk Energy Gateway Scheme, A comprehensive series of ATCs have been collected along with three MCTCs. A survey of Farnham Bend on the A12 which the scheme looks to alleviate highlights the issue of HGVs meeting at this pinchpoint does not cause delays which have long lasting durations. Analysis of the seasonality and variation in traffic flows highlight significantly higher flows on the A12 on Fridays. Saturday traffic is shown to be comparable to average weekday traffic, with traffic levels peaking in August. Given the SCTM models a weekday average based on Monday to Thursdays for a neutral month it should be considered when deriving benefits for the SEGWay scheme that the highest traffic flows are not captured.

9.1.10. An extensive range of surveys have been undertaken in Ipswich in May 2017 to support the DCO modelling for The Upper Orwell Crossings (TUOC) in Ipswich. This data means the majority of the 2015 data collected to support the TUOC (formerly Wet Dock) OBC has now been superseded.

9.1.11. In combination with the commissioned surveys it is considered there is extensive coverage of suitable traffic data which will provide a basis for building a robust highway model. The data has been checked and cleaned to minimise the impact of outliers and missing data.

Appendix A

SUFFOLK COUNTY COUNCIL ATC

SITES

SMV ID(s)	Ref	Site Location
1615 – 1615	C103	Oulton Road
1617 – 1618	C105	Long Road
1619 – 1620	C106	Victoria Road
1621 – 1622	C107	Peto Way
1623 – 1624	C108	Crestview Drive
1625 – 1626	C109	Millennium Way
1627 - 1628	C110	St. Peters Street
1629 - 1630	C111	Cotmer Road, Oulton Broad
1631 - 1632	C112	Ashburnham Way, Carlton Colville
1633 - 1634	C113	Lowestoft Road, Carlton Colville
1635 - 1636	C116	Tom Crisp Way
1637 - 1638	C200	Compiegne Way
1639 - 1640	C201	Out Westgate
1641 - 1642	C203	Eastgate Street
1643 - 1644	C303	Woodbridge Road
1645 - 1646	C304	Foxhall Road
1647 - 1648	C305	Bixley Road
1649 - 1650	C306	Felixstowe Road
1651 - 1652	C307	Sproughton Road
1653 - 1654	C308	Nacton Road
1655 - 1656	C501	Melton Hill, Woodbridge
1657 - 1658	C600	Gipping Way
1659 - 1660	M002	A12, Woodbridge
1661 - 1662	M006	Freston Hill,
1663 - 1664	M008	Long Melford Bypass,
1665 - 1666	M010	Sudbury Road, Sicklesmere
1667 - 1668	M012	Tattingstone,
1669 - 1670	M014	Rickinghall/Botesdale Bypass,
1671 - 1672	M024	South of Norton,
1673 - 1674	M026	Brightwell,
1675 - 1676	M036	Otley East of C306,
1677 - 1678	M038	North of Finningham,
1679 - 1680	M043	Kessingland Bypass,
1681 - 1682	M048	Blyburgate

1683 - 1684	M053	Wilford Bridge, Melton
1685 - 1686	M055	North of C366, Swilland
1687 - 1688	M061	Chantry Park
1689 - 1690	M068	Ballingdon Hill
1691 - 1692	M073	South of Bury St Edmunds,
1693 - 1694	M076	South Elveden,
1695 - 1696	M077	Between A11 and A1101, Icklingham
1697 - 1698	M079	Outside Asda Superstore
1699 - 1700	M090	South of Elmswell,
1701 - 1702	P004	Warren Heath
1703 - 1704	P006	South of U4519, Great Finborough
1705 - 1706	Y006	South West of Hopton,
1707 - 1708	Y056	North of B1077, Stuston
1709 - 1710	Y080	South of A12, East Bergholt
1711 - 1712	Y115	East of B1069, Snape
1713 - 1714	Y141	A12, Farnham
1715 - 1716	Y142	A12 Benhall (South of B1121),
1717 - 1718	Y149	A146 Beccles Bypass,
1719 - 1720	Y151	London Road
1721 - 1722	Y154	Loraine Way, Bramford
1723 - 1724	Y159	London Road, Pakefield
1725 - 1726	Y176	East of Blacktiles Lane, Martlesham
1727 - 1728	Y177	Norwich Road
1729 - 1730	Y188	Nacton Road Link
1731 - 1732	Y190	Park Road
1733 - 1734	Y191	Fonnereau Road
1735 - 1736	Y192	Crown Street
1737	Y194	Star Lane
1738 - 1739	Y218	B1115, Stowupland
1740 - 1741	Y219	Wherstead Road
1742 - 1743	Y220	Waldingfield Road

Appendix B

TRADS DATA SUMMARY

Appendix B.1

TRADS DATA LOCATIONS

SMV ID(s)	Area	Site Location
461	A14	A14 MIDAS site at A14/1423A priority 1 on link 106033101
462	A14	A14 MIDAS site at A14/1439A priority 1 on link 106033101
463	A14	A14 MIDAS site at A14/1427A priority 1 on link 106033101
464	A14	A14 MIDAS site at A14/1435A priority 1 on link 106033101
465	A14	A14 MIDAS site at A14/1432A priority 1 on link 106033101
466	A14	A14 MIDAS site at A14/1442J priority 1 on link 106033201
467	A14	A14 MIDAS site at A14/1446L priority 1 on link 106033301
468	A14	A14 TMU Site 6301/1 on link A14 J43 westbound exit
469	A14	A14 TMU Site 6302/1 on link A14 J43 eastbound exit
470	A14	A14 TMU Site 6302/2 on link A14 eastbound within J43
471	A14	A14 MIDAS site at A14/1469L priority 1 on link 106035101
472	A14	A14 MIDAS site at A14/1463J priority 1 on link 106034901
473	A14	A14 TMU Site 6299/2 on link A14 westbound within J44
474	A14	A14 TMU Site 6300/1 on link A14 J44 eastbound exit
475	A14	A14 TMU Site 6300/2 on link A14 eastbound within J44
476	A14	A14 TMU Site 6303/1 on link A14 J42 westbound exit
477	A14	A14 TMU Site 6303/2 on link A14 westbound within J42
478	A14	A14 TMU Site 6304/1 on link A14 J42 eastbound exit
479	A14	A14 TMU Site 6304/2 on link A14 eastbound within J42
480	A14	A14 MIDAS site at A14/1241A priority 1 on link 106026701
481	A14	A14 MIDAS site at A14/1254A priority 1 on link 106031101
482	A14	A14 MIDAS site at A14/1223B priority 1 on link 106027201
483	A14	A14 MIDAS site at A14/1254J priority 1 on link 106026801
484	A14	A14 MIDAS site at A14/1218L priority 1 on link 106027601
485	A14	A14 MIDAS site at A14/1255B priority 1 on link 106026502
486	A14	A14 MIDAS site at A14/1241B priority 1 on link 106027201
487	A14	A14 TMU Site 9942/1 on link A14 J49 eastbound exit
488	A14	A14 TMU Site 9942/2 on link A14 eastbound within J49
489	A14	A14 TMU Site 6295/1 on link A14 J51 westbound exit
490	A14	A14 TMU Site 6296/1 on link A14 J51 eastbound exit
491	A14	A14 MIDAS site at A14/1800A priority 1 on link 106045901
492	A14	A14 MIDAS site at A14/1813B priority 1 on link 106063901
493	A14	A14 MIDAS site at A14/1804J priority 1 on link 106045801
494	A14	A14 MIDAS site at A14/1811L priority 1 on link 106046001

SMV ID(s)	Area	Site Location
495	A14	A14 TMU Site 6293/1 on link A14 J53 westbound exit
496	A14	A14 TMU Site 6293/2 on link A14 westbound within J53
497	A14	A14 TMU Site 6294/1 on link A14 J53 eastbound exit
498	A14	A14 TMU Site 6294/2 on link A14 eastbound within J53
499	A14	A14 MIDAS site at A14/1844A priority 1 on link 106046101
500	A14	A14 MIDAS site at A14/1861B priority 1 on link 106047201
501	A14	A14 MIDAS site at A14/1855L priority 1 on link 121033901
502	A14	A14 MIDAS site at A14/1852J priority 1 on link 121034001
503	A14	A14 TMU Site 6279/1 on link A14 J55 eastbound exit
504	A14	A14 TMU Site 6279/2 on link A14 eastbound within J55
505	A14	A14 TMU Site 6280/1 on link A14 J55 westbound exit
506	A14	A14 TMU Site 6280/2 on link A14 westbound within J55
507	A14	A14 MIDAS site at A14/1908A priority 1 on link 106048001
508	A14	A14 MIDAS site at A14/1913B priority 1 on link 106049501
509	A14	A14 MIDAS site at A14/1963A priority 1 on link 106048301
510	A14	A14 MIDAS site at A14/1957B priority 1 on link 106047801
511	A14	A14 MIDAS site at A14/1973B priority 1 on link 106053001
512	A14	A14 MIDAS site at A14/1977A priority 1 on link 106053101
513	A14	A14 TMU Site 6281/1 on link A14 J56 eastbound exit
514	A14	A14 TMU Site 6281/2 on link A14 eastbound within J56
515	A14	A14 TMU Site 6283/1 on link A14 J57 eastbound exit
516	A14	A14 TMU Site 6283/2 on link A14 eastbound within J57
517	A14	A14 TMU Site 6284/1 on link A14 J57 westbound exit
518	A14	A14 TMU Site 6284/2 on link A14 westbound within J57
519	A14	A14 TMU Site 6285/1 on link A14 J58 eastbound exit
520	A14	A14 TMU Site 6286/1 on link A14 J58 westbound exit
521	A14	A14 TMU Site 6286/2 on link A14 westbound within J58
522	A14	A14 MIDAS site at A14/2040A priority 1 on link 199136001
523	A14	A14 MIDAS site at A14/2057A priority 1 on link 199136001
524	A14	A14 MIDAS site at A14/2068L priority 1 on link 199136101
525	A14	A14 MIDAS site at A14/2060J priority 1 on link 199136301
526	A14	A14 MIDAS site at A14/2070B priority 1 on link 199135901
527	A14	A14 MIDAS site at A14/2087B priority 1 on link 106050701
528	A14	A14 TMU Site 6493/1 on link A14 eastbound between J60 and J61

SMV ID(s)	Area	Site Location
529	A14	A14 MIDAS site at A14/2098A priority 1 on link 106051101
530	A14	A14 MIDAS site at A14/2102B priority 1 on link 106051401
531	A14	A14 MIDAS site at A14/1449B priority 1 on link 106033401
532	A11	A11 TMU Site 6320/1 on link A11 northbound between A134 and A134/A1066
533	A11	A11 TMU Site 6321/1 on link A11 southbound between A134/A1066 and A134
534	A11	A11 TMU Site 6360/1 on link A11 northbound between A1075 and B111
535	A11	A11 TMU Site 6499/1 on link A11 southbound between B111 and A1075
536	A12	A12 TMU Site 6275/1 on link A12 southbound exit for A120 near Colchester (east)
537	A12	A12 TMU Site 6275/2 on link A12 southbound within the A120 near Colchester (east) junction
538	A12	A12 TMU Site 6276/3 on link A12 northbound access from B1070
539	A12	A12 TMU Site 6277/3 on A12 southbound within the B1070 junction
540	A12	A12 TMU Site 6337/1 on A12 northbound between A1243 and A47
541	A12	A12 TMU Site 6337/2 on A12 southbound between A47 and A1243
542	A12	A12 TMU Site 6338/1 on link A12 southbound between B1370 and B1375
543	A12	A12 TMU Site 6338/2 on link A12 northbound between B1375 and B1370
544	Lowestoft	A12 TMU Site 6339/1 on link A12 southbound between B1375 and A1117
545	Lowestoft	A12 TMU Site 6339/2 on link A12 northbound between A1117 and B1375
546	A47	A47 TMU Site 6336/1 on A47 eastbound between A1064 and A12
547	A47	A47 TMU Site 6336/2 on A47 westbound between A12 and A1064
1744	A11	TMU Site 6308/1 on link A11 southbound between A14 and A1304
1745	A14	TMU Site 6308/2 on A14 westbound within J36
1746	A14	MIDAS site at A14/1139B priority 1 on link 106025401
1747	A11	MIDAS site at A11/0904A priority 1 on link 106025301
1748	A14	MIDAS site at A14/1124A priority 1 on link
1749	A14	TMU Site 6313/2 on link A14 westbound within J35
1750	A11	TMU Site 6306/1 on link road from A11 southbound to A14 westbound
1751	A14	TMU Site 6306/2 on link A14 westbound between J39 and J38
1752	A14	A14/2010B; MIDAS site at A14/2010B priority 1 on link 106053402
1753	A14	MIDAS site at A14/1866A priority 1 on link 106048801
1754	A14	TMU Site 6279/1 on link A14 J55 eastbound exit
1755	A14	TMU Site 6279/2 on link A14 eastbound within J55
1756	A14	MIDAS site at A14/1965J priority 1 on link 106053501

Appendix B.2

TRADS DATA HOURLY

OBSERVATIONS AVAILABLE

SMV ID	Road Name	Site	Description	Month / Year	Dir	AM Obs	IP Obs	PM Obs
461	A14	30032621	MIDAS site at A14/1423A priority 1 on link 106033101	Apr-16	EB	11	66	9
462	A14	30032625	MIDAS site at A14/1439A priority 1 on link 106033101	Apr-16	EB	12	68	11
463	A14	30032622	MIDAS site at A14/1427A priority 1 on link 106033101	Apr-16	EB	11	69	10
464	A14	30032623	MIDAS site at A14/1435A priority 1 on link 106033101	Apr-16	EB	11	69	11
465	A14	30032624	MIDAS site at A14/1432A priority 1 on link 106033101	Apr-16	EB	12	65	10
466	A14	30032626	MIDAS site at A14/1442J priority 1 on link 106033201	Apr-16	EB	10	64	11
467	A14	30032627	MIDAS site at A14/1446L priority 1 on link 106033301	Apr-16	WB	11	66	12
468	A14	30013440	TMU Site 6301/1 on link A14 J43 westbound exit	Apr-16	WB	12	68	12
469	A14	30013444	TMU Site 6302/1 on link A14 J43 eastbound exit	Apr-16	EB	12	66	12
470	A14	30013443	TMU Site 6302/2 on link A14 eastbound within J43	Apr-16	EB	12	69	11
471	A14	30032634	MIDAS site at A14/1469L priority 1 on link 106035101	Apr-16	WB	12	69	12
472	A14	30032633	MIDAS site at A14/1463J priority 1 on link 106034901	Apr-16	EB	12	66	11
473	A14	30013435	TMU Site 6299/2 on link A14 westbound within J44	May-16	WB	14	84	13
474	A14	30013438	TMU Site 6300/1 on link A14 J44 eastbound exit	Apr-16	EB	8	45	6
475	A14	30013437	TMU Site 6300/2 on link A14 eastbound within J44	Apr-16	EB	8	45	6
476	A14	30013442	TMU Site 6303/1 on link A14 J42 westbound exit	Apr-16	WB	12	68	12
477	A14	30013441	TMU Site 6303/2 on link A14 westbound within J42	Apr-16	WB	12	67	12
478	A14	30013446	TMU Site 6304/1 on link A14 J42 eastbound exit	Apr-16	EB	12	66	12
479	A14	30013445	TMU Site 6304/2 on link A14 eastbound within J42	Apr-16	EB	12	68	11
480	A14	30032609	MIDAS site at A14/1241A priority 1 on link 106026701	Apr-16	EB	12	63	12

SMV ID	Road Name	Site	Description	Month / Year	Dir	AM Obs	IP Obs	PM Obs
481	A14	30032615	MIDAS site at A14/1254A priority 1 on link 106031101	Apr-16	EB	12	66	10
482	A14	30032602	MIDAS site at A14/1223B priority 1 on link 106027201	Apr-16	WB	12	64	11
483	A14	30032614	MIDAS site at A14/1254J priority 1 on link 106026801	Mar-15	NB	18	108	18
484	A14	30032601	MIDAS site at A14/1218L priority 1 on link 106027601	Apr-16	WB	11	59	6
485	A14	30032616	MIDAS site at A14/1255B priority 1 on link 106026502	Apr-16	WB	12	69	10
486	A14	30032610	MIDAS site at A14/1241B priority 1 on link 106027201	Apr-16	WB	12	65	12
487	A14	30015858	TMU Site 9942/1 on link A14 J49 eastbound exit	Mar-15	EB	18	108	18
488	A14	30015859	TMU Site 9942/2 on link A14 eastbound within J49	Mar-15	EB	17	102	17
489	A14	30013415	TMU Site 6295/1 on link A14 J51 westbound exit	Apr-16	WB	10	67	12
490	A14	30013417	TMU Site 6296/1 on link A14 J51 eastbound exit	Mar-15	EB	18	108	18
491	A14	30032644	MIDAS site at A14/1800A priority 1 on link 106045901	Apr-16	EB	12	66	8
492	A14	30032647	MIDAS site at A14/1813B priority 1 on link 106063901	Apr-16	WB	11	68	12
493	A14	30032645	MIDAS site at A14/1804J priority 1 on link 106045801	Apr-16	EB	11	60	10
494	A14	30032646	MIDAS site at A14/1811L priority 1 on link 106046001	Apr-16	WB	12	64	11
495	A14	30013411	TMU Site 6293/1 on link A14 J53 westbound exit	Apr-16	WB	11	62	11
496	A14	30013410	TMU Site 6293/2 on link A14 westbound within J53	Apr-16	WB	12	68	12
497	A14	30013413	TMU Site 6294/1 on link A14 J53 eastbound exit	Apr-16	EB	12	68	11
498	A14	30013412	TMU Site 6294/2 on link A14 eastbound within J53	Apr-16	EB	12	71	11
499	A14	30032660	MIDAS site at A14/1844A priority 1 on link 106046101	Apr-16	EB	11	66	10
500	A14	30032665	MIDAS site at A14/1861B priority 1 on link 106047201	Apr-16	WB	12	68	12
501	A14	30032664	MIDAS site at A14/1855L priority 1 on link 121033901	Apr-16	WB	9	51	8
502	A14	30032662	MIDAS site at A14/1852J priority 1 on link 121034001	Apr-16	EB	11	60	7

SMV ID	Road Name	Site	Description	Month / Year	Dir	AM Obs	IP Obs	PM Obs
503	A14	30013409	TMU Site 6279/1 on link A14 J55 eastbound exit	Mar-15	EB	18	108	18
504	A14	30013408	TMU Site 6279/2 on link A14 eastbound within J55	Mar-15	EB	18	108	18
505	A14	30013407	TMU Site 6280/1 on link A14 J55 westbound exit	Mar-15	WB	18	108	18
506	A14	30013406	TMU Site 6280/2 on link A14 westbound within J55	Apr-16	WB	12	69	11
507	A14	30032680	MIDAS site at A14/1908A priority 1 on link 106048001	Apr-16	EB	11	68	12
508	A14	30032682	MIDAS site at A14/1913B priority 1 on link 106049501	Apr-16	WB	12	64	12
509	A14	30032689	MIDAS site at A14/1963A priority 1 on link 106048301	Apr-16	EB	11	69	11
510	A14	30032688	MIDAS site at A14/1957B priority 1 on link 106047801	Apr-16	WB	11	66	11
511	A14	30032692	MIDAS site at A14/1973B priority 1 on link 106053001	Apr-16	WB	12	59	11
512	A14	30032693	MIDAS site at A14/1977A priority 1 on link 106053101	Apr-16	EB	12	66	12
513	A14	30013397	TMU Site 6281/1 on link A14 J56 eastbound exit	Apr-16	EB	12	69	11
514	A14	30013396	TMU Site 6281/2 on link A14 eastbound within J56	Mar-15	EB	17	102	17
515	A14	30013399	TMU Site 6283/1 on link A14 J57 eastbound exit	Apr-16	EB	11	66	5
516	A14	30013398	TMU Site 6283/2 on link A14 eastbound within J57	Mar-15	EB	4	24	4
517	A14	30013403	TMU Site 6284/1 on link A14 J57 westbound exit	Apr-16	WB	12	66	12
518	A14	30013402	TMU Site 6284/2 on link A14 westbound within J57	Apr-16	WB	12	69	12
519	A14	30013405	TMU Site 6285/1 on link A14 J58 eastbound exit	Apr-16	EB	12	68	12
520	A14	30013401	TMU Site 6286/1 on link A14 J58 westbound exit	Apr-16	WB	9	64	12
521	A14	30013400	TMU Site 6286/2 on link A14 westbound within J58	Apr-16	WB	9	64	11
522	A14	30032709	MIDAS site at A14/2040A priority 1 on link 199136001	Apr-16	EB	11	63	11
523	A14	30032713	MIDAS site at A14/2057A priority 1 on link 199136001	Apr-16	EB	12	62	10
524	A14	30032714	MIDAS site at A14/2068L priority 1 on link 199136101	Apr-16	WB	12	61	11

SMV ID	Road Name	Site	Description	Month / Year	Dir	AM Obs	IP Obs	PM Obs
525	A14	30032554	MIDAS site at A14/2060J priority 1 on link 199136301	Apr-16	EB	11	58	8
526	A14	30032715	MIDAS site at A14/2070B priority 1 on link 199135901	Apr-16	WB	11	62	11
527	A14	30032719	MIDAS site at A14/2087B priority 1 on link 106050701	Apr-16	WB	11	63	11
528	A14	30015309	TMU Site 6493/1 on link A14 eastbound between J60 and J61	Apr-16	EB	12	68	12
529	A14	30032721	MIDAS site at A14/2098A priority 1 on link 106051101	Apr-16	EB	11	64	10
530	A14	30032722	MIDAS site at A14/2102B priority 1 on link 106051401	Apr-16	WB	11	60	11
531	A14	30032628	MIDAS site at A14/1449B priority 1 on link 106033401	Apr-16	WB	11	64	11
532	A11	30013314	TMU Site 6320/1 on link A11 northbound between A134 and A134/A1066	Apr-16	NB	12	68	12
533	A11	30013313	TMU Site 6321/1 on link A11 southbound between A134/A1066 and A134	Apr-16	SB	12	68	12
534	A11	30015035	TMU Site 6360/1 on link A11 northbound between A1075 and B111	Apr-16	NB	12	68	12
535	A11	30015036	TMU Site 6499/1 on link A11 southbound between B111 and A1075	Apr-16	SB	12	69	12
536	A12	30013367	TMU Site 6275/1 on link A12 southbound exit for A120 near Colchester (east)	Apr-16	SB	12	68	12
537	A12	30013366	TMU Site 6275/2 on link A12 southbound within the A120 near Colchester (east) junction	Apr-16	SB	12	69	12
538	A12	30013373	TMU Site 6276/3 on link A12 northbound access from B1070	Apr-16	NB	12	67	12
539	A12	30013368	TMU Site 6277/3 on A12 southbound within the B1070 junction	Mar-15	SB	15	90	15
540	A12	30013380	TMU Site 6337/1 on A12 northbound between A1243 and A47	Apr-16	NB	4	23	4
541	A12	30013381	TMU Site 6337/2 on A12 southbound between A47 and A1243	Apr-16	SB	4	23	4
542	A12	30013379	TMU Site 6338/1 on link A12 southbound between B1370 and B1375	Apr-16	SB	7	39	7
543	A12	30013378	TMU Site 6338/2 on link A12 northbound between B1375 and B1370	Apr-16	NB	7	39	7
544	A12	30013377	TMU Site 6339/1 on link A12 southbound between B1375 and A1117	Apr-16	SB	12	63	11
545	A12	30013376	TMU Site 6339/2 on link A12 northbound between A1117 and B1375	Apr-16	NB	12	68	11

SMV ID	Road Name	Site	Description	Month / Year	Dir	AM Obs	IP Obs	PM Obs
546	A47	30013465	TMU Site 6336/1 on A47 eastbound between A1064 and A12	Apr-16	EB	12	67	12
547	A47	30013466	TMU Site 6336/2 on A47 westbound between A12 and A1064	Apr-16	WB	12	67	12

Appendix B.3

TRADS DATA AVERAGE TRAFFIC

FLOW BY PEAK HOUR

SMV ID	Area	Ref	Site Location	Dir	Date	AM	IP	PM
461	A14	30032621	A14 MIDAS site at A14/1423A priority 1 on link 106033101	EB	Apr-16	1790	1420	2629
462	A14	30032625	A14 MIDAS site at A14/1439A priority 1 on link 106033101	EB	Apr-16	1752	1404	2602
463	A14	30032622	A14 MIDAS site at A14/1427A priority 1 on link 106033101	EB	Apr-16	1789	1393	2655
464	A14	30032623	A14 MIDAS site at A14/1435A priority 1 on link 106033101	EB	Apr-16	1788	1393	2603
465	A14	30032624	A14 MIDAS site at A14/1432A priority 1 on link 106033101	EB	Apr-16	1756	1381	2656
466	A14	30032626	A14 MIDAS site at A14/1442J priority 1 on link 106033201	EB	Apr-16	505	367	575
467	A14	30032627	A14 MIDAS site at A14/1446L priority 1 on link 106033301	WB	Apr-16	886	561	709
468	A14	30013440	A14 TMU Site 6301/1 on link A14 J43 westbound exit	WB	Apr-16	937	568	721
469	A14	30013444	A14 TMU Site 6302/1 on link A14 J43 eastbound exit	EB	Apr-16	547	375	578
470	A14	30013443	A14 TMU Site 6302/2 on link A14 eastbound within J43	EB	Apr-16	1228	1033	2046
471	A14	30032634	A14 MIDAS site at A14/1469L priority 1 on link 106035101	WB	Apr-16	796	376	383
472	A14	30032633	A14 MIDAS site at A14/1463J priority 1 on link 106034901	EB	Apr-16	705	571	981
473	A14	30013435	A14 TMU Site 6299/2 on link A14 westbound within J44	WB	May-16	2208	962	1187
474	A14	30013438	A14 TMU Site 6300/1 on link A14 J44 eastbound exit	EB	Apr-16	730	583	990
475	A14	30013437	A14 TMU Site 6300/2 on link A14 eastbound within J44	EB	Apr-16	1089	1059	2136
476	A14	30013442	A14 TMU Site 6303/1 on link A14 J42 westbound exit	WB	Apr-16	607	272	386
477	A14	30013441	A14 TMU Site 6303/2 on link A14 westbound within J42	WB	Apr-16	1829	1075	1292
478	A14	30013446	A14 TMU Site 6304/1 on link A14 J42 eastbound exit	EB	Apr-16	638	368	640
479	A14	30013445	A14 TMU Site 6304/2 on link A14 eastbound within J42	EB	Apr-16	1387	1158	2042
480	A14	30032609	A14 MIDAS site at A14/1241A priority 1 on link 106026701	EB	Apr-16	2102	2295	4001
481	A14	30032615	A14 MIDAS site at A14/1254A priority 1 on link 106031101	EB	Apr-16	1132	1110	2038

482	A14	30032602	A14 MIDAS site at A14/1223B priority 1 on link 106027201	WB	Apr-16	3663	2147	2372
483	A14	30032614	A14 MIDAS site at A14/1254J priority 1 on link 106026801	NB	Mar-15	947	1075	1911
484	A14	30032601	A14 MIDAS site at A14/1218L priority 1 on link 106027601	WB	Apr-16	732	324	472
485	A14	30032616	A14 MIDAS site at A14/1255B priority 1 on link 106026502	WB	Apr-16	1805	1009	1187
486	A14	30032610	A14 MIDAS site at A14/1241B priority 1 on link 106027201	WB	Apr-16	3679	2202	2247
487	A14	30015858	A14 TMU Site 9942/1 on link A14 J49 eastbound exit	EB	Mar-15	266	201	455
488	A14	30015859	A14 TMU Site 9942/2 on link A14 eastbound within J49	EB	Mar-15	1325	996	1880
489	A14	30013415	A14 TMU Site 6295/1 on link A14 J51 westbound exit	WB	Apr-16	675	555	870
490	A14	30013417	A14 TMU Site 6296/1 on link A14 J51 eastbound exit	EB	Mar-15	301	159	284
491	A14	30032644	A14 MIDAS site at A14/1800A priority 1 on link 106045901	EB	Apr-16	2900	1664	2638
492	A14	30032647	A14 MIDAS site at A14/1813B priority 1 on link 106063901	WB	Apr-16	2694	1913	2974
493	A14	30032645	A14 MIDAS site at A14/1804J priority 1 on link 106045801	EB	Apr-16	315	153	283
494	A14	30032646	A14 MIDAS site at A14/1811L priority 1 on link 106046001	WB	Apr-16	706	507	684
495	A14	30013411	A14 TMU Site 6293/1 on link A14 J53 westbound exit	WB	Apr-16	514	289	414
496	A14	30013410	A14 TMU Site 6293/2 on link A14 westbound within J53	WB	Apr-16	1901	1321	2095
497	A14	30013413	A14 TMU Site 6294/1 on link A14 J53 eastbound exit	EB	Apr-16	1023	659	843
498	A14	30013412	A14 TMU Site 6294/2 on link A14 eastbound within J53	EB	Apr-16	2427	1414	2166
499	A14	30032660	A14 MIDAS site at A14/1844A priority 1 on link 106046101	EB	Apr-16	2900	1738	2734
500	A14	30032665	A14 MIDAS site at A14/1861B priority 1 on link 106047201	WB	Apr-16	2341	1586	2552
501	A14	30032664	A14 MIDAS site at A14/1855L priority 1 on link 121033901	WB	Apr-16	277	202	446
502	A14	30032662	A14 MIDAS site at A14/1852J priority 1 on link 121034001	EB	Apr-16	427	230	377
503	A14	30013409	A14 TMU Site 6279/1 on link A14 J55 eastbound exit	EB	Mar-15	1221	809	1357

504	A14	30013408	A14 TMU Site 6279/2 on link A14 eastbound within J55	EB	Mar-15	1697	903	1558
505	A14	30013407	A14 TMU Site 6280/1 on link A14 J55 westbound exit	WB	Mar-15	1160	923	1302
506	A14	30013406	A14 TMU Site 6280/2 on link A14 westbound within J55	WB	Apr-16	1371	857	1675
507	A14	30032680	A14 MIDAS site at A14/1908A priority 1 on link 106048001	EB	Apr-16	3162	1891	2707
508	A14	30032682	A14 MIDAS site at A14/1913B priority 1 on link 106049501	WB	Apr-16	2385	1720	2795
509	A14	30032689	A14 MIDAS site at A14/1963A priority 1 on link 106048301	EB	Apr-16	3501	1943	3010
510	A14	30032688	A14 MIDAS site at A14/1957B priority 1 on link 106047801	WB	Apr-16	2546	1760	3167
511	A14	30032692	A14 MIDAS site at A14/1973B priority 1 on link 106053001	WB	Apr-16	2492	1547	2344
512	A14	30032693	A14 MIDAS site at A14/1977A priority 1 on link 106053101	EB	Apr-16	2146	1507	2645
513	A14	30013397	A14 TMU Site 6281/1 on link A14 J56 eastbound exit	EB	Apr-16	562	320	509
514	A14	30013396	A14 TMU Site 6281/2 on link A14 eastbound within J56	EB	Mar-15	2594	1566	2352
515	A14	30013399	A14 TMU Site 6283/1 on link A14 J57 eastbound exit	EB	Apr-16	1368	717	968
516	A14	30013398	A14 TMU Site 6283/2 on link A14 eastbound within J57	EB	Mar-15	1962	1181	2071
517	A14	30013403	A14 TMU Site 6284/1 on link A14 J57 westbound exit	WB	Apr-16	512	278	197
518	A14	30013402	A14 TMU Site 6284/2 on link A14 westbound within J57	WB	Apr-16	1964	1317	2071
519	A14	30013405	A14 TMU Site 6285/1 on link A14 J58 eastbound exit	EB	Apr-16	1364	795	1546
520	A14	30013401	A14 TMU Site 6286/1 on link A14 J58 westbound exit	WB	Apr-16	533	434	666
521	A14	30013400	A14 TMU Site 6286/2 on link A14 westbound within J58	WB	Apr-16	1047	654	985
522	A14	30032709	A14 MIDAS site at A14/2040A priority 1 on link 199136001	EB	Apr-16	786	689	1568
523	A14	30032713	A14 MIDAS site at A14/2057A priority 1 on link 199136001	EB	Apr-16	1479	1150	1779
524	A14	30032714	A14 MIDAS site at A14/2068L priority 1 on link 199136101	WB	Apr-16	163	164	390
525	A14	30032554	A14 MIDAS site at A14/2060J priority 1 on link 199136301	EB	Apr-16	132	137	327

526	A14	30032715	A14 MIDAS site at A14/2070B priority 1 on link 199135901	WB	Apr-16	1427	1073	1941
527	A14	30032719	A14 MIDAS site at A14/2087B priority 1 on link 106050701	WB	Apr-16	786	685	1568
528	A14	30015309	A14 TMU Site 6493/1 on link A14 eastbound between J60 and J61	EB	Apr-16	777	704	1493
529	A14	30032721	A14 MIDAS site at A14/2098A priority 1 on link 106051101	EB	Apr-16	594	258	241
530	A14	30032722	A14 MIDAS site at A14/2102B priority 1 on link 106051401	WB	Apr-16	252	305	712
531	A14	30032628	A14 MIDAS site at A14/1449B priority 1 on link 106033401	WB	Apr-16	2823	1491	1975
532	A11	30013314	A11 TMU Site 6320/1 on link A11 northbound between A134 and A134/A1066	NB	Apr-16	1134	1120	1679
533	A11	30013313	A11 TMU Site 6321/1 on link A11 southbound between A134/A1066 and A134	SB	Apr-16	1651	1152	1195
534	A11	30015035	A11 TMU Site 6360/1 on link A11 northbound between A1075 and B111	NB	Apr-16	1062	919	1517
535	A11	30015036	A11 TMU Site 6499/1 on link A11 southbound between B111 and A1075	SB	Apr-16	1387	947	1126
536	A12	30013367	A12 TMU Site 6275/1 on link A12 southbound exit for A120 near Colchester (east)	SB	Apr-16	1058	584	847
537	A12	30013366	A12 TMU Site 6275/2 on link A12 southbound within the A120 near Colchester (east) junction	SB	Apr-16	1591	1061	1448
538	A12	30013373	A12 TMU Site 6276/3 on link A12 northbound access from B1070	NB	Apr-16	257	168	336
539	A12	30013368	A12 TMU Site 6277/3 on A12 southbound within the B1070 junction	SB	Mar-15	2065	1329	1999
540	A12	30013380	A12 TMU Site 6337/1 on A12 northbound between A1243 and A47	NB	Apr-16	1429	1094	1403
541	A12	30013381	A12 TMU Site 6337/2 on A12 southbound between A47 and A1243	SB	Apr-16	1418	1304	1538
542	A12	30013379	A12 TMU Site 6338/1 on link A12 southbound between B1370 and B1375	SB	Apr-16	1205	953	1439

543	A12	30013378	A12 TMU Site 6338/2 on link A12 northbound between B1375 and B1370	NB	Apr-16	1616	968	1161
544	Lowestoft	30013377	A12 TMU Site 6339/1 on link A12 southbound between B1375 and A1117	SB	Apr-16	586	467	668
545	Lowestoft	30013376	A12 TMU Site 6339/2 on link A12 northbound between A1117 and B1375	NB	Apr-16	574	447	564
546	A47	30013465	A47 TMU Site 6336/1 on A47 eastbound between A1064 and A12	EB	Apr-16	816	646	869
547	A47	30013466	A47 TMU Site 6336/2 on A47 westbound between A12 and A1064	WB	Apr-16	776	666	1013
1144	Ipswich		A14 EB J56-J57		Jul-15	3437	6046	3052
1145	Ipswich		A14 WB J57-J56		Jul-15	2630	5748	3596
1146	Ipswich		A14 EB J55-J56		Jul-15	3150	5752	2869
1147	Ipswich		A14 WB J56-J55		Jul-15	2454	5386	3168
1148	Ipswich		A14 EB J57-J58		Jul-15	2321	4985	2779
1149	Ipswich		A14 WB J58-J57		Jul-15	2359	4663	2325
1744	A11		TMU Site 6308/1 on link A11 southbound between A14 and A1304	SB	Apr-15	1764	914	1007
1745	A14		TMU Site 6308/2 on A14 westbound within J36	WB	Apr-15	2182	1224	1318
1746	A14		MIDAS site at A14/1139B priority 1 on link 106025401	SB	Apr-16	2014	1256	1361
1747	A11		MIDAS site at A11/0904A priority 1 on link 106025301	NB	Apr-16	984	1004	1912
1748	A14		MIDAS site at A14/1124A priority 1 on link	EB	Apr-16	1140	1277	2237
1749	A14		TMU Site 6313/2 on link A14 westbound within J35	WB	Apr-16	2492	1374	1499
1750	A11		TMU Site 6306/1 on link road from A11 southbound to A14 westbound	WB	Apr-16	1722	1077	1081
1751	A14		TMU Site 6306/2 on link A14 westbound between J39 and J38	WB	Apr-16	1772	989	1123
1752	A14		A14/2010B; MIDAS site at A14/2010B priority 1 on link 106053402	WB	Apr-16	1661	1099	1631
1753	A14		MIDAS site at A14/1866A priority 1 on link 106048801	EB	Apr-16	3010	1798	2934

1754	A14		TMU Site 6279/1 on link A14 J55 eastbound exit	EB	Apr-16	1320	921	1477
1755	A14		TMU Site 6279/2 on link A14 eastbound within J55	EB	Apr-16	1711	940	1464
1756	A14		MIDAS site at A14/1965J priority 1 on link 106053501	EB	Apr-16	1550	749	897
1811	A14		A14 MIDAS site at A14/1804J priority 1 on link 106045801	EB	Apr-16	315	153	283
1812	A14		A14 TMU Site 6294/1 on link A14 J53 eastbound exit	EB	Apr-16	1023	659	843
1813	A14		A14 TMU Site 6294/2 on link A14 eastbound within J53	EB	Apr-16	2337	1391	2339
1814	A14		A14 MIDAS site at A14/1844A priority 1 on link 106046101	EB	Apr-16	2794	1734	2921
1815	A14		A14 MIDAS site at A14/1852J priority 1 on link 121034001	EB	Apr-16	427	230	377
1817	A14		MIDAS site at A14/1866A priority 1 on link 106048801	EB	Apr-16	3010	1798	2934
1819	A14		TMU Site 6279/2 on link A14 eastbound within J55	EB	Apr-16	1690	877	1457
1821	A14		A14 MIDAS site at A14/1908A priority 1 on link 106048001	EB	Apr-16	3162	1891	2707
1822	A14		A14 TMU Site 6281/1 on link A14 J56 eastbound exit	EB	Apr-16	591	320	371
1823	A14		A14 TMU Site 6281/2 on link A14 eastbound within J56	EB	Apr-16	2570	1571	2336
1825	A14		A14 MIDAS site at A14/1963A priority 1 on link 106048301	EB	Apr-16	3501	1943	3010
1826	A14		MIDAS site at A14/1965J priority 1 on link 106053501	EB	Apr-16	1550	749	897
1827	A14		A14 TMU Site 6283/2 on link A14 eastbound within J57	EB	Apr-16	1951	1193	2112
1829	A14		A14 MIDAS site at A14/1977A priority 1 on link 106053101	EB	Apr-16	2152	1516	2701
1832	A14		A14 TMU Site 6286/2 on link A14 westbound within J58	WB	Apr-16	1128	665	966
1834	A14		A14 MIDAS site at A14/1973B priority 1 on link 106053001	WB	Apr-16	2317	1559	2039
1835	A14		A14 TMU Site 6284/1 on link A14 J57 westbound exit	WB	Apr-16	512	278	197
1836	A14		A14 TMU Site 6284/2 on link A14 westbound within J57	WB	Apr-16	1806	1282	1841
1838	A14		A14 MIDAS site at A14/1957B priority 1 on link 106047801	WB	Apr-16	2546	1760	3167

1840	A14		A14 MIDAS site at A14/1913B priority 1 on link 106049501	WB	Apr-16	2385	1720	2795
1841	A14		A14 TMU Site 6280/1 on link A14 J55 westbound exit	WB	Apr-16	1151	925	1292
1842	A14		A14 TMU Site 6280/2 on link A14 westbound within J55	WB	Apr-16	1235	795	1503
1844	A14		A14 MIDAS site at A14/1861B priority 1 on link 106047201	WB	Apr-16	2341	1586	2552
1845	A14		A14 MIDAS site at A14/1855L priority 1 on link 121033901	WB	Apr-16	277	202	446
1846	A14		A14 TMU Site 6293/1 on link A14 J53 westbound exit	WB	Apr-16	454	258	373
1847	A14		A14 TMU Site 6293/2 on link A14 westbound within J53	WB	Apr-16	1901	1321	2095
1849	A14		A14 MIDAS site at A14/1813B priority 1 on link 106063901	WB	Apr-16	2694	1913	2974
1850	A14		A14 MIDAS site at A14/1811L priority 1 on link 106046001	WB	Apr-16	706	507	684

Appendix C

TRAFFICMASTER GPS DATA

Appendix C.1

TRAFFICMASTER JOURNEY TIME

ROUTE DESCRIPTIONS

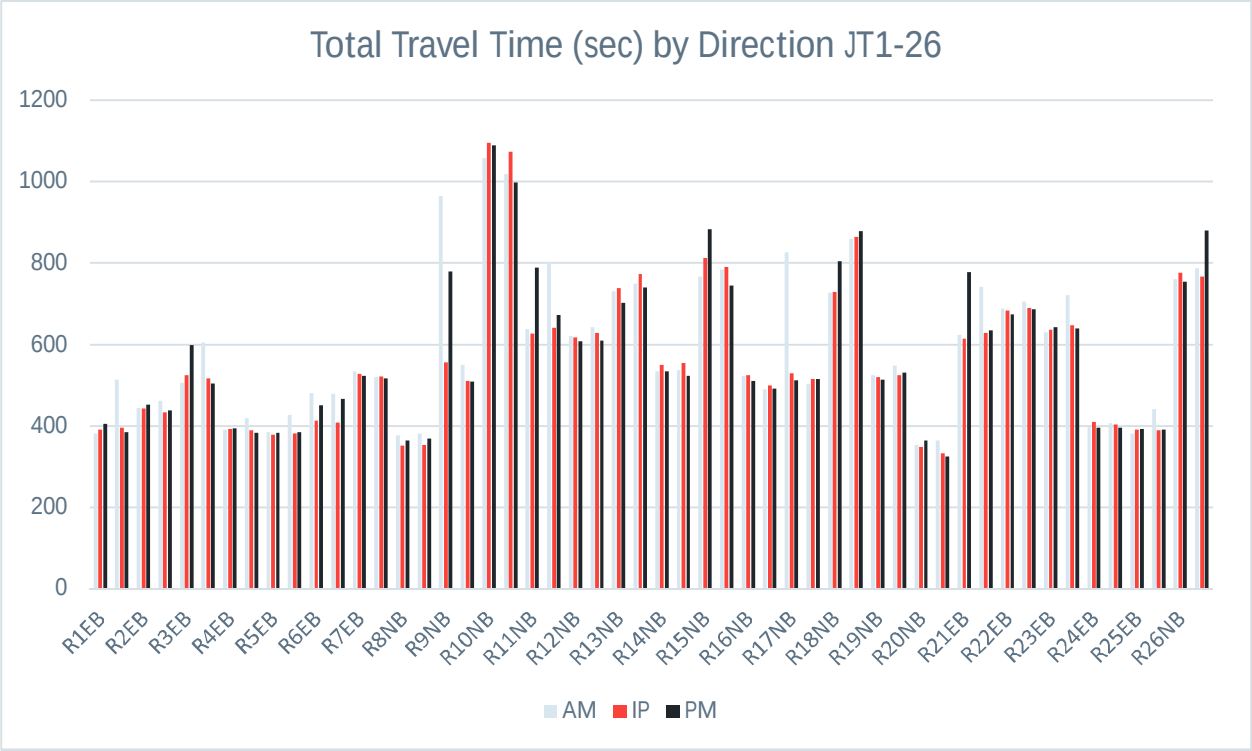
Route	Length (km)	Road	Description
1	11.4	A14	J36-J38 through Newmarket
2	12.6	A14	J38-J41
3	14.4	A14	J41-J46 through Bury St Edmunds
4	11.0	A14	J46-J49
5	9.8	A14	J49-J51 through Stowmarket
6	9.6	A14	J51-J54 to Ipswich
7	10.9	A14	J54-J57 through Ipswich
8	13.6	A14	J57- J62 through Felixstowe
9	13.8	A12	Dedham to Ipswich (J55)
10	11.9	A12	J58 to Woodbridge
11	18.3	A12	Woodbridge to Farnham
12	9.4	A12	Farnham to Darsham
13	10.5	A12	Darsham to Wangford
14	14.1	A12	Wangford to Pakefield
15	12.0	A12	Pakefield to Blundeston (through Lowestoft)
16	10.6	A134	Middleton to Long Melford
17	9.3	A134	Long Melford to Stanningfield
18	8.2	A134	Stanningfield to Bury St Edmunds
19	10.0	A134	Bury St Edmunds to Airfield
20	6.2	A134	Airfield to Thetford
21	10.7	A143	Bury St Edmunds to Ixworth
22	11.8	A143	Ixworth to Rickinghall
23	13.6	A143	Rickinghall to Scole
24	10.4	A11	Kennett to Mildenhall
25	11.9	A11	Mildenhall to Thetford
26	13.9	A1065	Mildenhall to Lakenheath
27	14.2	A140	Coddenham to Wickham Skeith
28	11.5	A140	Wickham Skeith to Scole
29	12.6	A1101	Bury St Edmunds to Icklingham
30	12.0	A1101	Icklingham to Beck Row
31	10.4	A1101	Beck Row to Burnt Fen
32	12.3	A143	Haverhill to Stradishall
33	8.8	A143	Stradishall to Chevington
34	7.6	A143	Chevington to Bury St Edmunds
35	13.2	A134	Great Conard to Nayland
36	11.1	A1071	Newton to Hadleigh

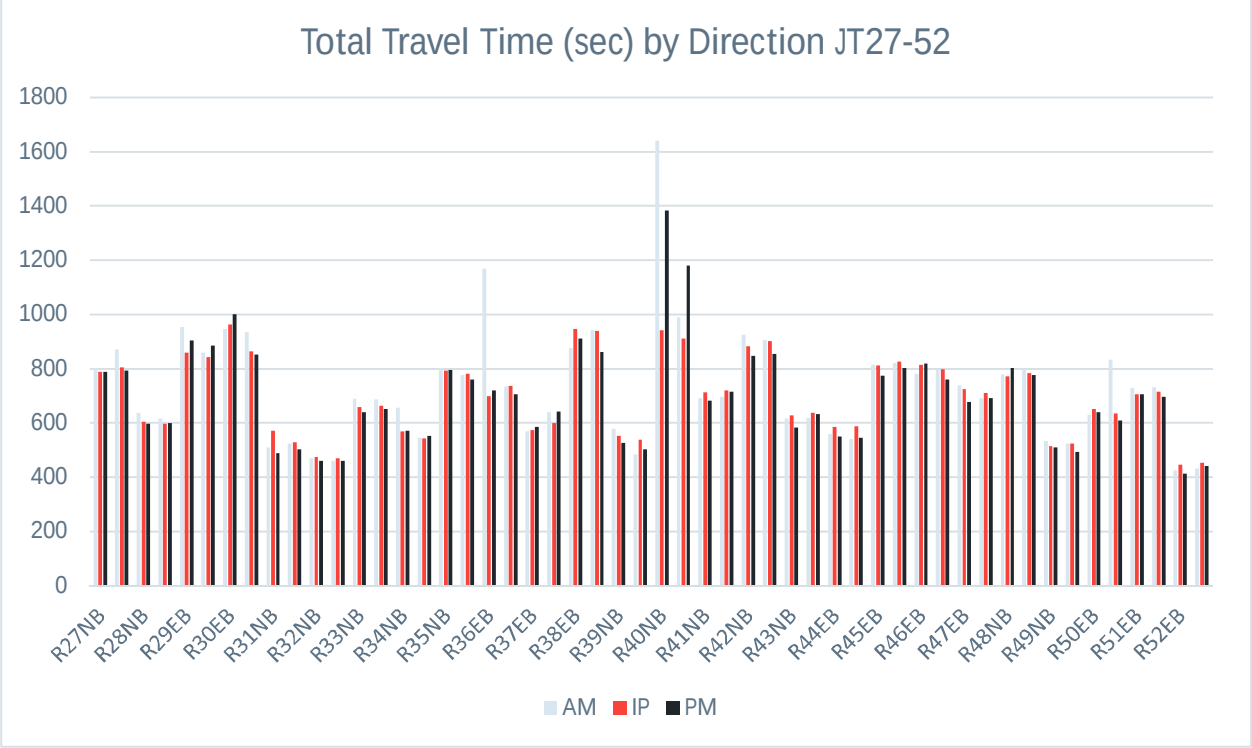
Route	Length (km)	Road	Description
37	11.5	A1071	Hadleigh to Ipswich
38	14.1	A1141	Hadleigh to Lavenham
39	8.1	A1141	Lavenham to Stanningfield
40	12.1	A137	Brantham to Ipswich
41	13.0	A145	Weston to Blythburgh
42	13.4	A144	Darsham to St Lawrence
43	9.3	A144	St Lawrence to Ditchingham
44	10.2	A1094	Farnham to Aldeburgh
45	12.9	A1120	Stowupland to Peats Corner
46	11.7	A1120	Peats Corner to Dennington
47	12.9	A1120	Dennington to Yoxford
48	15.1	A1088	Thretford to Ixworth
49	8.7	A1088	Ixworth to Woolpit
50	9.0	A1303	Kennett to Newmarket Heath
51	10.1	A1092	Wixoe to Cavendish
52	6.8	A1092	Cavendish to Stanstead
53	5.5	A1307	through Haverhill
54	5.6	A1017	through Haverhill
55	5.7	A134	through Sudbury
56	5.9	A154	through Felixstowe
57	7.1	A1308	through Stowmarket
58	5.5	A1302	through Bury St Edmunds
59	7.4	A145	through Beccles
60	9.0	A1145	through Lowestoft
61	13.5	A1214	through Ipswich
62	11.8	A1156	through Ipswich
63	7.9	A1214	through Ipswich
64	7.4	A145	Beccles to Lowestoft
101	4.5	B1375	B1375 Gorleston Road
102	6.1	A12	A12 Yarmouth Road / Katwijk Way
103	3.2	A1117 / A1144	A1117 Normanston Drive / A1144 St Peter's Street
104	6.8	A12 / B1532	A12 London Road / B1532 London Road South
105	3.6	B1074 / A1117	B1074 / A1117 Millennium Way / Oulton Road
106	9.5	A146	A146 Beccles Road / A146 Waveney Drive
200	7.3	B1438	Yarmouth Road / Melton Road (Woodbridge)
201	13.5	B1116	B1116 / B1078 / B1438

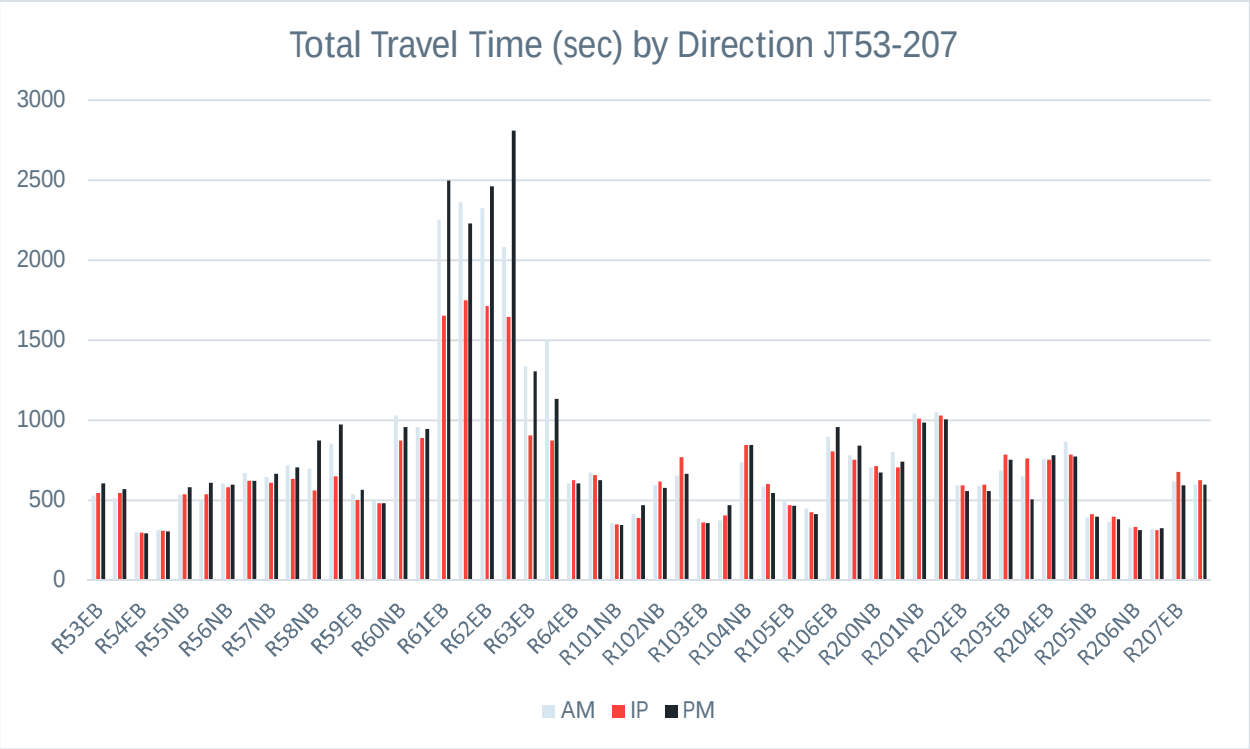
Route	Length (km)	Road	Description
202	9.9	B1078	B1078 Ipswich Road
203	3.7	B1078	B1078 Ash Road
204	11.5	A1152	A1152
205	6.0	B1069	B1069 (South of A1094)
206	4.3	B1069	B1069 Snape Road (North of A1094)
207	7.6	B1119	B1119 Saxmundham Road

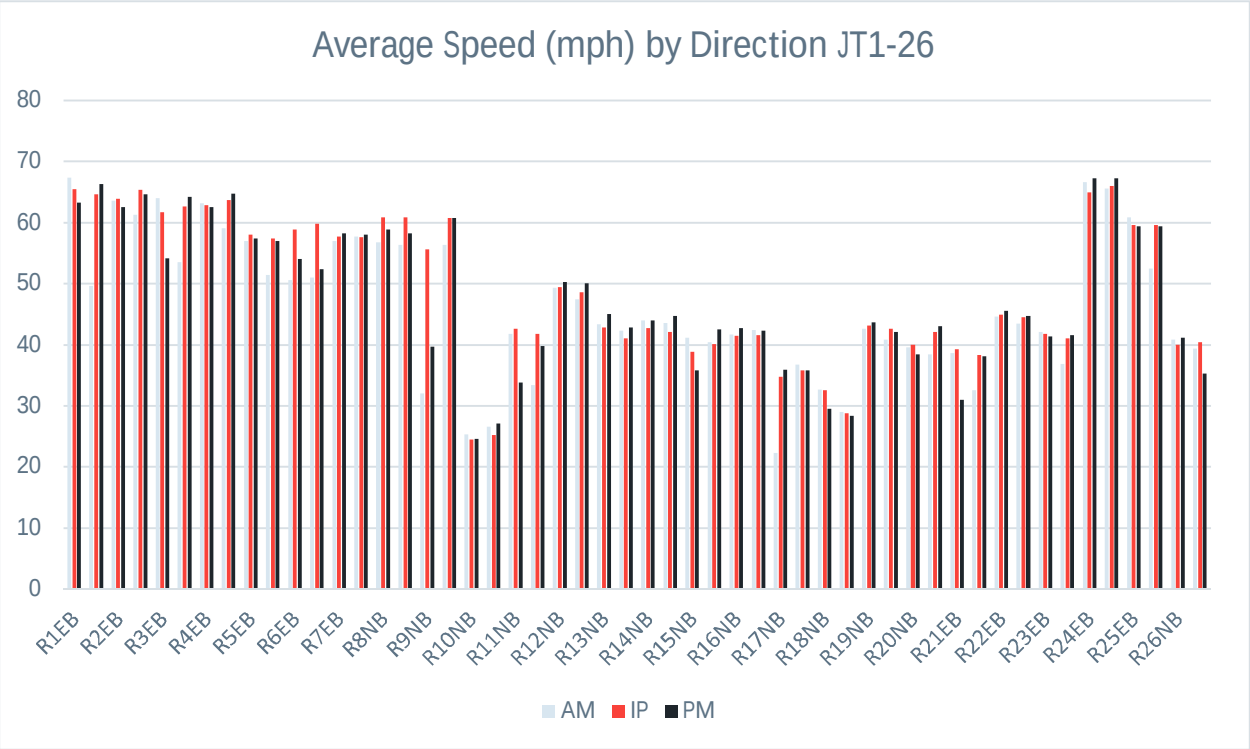
Appendix C.2

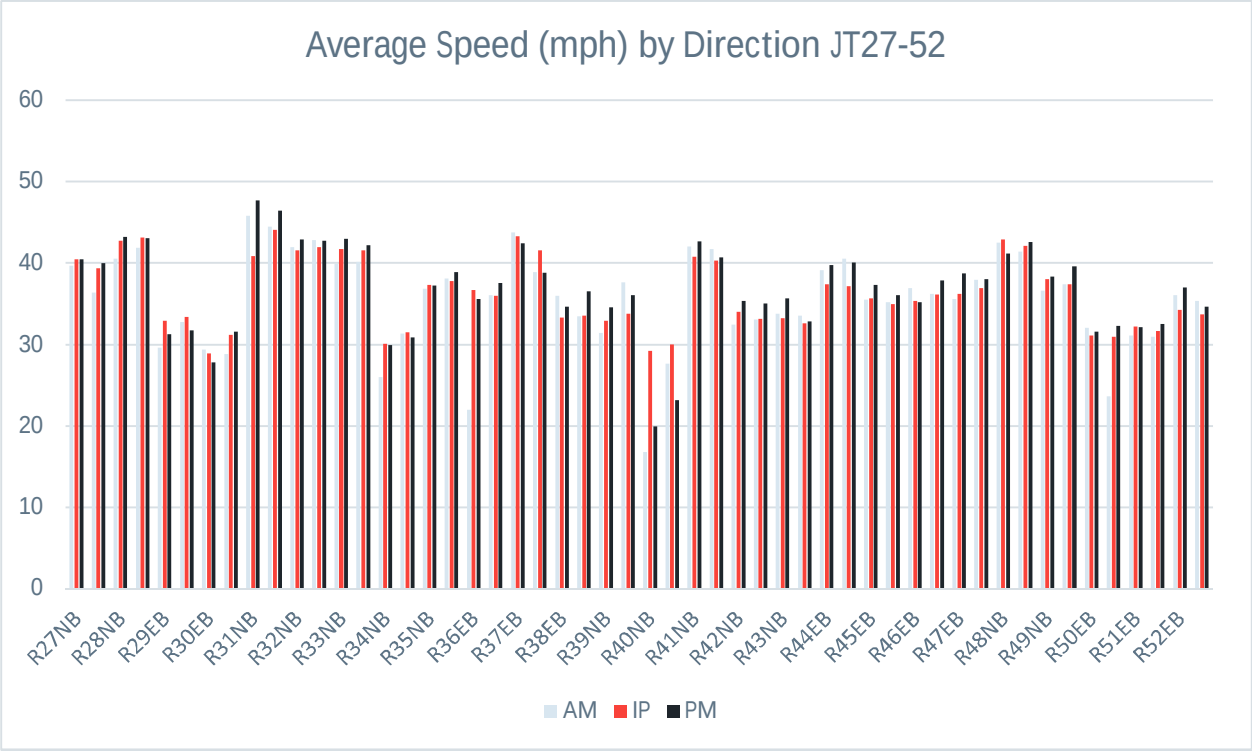
GRAPHS OF AVERAGE TRAVEL TIME AND SPEED

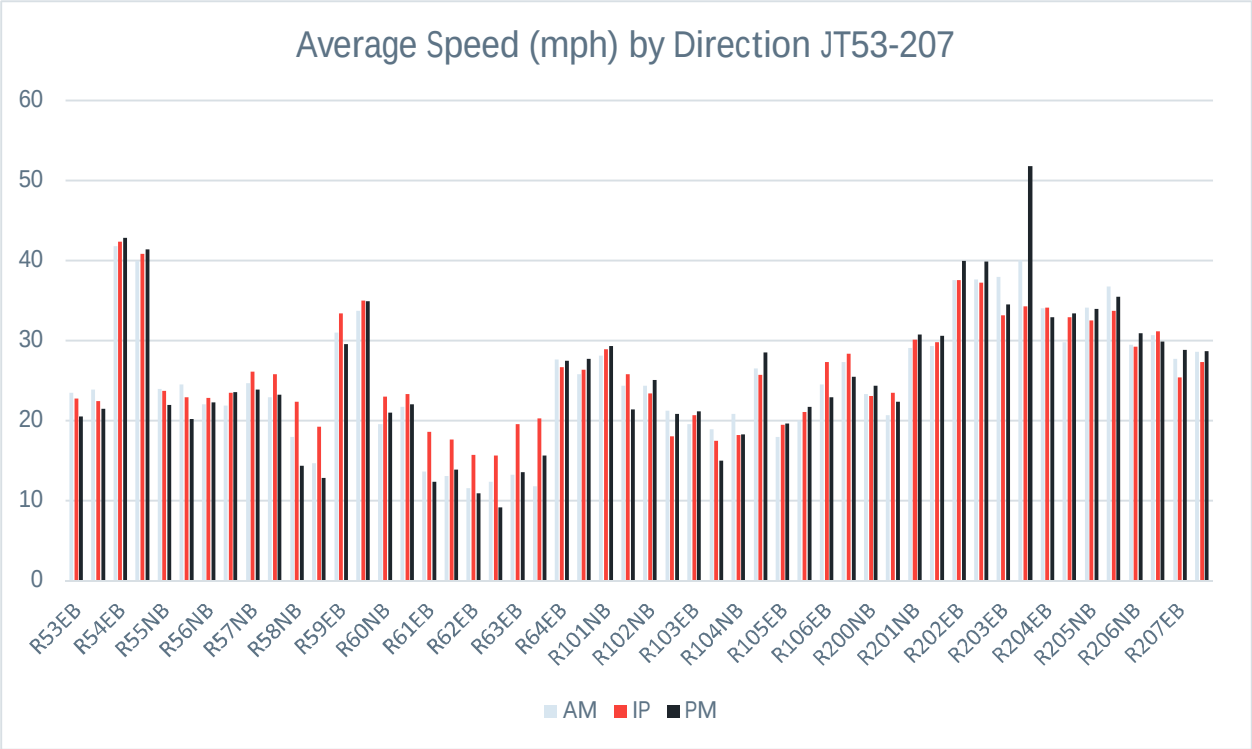

Total Travel Time (sec) by Direction JT1-26
1200
1000
800
600
400
200
0
R1EB R2EB R3EB R4EB R5EB R6EB R7EB R8NB R9NB R10NB R11NB R12NB R13NB R14NB R15NB R16NB R17NB R18NB R19NB R20NB R21EB R22EB R23EB R24EB R25EB R26NB
AM IP PM


Total Travel Time (sec) by Direction JT27-52
1800
1600
1400
1200
1000
800
600
400
200
0
R27NB R28NB R29EB R30EB R31NB R32NB R33NB R34NB R35NB R36EB R37EB R38EB R39NB R40NB R41NB R42NB R43NB R44EB R45EB R46EB R47EB R48NB R49NB R50EB R51EB R52EB
AM IP PM


Total Travel Time (sec) by Direction JT53-207
3000
2500
2000
1500
1000
500
0
R53EB
R54EB
R55NB
R56NB
R57NB
R58NB
R59EB
R60NB
R61EB
R62EB
R63EB
R64EB
R101NB
R102NB
R103EB
R104NB
R105EB
R106EB
R200NB
R201NB
R202EB
R203EB
R204EB
R205NB
R206NB
R207EB
AM
IP
PM


Average Speed (mph) by Direction JT1-26
80
70
60
50
40
30
20
10
0
R1EB
R2EB
R3EB
R4EB
R5EB
R6EB
R7EB
R8NB
R9NB
R10NB
R11NB
R12NB
R13NB
R14NB
R15NB
R16NB
R17NB
R18NB
R19NB
R20NB
R21EB
R22EB
R23EB
R24EB
R25EB
R26NB
AM
IP
PM


Average Speed (mph) by Direction JT27-52
60
50
40
30
20
10
0
R27NB
R28NB
R29EB
R30EB
R31NB
R32NB
R33NB
R34NB
R35NB
R36EB
R37EB
R38EB
R39NB
R40NB
R41NB
R42NB
R43NB
R44EB
R45EB
R46EB
R47EB
R48NB
R49NB
R50EB
R51EB
R52EB
AM
IP
PM


Average Speed (mph) by Direction JT53-207
60
50
40
30
20
10
0
R53EB
R54EB
R55NB
R56NB
R57NB
R58NB
R59EB
R60NB
R61EB
R62EB
R63EB
R64EB
R101NB
R102NB
R103EB
R104NB
R105EB
R106EB
R200NB
R201NB
R202EB
R203EB
R204EB
R205NB
R206NB
R207EB
AM
IP
PM

Appendix C.3

JOURNEY TIME AVERAGE TRAVEL

TIME AND SPEED

JT	AM		IP		PM	
	Time (s)	mph	Time (s)	mph	Time (s)	mph
R1EB	380	67	391	65	404	63
R1WB	514	50	395	65	384	66
R2EB	444	64	442	64	452	62
R2WB	461	61	432	65	437	65
R3EB	505	64	524	62	597	54
R3WB	605	53	516	63	504	64
R4EB	390	63	392	63	394	63
R4WB	419	59	388	64	382	65
R5EB	384	57	377	58	382	57
R5WB	426	51	381	57	384	57
R6EB	480	51	412	59	450	54
R6WB	478	51	407	60	465	52
R7EB	534	57	527	58	523	58
R7WB	519	58	521	58	516	58
R8NB	377	57	351	61	364	59
R8SB	380	56	352	61	368	58
R9NB	964	32	556	56	779	40
R9SB	548	56	509	61	509	61
R10NB	1056	25	1095	24	1089	25
R10SB	1017	27	1073	25	996	27
R11NB	638	42	625	43	788	34
R11SB	802	33	640	42	672	40
R12NB	619	49	617	49	606	50
R12SB	642	47	628	49	609	50
R13NB	729	43	737	43	702	45
R13SB	749	42	772	41	740	43

JT	AM		IP		PM	
	Time (s)	mph	Time (s)	mph	Time (s)	mph
R14NB	534	44	549	43	533	44
R14SB	536	43	554	42	522	45
R15NB	766	41	812	39	882	36
R15SB	783	40	790	40	743	43
R16NB	522	42	524	41	509	43
R16SB	489	42	499	42	491	42
R17NB	825	22	529	35	512	36
R17SB	501	37	514	36	514	36
R18NB	726	33	729	32	803	29
R18SB	858	29	864	29	877	28
R19NB	524	43	519	43	512	44
R19SB	547	41	523	43	530	42
R20NB	353	39	348	40	363	38
R20SB	363	38	331	42	324	43
R21EB	623	39	614	39	776	31
R21WB	741	32	628	38	633	38
R22EB	687	45	682	45	673	45
R22WB	705	43	689	44	685	45
R23EB	630	42	636	42	641	41
R23WB	720	37	646	41	638	42
R24EB	399	67	409	65	395	67
R24WB	405	66	403	66	396	67
R25EB	381	61	390	60	391	59
R25WB	441	52	389	60	389	59
R26NB	759	41	775	40	753	41
R26SB	787	39	766	40	879	35
R27NB	802	40	787	40	786	40
R27SB	871	36	805	39	793	40

JT	AM		IP		PM	
	Time (s)	mph	Time (s)	mph	Time (s)	mph
R28NB	636	41	603	43	596	43
R28SB	616	42	597	43	598	43
R29EB	952	30	857	33	902	31
R29WB	858	33	841	33	885	32
R30EB	946	29	961	29	1000	28
R30WB	934	29	863	31	851	32
R31NB	508	46	570	41	488	48
R31SB	524	44	528	44	502	46
R32NB	470	42	475	42	460	43
R32SB	459	43	469	42	460	43
R33NB	689	40	659	42	640	43
R33SB	686	40	662	42	652	42
R34NB	656	26	568	30	571	30
R34SB	544	31	541	31	552	31
R35NB	802	37	793	37	794	37
R35SB	776	38	781	38	760	39
R36EB	1168	22	699	37	720	36
R36WB	734	36	736	36	705	37
R37EB	567	44	574	43	585	42
R37WB	639	39	598	41	640	39
R38EB	876	36	946	33	909	35
R38WB	941	33	938	34	862	36
R39NB	578	31	551	33	526	35
R39SB	482	38	537	34	503	36
R40NB	1639	17	942	29	1383	20
R40SB	988	28	911	30	1180	23
R41NB	690	42	712	41	681	43
R41SB	695	42	720	40	713	41

JT	AM		IP		PM	
	Time (s)	mph	Time (s)	mph	Time (s)	mph
R42NB	924	32	881	34	846	35
R42SB	905	33	901	33	854	35
R43NB	616	34	626	33	583	36
R43SB	618	34	637	33	633	33
R44EB	558	39	584	37	549	40
R44WB	539	40	587	37	545	40
R45EB	814	36	810	36	775	37
R45WB	820	35	826	35	801	36
R46EB	781	37	815	35	819	35
R46WB	796	36	797	36	760	38
R47EB	737	36	723	36	677	39
R47WB	691	38	711	37	690	38
R48NB	778	42	771	43	802	41
R48SB	798	41	784	42	776	43
R49NB	534	37	514	38	510	38
R49SB	522	37	523	37	493	40
R50EB	630	32	650	31	639	32
R50WB	833	24	635	31	609	32
R51EB	728	31	704	32	706	32
R51WB	732	31	715	32	696	33
R52EB	424	36	445	34	412	37
R52WB	432	35	453	34	440	35
R53EB	525	23	541	23	602	20
R53WB	511	24	544	22	567	21
R54EB	298	42	294	42	291	43
R54WB	312	40	305	41	301	41
R55NB	532	24	537	24	580	22
R55SB	499	24	535	23	607	20

JT	AM		IP		PM	
	Time (s)	mph	Time (s)	mph	Time (s)	mph
R56NB	602	22	580	23	595	22
R56SB	666	22	620	23	617	24
R57NB	643	25	607	26	663	24
R57SB	714	23	633	26	703	23
R58NB	696	18	559	22	872	14
R58SB	853	15	649	19	972	13
R59EB	536	31	498	33	563	30
R59WB	496	34	478	35	479	35
R60NB	1026	20	872	23	956	21
R60SB	955	22	887	23	941	22
R61EB	2253	14	1652	19	2494	12
R61WB	2358	13	1747	18	2228	14
R62EB	2322	12	1710	16	2459	11
R62WB	2081	12	1644	16	2808	9
R63EB	1336	13	902	19	1302	13
R63WB	1502	12	872	20	1132	16
R64EB	601	28	623	27	605	27
R64WB	670	26	656	26	624	28
R101NB	357	28	347	29	342	29
R101SB	412	24	389	26	468	21
R102NB	591	24	615	23	575	25
R102SB	653	21	768	18	664	21
R103EB	382	19	360	21	353	21
R103WB	371	19	402	17	469	15
R104NB	737	21	844	18	841	18
R104SB	583	26	601	26	542	28
R105EB	504	18	466	19	462	20
R105WB	447	20	425	21	413	22

JT	AM		IP		PM	
	Time (s)	mph	Time (s)	mph	Time (s)	mph
R106EB	895	24	803	27	957	23
R106WB	780	27	752	28	838	25
R200NB	702	23	710	23	673	24
R200SB	799	21	703	23	737	22
R201NB	1041	29	1005	30	984	31
R201SB	1046	29	1028	30	1002	31
R202EB	590	37	590	37	555	40
R202WB	588	38	594	37	555	40
R203EB	684	38	784	33	752	34
R203WB	649	40	757	34	501	52
R204EB	753	34	752	34	778	33
R204WB	865	30	782	33	771	33
R205NB	392	34	412	32	394	34
R205SB	364	37	396	34	377	35
R206NB	328	29	330	29	312	31
R206SB	314	31	309	31	323	30
R207EB	617	28	674	25	593	29
R207WB	596	29	624	27	594	29

Appendix D

ATC DATA SUMMARY

Appendix D.1

ORIGINAL AND REVISED NUMBER OF ATC OBSERVATIONS (SCTM DATA COLLECTION 2016)

Site Number	Original Number of Observations				Revised Number of Observations				Removed Number of Observations			
	Direction 1		Direction 2		Direction 1		Direction 2		Direction 1		Direction 2	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	10	10	10	10	8	9	5	6	2	1	5	4
2	13	13	13	13	11	11	11	5	2	2	2	8
3	10	10	10	10	9	7	9	9	1	3	1	1
4	10	10	10	10	9	9	9	6	1	1	1	4
5	9	9	9	9	3	3	8	4	6	6	1	5
6	10	10	10	10	9	9	9	5	1	1	1	5
7	11	11	11	11	8	5	9	8	3	6	2	3
8	9	9	9	9	8	8	9	8	1	1	0	1
9	8	8	8	8	8	7	8	8	0	1	0	0
10	10	10	10	10	9	9	9	4	1	1	1	6
11	11	11	11	11	9	5	8	6	2	6	3	5
12	11	11	11	11	9	9	9	8	2	2	2	3
13	9	8	9	8	7	6	7	6	2	2	2	2
14	10	9	10	9	10	9	10	9	0	0	0	0
15	11	11	11	11	10	10	10	10	1	1	1	1
16	8	8	8	8	8	8	8	8	0	0	0	0
17	8	8	8	8	8	8	8	7	0	0	0	1
18	9	8	9	8	9	7	9	7	0	1	0	1
19	9	10	9	10	7	8	7	7	2	2	2	3
20	8	9	8	9	6	4	6	7	2	5	2	2
21	8	8	8	8	8	7	8	8	0	1	0	0
22	10	10	10	10	9	9	9	6	1	1	1	4
23	7	6	7	6	6	5	6	5	1	1	1	1
24	9	9	9	9	7	7	6	7	2	2	3	2

Site Number	Original Number of Observations				Revised Number of Observations				Removed Number of Observations			
	Direction 1		Direction 2		Direction 1		Direction 2		Direction 1		Direction 2	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
25	10	10	10	10	8	8	9	4	2	2	1	6
26	7	7	7	7	4	4	3	4	3	3	4	3
27	9	9	10	10	9	8	9	9	0	1	1	1
28	1	0	9	9	0	0	8	8	1	0	1	1
29	8	9	1	5	7	8	0	5	1	1	1	0
30	11	11	11	11	9	9	9	9	2	2	2	2
31	11	11	11	11	9	9	9	9	2	2	2	2
32	11	11	11	11	9	9	9	9	2	2	2	2
33	10	10	10	10	7	7	5	9	3	3	5	1
34	8	8	8	8	8	8	8	8	0	0	0	0
35	8	8	8	8	8	4	8	8	0	4	0	0
36	8	8	8	8	6	6	6	4	2	2	2	4
37	8	8	8	8	6	8	7	8	2	0	1	0
38	8	8	8	8	8	8	8	8	0	0	0	0
39	7	7	7	7	4	5	5	3	3	2	2	4
40	10	10	10	10	3	9	5	4	7	1	5	6
41	8	8	8	8	8	8	8	8	0	0	0	0
42	8	8	8	8	8	8	8	8	0	0	0	0
43	11	11	11	11	10	10	10	10	1	1	1	1
44	12	12	12	12	11	11	11	11	1	1	1	1
45	16	16	16	16	8	7	11	9	8	9	5	7
46	13	13	13	13	12	12	12	8	1	1	1	5
47	12	12	12	12	9	10	11	11	3	2	1	1
48	12	12	12	12	11	11	11	10	1	1	1	2

Site Number	Original Number of Observations				Revised Number of Observations				Removed Number of Observations			
	Direction 1		Direction 2		Direction 1		Direction 2		Direction 1		Direction 2	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
49	12	12	12	12	11	7	11	9	1	5	1	3
50	10	10	10	10	9	9	8	8	1	1	2	2
51	9	9	9	9	8	7	9	9	1	2	0	0
52	20	20	20	20	19	12	12	13	1	8	8	7
53	9	9	9	9	8	9	5	9	1	0	4	0
54	30	30	30	30	23	23	23	24	7	7	7	6
55	9	9	9	9	3	7	7	8	6	2	2	1
56	9	9	9	9	8	8	8	9	1	1	1	0
57	14	14	14	14	13	12	13	12	1	2	1	2
58	10	10	10	10	10	10	7	10	0	0	3	0
59	11	11	11	11	10	9	10	9	1	2	1	2
60	8	7	8	7	8	5	8	3	0	2	0	4
61	13	14	13	14	11	12	11	11	2	2	2	3
62	12	12	12	12	11	11	11	11	1	1	1	1
63	8	8	8	8	7	7	7	7	1	1	1	1
64	11	11	11	11	7	8	9	9	4	3	2	2
65	11	11	11	11	8	10	5	10	3	1	6	1
66	8	8	8	8	4	6	8	5	4	2	0	3
67	8	8	8	8	8	4	7	8	0	4	1	0
68	16	16	16	16	7	5	13	12	9	11	3	4
69	9	9	9	9	7	6	7	8	2	3	2	1
70	11	11	11	11	7	8	10	5	4	3	1	6
71	8	8	8	8	7	5	7	8	1	3	1	0
72	9	9	9	9	8	5	9	9	1	4	0	0

Site Number	Original Number of Observations				Revised Number of Observations				Removed Number of Observations			
	Direction 1		Direction 2		Direction 1		Direction 2		Direction 1		Direction 2	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
73	9	9	9	9	7	8	9	4	2	1	0	5
74	8	8	8	8	6	5	7	5	2	3	1	3
75	8	8	8	8	8	8	7	8	0	0	1	0
76	18	17	18	17	15	14	14	14	3	3	4	3
77	10	10	10	10	9	8	9	9	1	2	1	1
78	8	7	8	7	7	7	8	5	1	0	0	2
79	9	9	9	9	4	4	8	7	5	5	1	2
80	10	10	10	10	9	6	8	9	1	4	2	1
81	8	8	8	8	5	8	6	6	3	0	2	2
82	16	16	16	16	15	15	15	14	1	1	1	2
83	12	12	12	12	11	11	11	10	1	1	1	2
84	7	7	7	7	6	4	7	4	1	3	0	3
85	12	12	12	12	10	10	10	9	2	2	2	3
86	12	12	12	12	10	9	10	9	2	3	2	3
87	6	5	6	5	4	3	4	4	2	2	2	1
88	11	11	11	11	9	5	9	9	2	6	2	2
89	12	12	12	12	10	9	10	9	2	3	2	3
90	11	11	11	11	9	8	9	8	2	3	2	3
91	10	10	10	10	9	8	7	7	1	2	3	3
92	10	10	10	10	9	9	5	5	1	1	5	5
93	8	8	8	8	5	7	6	8	3	1	2	0
94	8	8	8	8	7	7	8	7	1	1	0	1
95	10	10	10	10	8	7	8	7	2	3	2	3
96	13	13	13	13	6	11	8	10	7	2	5	3

Site Number	Original Number of Observations				Revised Number of Observations				Removed Number of Observations			
	Direction 1		Direction 2		Direction 1		Direction 2		Direction 1		Direction 2	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
97	13	13	13	13	11	11	8	11	2	2	5	2
98	8	8	8	8	8	8	8	8	0	0	0	0
99	15	16	15	16	11	13	12	13	4	3	3	3
100	8	8	8	8	6	8	8	7	2	0	0	1
101	8	8	8	8	6	6	8	7	2	2	0	1
102	12	12	12	12	9	9	10	9	3	3	2	3
103	14	14	14	14	12	12	12	12	2	2	2	2
104	17	17	17	17	13	15	13	14	4	2	4	3
105	9	9	9	9	2	4	7	4	7	5	2	5
106	10	10	10	10	6	8	8	6	4	2	2	4
107	10	10	10	10	4	7	8	8	6	3	2	2
108	11	11	11	11	9	4	9	6	2	7	2	5
109	11	11	11	11	7	8	8	8	4	3	3	3
110	1	0	1	0	0	0	0	0	1	0	1	0
111	12	12	12	12	9	8	10	10	3	4	2	2
112	12	12	12	12	10	9	9	10	2	3	3	2
113	11	11	11	11	9	9	9	7	2	2	2	4
114	14	14	14	14	8	9	9	7	6	5	5	7
115	14	14	14	14	12	12	12	12	2	2	2	2
116	10	10	10	10	9	9	9	8	1	1	1	2
117	9	10	9	9	8	9	8	7	1	1	1	2
118	8	8	8	8	8	7	8	6	0	1	0	2
119	14	14	14	14	12	12	12	12	2	2	2	2
120	11	12	11	12	9	10	9	10	2	2	2	2

Site Number	Original Number of Observations				Revised Number of Observations				Removed Number of Observations			
	Direction 1		Direction 2		Direction 1		Direction 2		Direction 1		Direction 2	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
121	14	14	14	14	9	12	12	12	5	2	2	2
122	8	7	8	7	7	7	8	4	1	0	0	3
123	8	8	8	8	7	7	8	8	1	1	0	0
124	14	14	14	14	12	9	9	12	2	5	5	2
125	14	14	14	14	12	12	12	12	2	2	2	2
126	14	14	14	14	12	12	12	12	2	2	2	2
127	14	14	14	14	12	12	12	12	2	2	2	2
128	8	8	8	8	8	8	8	8	0	0	0	0
129	14	14	14	14	8	12	11	12	6	2	3	2
130	14	14	14	14	12	12	12	12	2	2	2	2
131	11	11	11	11	9	10	9	10	2	1	2	1
132	9	9	9	9	5	7	6	8	4	2	3	1
133	8	8	8	8	8	7	8	8	0	1	0	0
134	14	14	14	14	11	8	12	12	3	6	2	2
135	12	12	12	12	10	10	11	11	2	2	1	1
136	11	11	11	11	4	5	6	6	7	6	5	5
137	9	9	9	9	9	9	6	7	0	0	3	2
138	9	9	9	9	8	7	7	9	1	2	2	0
139	8	8	8	8	8	8	8	8	0	0	0	0
140	5	6	5	6	5	5	5	6	0	1	0	0
141	10	10	10	10	8	9	8	9	2	1	2	1
142	9	9	9	9	8	9	9	9	1	0	0	0
143	10	9	6	6	3	7	5	3	7	2	1	3
144	9	9	9	9	5	9	6	6	4	0	3	3

Site Number	Original Number of Observations				Revised Number of Observations				Removed Number of Observations			
	Direction 1		Direction 2		Direction 1		Direction 2		Direction 1		Direction 2	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
145	9	9	9	9	9	9	9	7	0	0	0	2
146	9	9	9	9	7	8	7	9	2	1	2	0
147	10	10	10	10	8	8	7	9	2	2	3	1
148	10	10	10	10	9	9	8	9	1	1	2	1
149	10	10	10	10	6	10	7	10	4	0	3	0
150	9	9	9	9	5	7	9	9	4	2	0	0
151	9	9	9	9	8	7	6	9	1	2	3	0
152	10	10	10	10	8	4	9	9	2	6	1	1
153	8	9	8	9	8	8	4	8	0	1	4	1
154	10	10	10	10	4	10	7	10	6	0	3	0
155	8	8	8	8	8	8	8	8	0	0	0	0
156	8	8	8	8	7	2	7	8	1	6	1	0
157	4	4	4	4	4	2	4	4	0	2	0	0
158	8	8	8	8	7	8	8	8	1	0	0	0
159	15	15	15	15	9	10	8	10	6	5	7	5
160	11	11	11	11	6	9	7	6	5	2	4	5
161	11	11	11	11	7	7	7	8	4	4	4	3
162	11	11	11	11	4	7	8	8	7	4	3	3
163	10	10	10	10	8	7	8	10	2	3	2	0
164	8	8	8	8	8	8	8	8	0	0	0	0
165	10	10	10	10	9	8	10	10	1	2	0	0
166	11	11	11	11	5	9	8	9	6	2	3	2
167	18	18	18	18	8	12	12	12	10	6	6	6
168	11	11	11	11	9	9	5	5	2	2	6	6

Site Number	Original Number of Observations				Revised Number of Observations				Removed Number of Observations			
	Direction 1		Direction 2		Direction 1		Direction 2		Direction 1		Direction 2	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
169	10	10	10	10	10	8	10	10	0	2	0	0
170	10	10	10	10	8	7	6	10	2	3	4	0
171	8	8	8	8	8	8	7	8	0	0	1	0
172	10	10	10	10	9	9	9	10	1	1	1	0
173	16	16	16	16	15	15	15	12	1	1	1	4
174	8	8	8	8	8	8	6	8	0	0	2	0
175	10	10	10	10	8	9	8	9	2	1	2	1
176	10	10	10	10	8	5	8	8	2	5	2	2
177	10	10	10	10	9	9	9	9	1	1	1	1
178	10	10	10	10	2	3	4	7	8	7	6	3
179	10	10	10	10	9	7	7	9	1	3	3	1
180	10	10	10	10	8	9	9	9	2	1	1	1
181	10	10	10	10	8	9	6	9	2	1	4	1
182	10	10	10	10	6	9	8	9	4	1	2	1
183	8	8	8	8	8	8	8	8	0	0	0	0
184	10	10	10	10	7	5	9	10	3	5	1	0
185	10	10	10	10	10	10	10	10	0	0	0	0
186	8	8	8	8	8	8	8	8	0	0	0	0
187	12	12	12	12	10	10	10	10	2	2	2	2
188	8	8	8	8	8	8	8	8	0	0	0	0
189	12	12	12	12	7	10	10	10	5	2	2	2
190	12	12	12	12	9	9	9	10	3	3	3	2
191	8	8	8	8	8	8	8	8	0	0	0	0
192	12	12	12	12	10	8	10	10	2	4	2	2

Site Number	Original Number of Observations				Revised Number of Observations				Removed Number of Observations			
	Direction 1		Direction 2		Direction 1		Direction 2		Direction 1		Direction 2	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
193	8	8	8	8	7	8	8	7	1	0	0	1
194	12	12	12	12	9	10	10	10	3	2	2	2
195	12	12	12	12	10	9	8	10	2	3	4	2
196	10	10	10	10	5	10	10	10	5	0	0	0
197	10	10	10	10	6	6	6	10	4	4	4	0
198	10	10	10	10	9	8	10	10	1	2	0	0
199	10	10	10	10	9	10	10	10	1	0	0	0
200	9	9	9	9	9	9	7	9	0	0	2	0
201	10	10	10	10	10	10	10	10	0	0	0	0
202	10	10	10	10	10	10	10	7	0	0	0	3
203	9	9	9	9	8	9	4	6	1	0	5	3
204	9	9	9	9	9	9	9	4	0	0	0	5
205	10	10	10	10	7	10	10	10	3	0	0	0
206	9	9	9	9	3	9	9	9	6	0	0	0
207	12	12	12	12	10	8	10	10	2	4	2	2
208	9	9	9	9	8	9	9	9	1	0	0	0
209	9	9	9	9	9	9	4	9	0	0	5	0
210	9	9	9	9	9	9	8	7	0	0	1	2
211	8	8	8	8	3	6	6	4	5	2	2	4
212	8	8	8	8	6	8	8	8	2	0	0	0
213	9	9	9	9	6	7	7	4	3	2	2	5
214	11	11	11	11	9	3	10	9	2	8	1	2
215	10	10	10	10	9	8	9	9	1	2	1	1
216	7	7	7	7	3	3	2	2	4	4	5	5

Site Number	Original Number of Observations				Revised Number of Observations				Removed Number of Observations			
	Direction 1		Direction 2		Direction 1		Direction 2		Direction 1		Direction 2	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
217	10	10	10	10	5	9	5	7	5	1	5	3
218	15	14	15	14	13	12	13	12	2	2	2	2
219	8	7	7	6	3	1	6	4	5	6	1	2
220	8	8	8	8	8	7	8	8	0	1	0	0
221	16	16	16	16	12	7	12	12	4	9	4	4
222	11	11	11	11	7	4	6	5	4	7	5	6
225 - 05.05.2016	16	16	16	16	9	10	6	7	7	6	10	9
226	7	7	7	7	7	7	7	4	0	0	0	3
227	11	11	11	11	2	11	11	11	9	0	0	0
228	8	8	8	8	7	8	8	7	1	0	0	1
229	8	8	8	8	8	6	5	6	0	2	3	2

Appendix D.2

ATC AVERAGE TRAFFIC FLOWS BY PEAK HOUR

SMV ID	Ref	Site Location	Dir	AM	IP	PM
1	1	Bildeston B1115	NB	179	96	146
2	1	Bildeston B1115	SB	164	88	211
3	2	Glemsford Low St	NB	73	36	33
4	2	Glemsford Low St	SB	36	39	74
5	3	Hadleigh A1071 Ipswich Road	EB	422	310	475
6	3	Hadleigh A1071 Ipswich Road	WB	428	306	484
7	4	Hadleigh B1070 Benton Street	NB	217	140	218
8	4	Hadleigh B1070 Benton Street	SB	217	139	209
9	5	Hadleigh A1141	NB	251	212	354
10	5	Hadleigh A1141	SB	307	210	272
11	6	Hadleigh A1071	NB	237	194	353
12	6	Hadleigh A1071	SB	327	205	269
13	7	East Bergholt B1068	EB	147	80	116
14	7	East Bergholt B1068	WB	124	75	149
15	8	Ipswich A137	NB	558	293	426
16	8	Ipswich A137	SB	382	281	720
17	9	Ipswich A1071	EB	393	380	514
18	9	Ipswich A1071	WB	494	387	599
19	10	Lavenham A1141 Bury Road	NB	111	73	82
20	10	Lavenham A1141 Bury Road	SB	80	75	136
21	11	Long Melford A1092 High Street	NB	156	115	111
22	11	Long Melford A1092 High Street	SB	99	119	160
23	12	Long Melford B1064	NB	333	339	469
24	12	Long Melford B1064	SB	461	349	416
25	13	Long Melford A1092 Windmill Hill	EB	467	307	389
26	13	Long Melford A1092 Windmill Hill	WB	294	295	453
27	14	Brantham A137	NB	644	383	625
28	14	Brantham A137	SB	538	376	757
29	15	Brantham Bergholt Road	EB	199	137	249
30	15	Brantham Bergholt Road	WB	228	127	166
31	16	Nayland A134 Horkesley Road	NB	409	288	511
32	16	Nayland A134 Horkesley Road	SB	523	283	417
33	17	Alpheton A134	NB	545	281	357

SMV ID	Ref	Site Location	Dir	AM	IP	PM
34	17	Alpheton A134	SB	298	282	520
35	18	Sudbury A134	NB	471	289	343
36	18	Sudbury A134	SB	311	258	453
37	19	Sudbury B1064	NB	386	445	657
38	19	Sudbury B1064	SB	602	427	476
39	20	Sudbury Waldingfield Road	EB	223	234	372
40	20	Sudbury Waldingfield Road	WB	409	255	315
41	21	Sudbury A134	EB	493	410	590
42	21	Sudbury A134	WB	540	378	490
43	22	Sudbury B1508 Bures Road	NB	210	148	249
44	22	Sudbury B1508 Bures Road	SB	229	152	203
45	23	Sudbury A131 Ballingdon Street	EB	610	511	712
46	23	Sudbury A131 Ballingdon Street	WB	579	488	638
47	24	Sudbury A134	EB	683	604	738
48	24	Sudbury A134	WB	736	615	784
49	25	Sudbury A134 Northern Road	NB	714	527	569
50	25	Sudbury A134 Northern Road	SB	689	566	527
51	26	Sudbury B1115 Waldingfield Road	EB	267	268	440
52	26	Sudbury B1115 Waldingfield Road	WB	512	283	480
53	27	Sudbury A131 Girling Street	NB	3	1	4
54	27	Sudbury A131 Girling Street	SB	902	765	930
55	28	Sudbury A131 Gainsborough Street	EB	0	0	0
56	28	Sudbury A131 Gainsborough Street	WB	865	729	884
57	29	Sudbury A131	NB	780	753	881
58	29	Sudbury A131	SB	0	2	6
59	30	Sudbury Newton Road	EB	305	327	466
60	30	Sudbury Newton Road	WB	478	366	378
61	31	Sudbury Gt.Cornard	NB	465	336	387
62	31	Sudbury Gt.Cornard	SB	360	456	671
63	32	Sudbury A131 Melford Road	NB	497	458	612
64	32	Sudbury A131 Melford Road	SB	602	444	599
65	33	Sudbury Friars Street	EB	224	181	257
66	33	Sudbury Friars Street	WB	217	242	315

SMV ID	Ref	Site Location	Dir	AM	IP	PM
67	34	Mildenhall A11	EB	1170	1240	2049
68	34	Mildenhall A11	WB	1689	1213	1265
69	35	Mildenhall A1101 Mildenhall Road	EB	139	111	131
70	35	Mildenhall A1101 Mildenhall Road	WB	184	121	179
71	36	Mildenhall A11 London Road	EB	864	933	1496
72	36	Mildenhall A11 London Road	WB	1322	926	941
73	37	Mildenhall A1065	NB	307	345	513
74	37	Mildenhall A1065	SB	409	336	431
75	38	Mildenhall A1101	NB	596	374	657
76	38	Mildenhall A1101	SB	584	391	524
77	39	Brandon A1065 Brandon Road	NB	292	342	526
78	39	Brandon A1065 Brandon Road	SB	482	333	329
79	40	Lakenheath Station Road	NB	196	162	326
80	40	Lakenheath Station Road	SB	255	163	184
81	41	Newmarket A142 Fordham Road	NB	724	589	1007
82	41	Newmarket A142 Fordham Road	SB	574	575	810
83	42	Newmarket A142 Fordham Road	NB	681	651	1126
84	42	Newmarket A142 Fordham Road	SB	759	549	761
85	43	Newmarket A1304 Bury Road	NB	393	385	600
86	43	Newmarket A1304 Bury Road	SB	571	410	567
87	44	Newmarket Fred Archer Way	NB	435	377	387
88	44	Newmarket Fred Archer Way	SB	403	435	523
89	45	Newmarket Old Station Road	EB	363	277	338
90	45	Newmarket Old Station Road	WB	266	291	412
91	46	Newmarket A1304 Barbara Stradbroke Avenue	EB	453	427	908
92	46	Newmarket A1304 Barbara Stradbroke Avenue	WB	804	352	404
93	47	Newmarket Exning Road	NB	649	307	409
94	47	Newmarket Exning Road	SB	247	253	549
95	48	Newmarket Ashley Road	EB	144	178	333
96	48	Newmarket Ashley Road	WB	349	180	156
97	49	Moulton Kennett Road or Moulton Road	NB	122	71	98
98	49	Moulton Kennett Road or Moulton Road	SB	145	62	91
99	50	RAF Mildenhall A1101 Mildenhall Drove	NB	92	95	186

SMV ID	Ref	Site Location	Dir	AM	IP	PM
100	50	RAF Mildenhall A1101 Mildenhall Drove	SB	152	89	117
101	51	Debenham B1077 Aspall Road	NB	107	66	89
102	51	Debenham B1077 Aspall Road	SB	108	62	107
103	52	Earl Stonham A1120	EB	138	110	162
104	52	Earl Stonham A1120	WB	195	130	193
105	53	Eye B1077	EB	261	170	276
106	53	Eye B1077	WB	242	166	192
107	54	Eye Yaxley Road	EB	91	56	81
108	54	Eye Yaxley Road	WB	94	61	93
109	55	Eye B1117 Hoxne Road	EB	91	68	123
110	55	Eye B1117 Hoxne Road	WB	114	63	81
111	56	Eye Cranley Green Road	NB	224	114	182
112	56	Eye Cranley Green Road	SB	195	119	203
113	57	Helmingham B1077	NB	148	84	179
114	57	Helmingham B1077	SB	239	83	139
115	58	Harleston B1116 Harleston Road	NB	250	178	243
116	58	Harleston B1116 Harleston Road	SB	183	179	261
117	59	Claydon Bramford Road	NB	477	271	415
118	59	Claydon Bramford Road	SB	323	216	401
119	60	Claydon Bramford Road	EB	811	538	885
120	60	Claydon Bramford Road	WB	745	496	710
121	61	Stanton Street A1088	NB	318	188	422
122	61	Stanton Street A1088	SB	455	191	313
123	62	Brockford Street A140 The Street	NB	594	432	700
124	62	Brockford Street A140 The Street	SB	729	441	589
125	63	Earl Stonham A140	NB	639	502	831
126	63	Earl Stonham A140	SB	851	497	664
127	64	Coddenham B1078 High Street	EB	180	85	162
128	64	Coddenham B1078 High Street	WB	127	89	173
129	65	Needham Market Barking Road	EB	271	158	242
130	65	Needham Market Barking Road	WB	239	153	280
131	66	Needham Market Lower Street	NB	283	208	289
132	66	Needham Market Lower Street	SB	252	205	270

SMV ID	Ref	Site Location	Dir	AM	IP	PM
133	67	Stuston A143 Old Bury Road	EB	248	208	318
134	67	Stuston A143 Old Bury Road	WB	284	209	269
135	68	East End A1120	EB	196	129	149
136	68	East End A1120	WB	182	118	192
137	69	Redgrave B1113	NB	103	61	98
138	69	Redgrave B1113	SB	87	59	110
139	70	Stowmarket Stowmarket Road	EB	406	329	456
140	70	Stowmarket Stowmarket Road	WB	419	318	427
141	71	Stowmarket A1120	NB	493	272	514
142	71	Stowmarket A1120	SB	584	271	397
143	72	Stowmarket B1115	EB	390	236	323
144	72	Stowmarket B1115	WB	373	233	333
145	73	Stowmarket Newton Road	NB	117	105	186
146	73	Stowmarket Newton Road	SB	194	103	112
147	74	Stowmarket B1115 Finborough Rd	EB	141	100	117
148	74	Stowmarket B1115 Finborough Rd	WB	125	112	156
149	75	Stowmarket A1120	NB	777	475	783
150	75	Stowmarket A1120	SB	715	442	722
151	76	Stowmarket A1308 Needham Rd	NB	836	523	732
152	76	Stowmarket A1308 Needham Rd	SB	653	498	861
153	77	Stowmarket A1308 Gipping Way	NB	458	382	451
154	77	Stowmarket A1308 Gipping Way	SB	509	452	527
155	78	Stowmarket A1038 Bury Road	NB	448	437	549
156	78	Stowmarket A1038 Bury Road	SB	604	506	743
157	79	Stowmarket Stowupland Road	NB	110	149	164
158	79	Stowmarket Stowupland Road	SB	161	138	144
159	80	Stowmarket B1115 Finborough Road	EB	365	242	226
160	80	Stowmarket B1115 Finborough Road	WB	312	311	513
161	81	Stradbroke B1117 Laxfield Rd	EB	109	62	102
162	81	Stradbroke B1117 Laxfield Rd	WB	111	66	95
163	82	Beyton Thurston Rd	NB	265	123	221
164	82	Beyton Thurston Rd	SB	251	111	229
165	83	Woolpit Unnamed Road	NB	309	184	306

SMV ID	Ref	Site Location	Dir	AM	IP	PM
166	83	Woolpit Unnamed Road	SB	343	199	341
167	84	Barningham B1111 Stanton Rd	NB	118	130	268
168	84	Barningham B1111 Stanton Rd	SB	221	125	140
169	85	Bury St Edmunds A134 Sicklesmere Road	NB	347	459	769
170	85	Bury St Edmunds A134 Sicklesmere Road	SB	544	436	434
171	86	Bury St Edmunds A143 Horringer Road	NB	284	239	370
172	86	Bury St Edmunds A143 Horringer Road	SB	411	255	258
173	87	Bury St Edmunds A1302 Parkway	NB	999	768	633
174	87	Bury St Edmunds A1302 Parkway	SB	768	744	764
175	88	Bury St Edmunds A1302 Cullum Road	NB	294	460	397
176	88	Bury St Edmunds A1302 Cullum Road	SB	824	431	347
177	89	Bury St Edmunds A134 Rougham Road	EB	866	1047	1115
178	89	Bury St Edmunds A134 Rougham Road	WB	1329	1038	1271
179	90	Bury St Edmunds A1302 Out Risbygate	EB	485	508	625
180	90	Bury St Edmunds A1302 Out Risbygate	WB	618	506	534
181	91	Bury St Edmunds A1302 Newmarket Road	NB	409	468	750
182	91	Bury St Edmunds A1302 Newmarket Road	SB	650	439	554
183	92	Bury St Edmunds Fornham Lane	NB	460	226	365
184	92	Bury St Edmunds Fornham Lane	SB	394	224	434
185	93	Bury St Edmunds Tut Hill	NB	643	302	611
186	93	Bury St Edmunds Tut Hill	SB	598	300	581
187	94	Bury St Edmunds Westley Road	EB	528	170	327
188	94	Bury St Edmunds Westley Road	WB	310	170	330
189	95	Bury St Edmunds A1101	NB	674	601	658
190	95	Bury St Edmunds A1101	SB	561	585	767
191	96	Bury St Edmunds B1106 Thetford Road	NEB	312	339	688
192	96	Bury St Edmunds B1106 Thetford Road	SWB	620	297	333
193	97	Bury St Edmunds Mildenhall Road	NB	336	280	283
194	97	Bury St Edmunds Mildenhall Road	SB	403	310	423
195	98	Bury St Edmunds A134	NB	462	406	729
196	98	Bury St Edmunds A134	SB	736	374	503
197	99	Bury St Edmunds B1106 Barton Bottom	EB	134	117	336
198	99	Bury St Edmunds B1106 Barton Bottom	WB	372	113	141

SMV ID	Ref	Site Location	Dir	AM	IP	PM
199	100	Bury St Edmunds A134 Compiegne Way	NB	882	756	1080
200	100	Bury St Edmunds A134 Compiegne Way	SB	926	712	931
201	101	Bury St Edmunds A143	NB	356	476	923
202	101	Bury St Edmunds A143	SB	911	470	474
203	102	Bury St Edmunds Mount Road	EB	398	221	489
204	102	Bury St Edmunds Mount Road	WB	500	206	281
205	103	Horninger Poulters Lane	NEB	460	241	328
206	103	Horninger Poulters Lane	SWB	303	224	375
207	104	Bury St Edmunds Unnamed Road	NB	303	134	307
208	104	Bury St Edmunds Unnamed Road	SB	439	108	193
209	105	Bury St Edmunds Hardwick Lane	EB	398	414	567
210	105	Bury St Edmunds Hardwick Lane	WB	668	376	322
211	106	Bury St Edmunds Hospital Road	EB	259	248	377
212	106	Bury St Edmunds Hospital Road	WB	445	226	287
213	107	Bury St Edmunds Flemyng Road	NB	400	138	177
214	107	Bury St Edmunds Flemyng Road	SB	216	149	310
215	108	Bury St Edmunds A1302 Tayfen Road	EB	587	556	563
216	108	Bury St Edmunds A1302 Tayfen Road	WB	859	624	541
217	109	Bury St Edmunds Mustow Street	EB	507	411	449
218	109	Bury St Edmunds Mustow Street	WB	273	341	505
219	110	Bury St Edmunds Shakers Lane	NB	0	0	0
220	110	Bury St Edmunds Shakers Lane	SB	0	0	0
221	111	Bury St Edmunds Hollow Road	NB	199	214	583
222	111	Bury St Edmunds Hollow Road	SB	499	186	177
223	112	Bury St Edmunds Orttewell Road	NB	454	482	674
224	112	Bury St Edmunds Orttewell Road	SB	654	461	542
225	113	Clare A1092 Cavendish Road	EB	197	172	304
226	113	Clare A1092 Cavendish Road	WB	292	164	192
227	114	Clare A1092	EB	144	142	308
228	114	Clare A1092	WB	260	136	138
229	115	Wickhambrook A143	EB	342	196	293
230	115	Wickhambrook A143	WB	310	184	309
231	116	Thetford A1088	NB	264	150	326

SMV ID	Ref	Site Location	Dir	AM	IP	PM
232	116	Thetford A1088	SB	295	153	274
233	117	Ixworth Clint Hill	NB	25	14	15
234	117	Ixworth Clint Hill	SB	12	16	28
235	118	Great Bradley B1061	NB	246	89	109
236	118	Great Bradley B1061	SB	111	91	250
237	119	Kedington B1061 Haverhill Road	NB	277	132	172
238	119	Kedington B1061 Haverhill Road	SB	161	136	286
239	120	Haverhill A143 Haverhill Rd	EB	367	285	481
240	120	Haverhill A143 Haverhill Rd	WB	504	285	424
241	121	Haverhill A143 Ehringshausen Way	NB	365	408	517
242	121	Haverhill A143 Ehringshausen Way	SB	365	348	408
243	122	Haverhill A1017	EB	156	159	423
244	122	Haverhill A1017	WB	331	148	155
245	123	Haverhill A1017	NB	342	271	229
246	123	Haverhill A1017	SB	258	318	453
247	124	Haverhill Queens Street	NB	177	77	111
248	124	Haverhill Queens Street	SB	101	84	246
249	125	Haverhill A1307 Withersfield	EB	493	428	687
250	125	Haverhill A1307 Withersfield	WB	494	445	582
251	126	Haverhill A1307	EB	334	388	697
252	126	Haverhill A1307	WB	489	310	372
253	127	Haverhill A143 Rowley Hill	EB	130	171	293
254	127	Haverhill A143 Rowley Hill	WB	285	169	178
255	128	Haverhill A1307	EB	487	458	1142
256	128	Haverhill A1307	WB	901	434	541
257	129	Wixoe A1092	NB	136	143	347
258	129	Wixoe A1092	SB	302	135	144
259	130	Haverhill Bumpstead Road	NB	258	262	473
260	130	Haverhill Bumpstead Road	SB	455	259	295
261	131	Haverhill Burton End	EB	262	164	213
262	131	Haverhill Burton End	WB	216	146	290
263	132	Hundon Folly Road	NB	50	41	103
264	132	Hundon Folly Road	SB	85	37	44

SMV ID	Ref	Site Location	Dir	AM	IP	PM
265	133	Ixworth A143	NB	621	543	1097
266	133	Ixworth A143	SB	996	553	717
267	134	Wickhambrook B1063	NB	64	49	109
268	134	Wickhambrook B1063	SB	99	49	65
269	135	Stanton A143 Bury Rd	EB	291	303	528
270	135	Stanton A143 Bury Rd	WB	495	300	320
271	136	Aldeburgh Aldeburgh Road	EB	103	199	198
272	136	Aldeburgh Aldeburgh Road	WB	218	193	147
273	137	Blythburgh A12 Station Rd	NB	401	389	517
274	137	Blythburgh A12 Station Rd	SB	419	367	400
275	138	Earl Soham A1120 Mill Hill	EB	178	106	182
276	138	Earl Soham A1120 Mill Hill	WB	210	115	176
277	139	Felixstowe A154 Candlet Road	NB	641	598	918
278	139	Felixstowe A154 Candlet Road	SB	859	554	603
279	140	Felixstowe A154 Walton Avenue	EB	314	272	395
280	140	Felixstowe A154 Walton Avenue	WB	335	313	392
281	141	Felixstowe A1021 Beatrice Ave	NB	400	279	312
282	141	Felixstowe A1021 Beatrice Ave	SB	399	330	415
283	142	Felixstowe A154 Garrison Lane	NB	380	424	527
284	142	Felixstowe A154 Garrison Lane	SB	441	399	397
285	143	Felixstowe A154 Trinity Avenue	NB	255	251	467
286	143	Felixstowe A154 Trinity Avenue	SB	636	479	424
287	144	Felixstowe A154 Walton Avenue	EB	250	237	349
288	144	Felixstowe A154 Walton Avenue	WB	228	239	317
289	145	Felixstowe Langer Road	NB	148	231	272
290	145	Felixstowe Langer Road	SB	259	227	152
291	146	Felixstowe Maidstone Road	NB	230	156	259
292	146	Felixstowe Maidstone Road	SB	267	168	213
293	147	Felixstowe High Street	EB	523	329	377
294	147	Felixstowe High Street	WB	460	339	451
295	148	Felixstowe High Road	NB	518	265	283
296	148	Felixstowe High Road	SB	294	268	499
297	149	Framlingham B1120	NB	43	42	81

SMV ID	Ref	Site Location	Dir	AM	IP	PM
298	149	Framlingham B1120	SB	80	43	47
299	150	Framlingham B1116 Dennington Rd	NB	86	80	148
300	150	Framlingham B1116 Dennington Rd	SB	196	76	81
301	151	Framlingham B1119 Saxtead Rd	EB	259	127	139
302	151	Framlingham B1119 Saxtead Rd	WB	161	136	198
303	152	Framlingham Saxmundham Rd	EB	106	74	104
304	152	Framlingham Saxmundham Rd	WB	134	72	82
305	153	Framlingham Woodbridge Rd	NB	273	192	277
306	153	Framlingham Woodbridge Rd	SB	282	171	212
307	154	Halesworth B1123 Chediston St	EB	95	61	63
308	154	Halesworth B1123 Chediston St	WB	62	64	88
309	155	Kesgrave A12	NB	1736	1189	1889
310	155	Kesgrave A12	SB	1764	1198	1720
311	156	Ipswich A1156	EB	591	651	526
312	156	Ipswich A1156	WB	597	417	746
313	157	Kesgrave A1214 Main Rd	EB	1166	694	752
314	157	Kesgrave A1214 Main Rd	WB	640	738	1192
315	158	Kesgrave A12	NB	1423	1330	1876
316	158	Kesgrave A12	SB	1956	1411	1683
317	159	Leiston B1122 Abbey Rd	NB	189	182	301
318	159	Leiston B1122 Abbey Rd	SB	236	178	176
319	160	Leiston B1119 Saxmundham Rd	EB	115	107	139
320	160	Leiston B1119 Saxmundham Rd	WB	145	115	138
321	161	Leiston Aldeburgh Road	NB	137	169	196
322	161	Leiston Aldeburgh Road	SB	234	169	190
323	162	Leiston B1069 Leiston Rd	NB	199	164	187
324	162	Leiston B1069 Leiston Rd	SB	192	159	222
325	163	Saxmundham B1121 Main Rd	NB	76	84	107
326	163	Saxmundham B1121 Main Rd	SB	109	75	79
327	164	Saxmundham A12	NB	386	351	445
328	164	Saxmundham A12	SB	473	362	375
329	165	Saxmundham B1119 Rendham Rd	EB	88	73	90
330	165	Saxmundham B1119 Rendham Rd	WB	100	73	85

SMV ID	Ref	Site Location	Dir	AM	IP	PM
331	166	Saxmundham B1121 South Entrance	NB	213	194	240
332	166	Saxmundham B1121 South Entrance	SB	198	188	214
333	167	Friston B1121 Saxmundham Rd	NB	40	40	48
334	167	Friston B1121 Saxmundham Rd	SB	40	45	47
335	168	Snape B1069 Bridge Rd	NB	162	176	220
336	168	Snape B1069 Bridge Rd	SB	159	175	175
337	169	Sudbourne B1084	EB	83	74	75
338	169	Sudbourne B1084	WB	72	72	58
339	170	Wickham Market Ash Road	EB	196	126	148
340	170	Wickham Market Ash Road	WB	115	101	143
341	171	Wickham Market A12	NB	655	584	878
342	171	Wickham Market A12	SB	953	628	732
343	172	Wickham Market B1078	EB	144	79	123
344	172	Wickham Market B1078	WB	103	81	143
345	173	Wickham Market B1438	NB	128	159	215
346	173	Wickham Market B1438	SB	170	148	131
347	174	Woodbridge A12	NB	689	633	954
348	174	Woodbridge A12	SB	1064	693	831
349	175	Woodbridge A1152 Orford Road	EB	308	300	480
350	175	Woodbridge A1152 Orford Road	WB	496	291	353
351	176	Woodbridge Yarmouth Road	NB	241	214	298
352	176	Woodbridge Yarmouth Road	SB	259	188	197
353	177	Woodbridge A1152 Woods Lane	EB	614	464	676
354	177	Woodbridge A1152 Woods Lane	WB	677	475	642
355	178	Woodbridge Burkitt Road	EB	191	116	121
356	178	Woodbridge Burkitt Road	WB	147	89	143
357	179	Woodbridge Ipswich Road	EB	614	509	609
358	179	Woodbridge Ipswich Road	WB	420	430	525
359	180	Woodbridge Grundisburgh Road	EB	386	207	263
360	180	Woodbridge Grundisburgh Road	WB	506	269	507
361	181	Woodbridge B1083	NB	331	227	258
362	181	Woodbridge B1083	SB	244	220	325
363	182	Woodbridge Melton Road	NB	317	381	504

SMV ID	Ref	Site Location	Dir	AM	IP	PM
364	182	Woodbridge Melton Road	SB	411	335	264
365	183	Woodbridge A12	NB	1372	1118	1477
366	183	Woodbridge A12	SB	1487	1187	1483
367	184	Yoxford A1120 Yoxford Rd	EB	112	102	105
368	184	Yoxford A1120 Yoxford Rd	WB	108	99	127
369	185	Yoxford A12 Main Rd	NB	401	385	482
370	185	Yoxford A12 Main Rd	SB	477	389	394
371	186	Beccles A146 Norwich Road	EB	837	669	1076
372	186	Beccles A146 Norwich Road	WB	834	686	940
373	187	Beccles A145 George Westwood Way	NB	418	543	542
374	187	Beccles A145 George Westwood Way	SB	429	489	547
375	188	Beccles B1062 Bungay Road	EB	242	192	255
376	188	Beccles B1062 Bungay Road	WB	206	185	256
377	189	Beccles A145 London Road	NB	241	206	310
378	189	Beccles A145 London Road	SB	221	190	243
379	190	Beccles Lowestoft Road	EB	363	228	286
380	190	Beccles Lowestoft Road	WB	246	201	266
381	191	Beccles A146	EB	737	614	993
382	191	Beccles A146	WB	843	613	797
383	192	Beccles A145	NB	299	226	307
384	192	Beccles A145	SB	5	19	31
385	193	Beccles B1127 Benacre Road	EB	182	165	225
386	193	Beccles B1127 Benacre Road	WB	210	161	203
387	194	Beccles Copland Way	NB	272	211	354
388	194	Beccles Copland Way	SB	300	217	246
389	195	Beccles Bridge Street	EB	232	163	211
390	195	Beccles Bridge Street	WB	192	170	246
391	196	Bungay A144 Broad Street	NB	87	115	160
392	196	Bungay A144 Broad Street	SB	423	304	448
393	197	Bungay Beccles Road	EB	101	102	143
394	197	Bungay Beccles Road	WB	104	76	92
395	198	Bungay Flixton Road	NB	116	69	63
396	198	Bungay Flixton Road	SB	30	39	54

SMV ID	Ref	Site Location	Dir	AM	IP	PM
397	199	Bungay A144 St John's Road	NB	347	267	357
398	199	Bungay A144 St John's Road	SB	295	245	316
399	200	Bungay Flixton Road	EB	155	129	168
400	200	Bungay Flixton Road	WB	113	120	156
401	201	Bungay Watch House Hill	EB	220	185	272
402	201	Bungay Watch House Hill	WB	217	170	239
403	202	Bungay A144	EB	251	167	232
404	202	Bungay A144	WB	255	181	282
405	203	Halesworth A144	NB	222	194	346
406	203	Halesworth A144	SB	266	179	219
407	204	Halesworth B1123 Holton Road	EB	197	175	196
408	204	Halesworth B1123 Holton Road	WB	197	176	178
409	205	Halesworth Walpole Road	NB	93	81	90
410	205	Halesworth Walpole Road	SB	81	78	109
411	206	Halesworth A144 Bramfield Road	NB	159	160	237
412	206	Halesworth A144 Bramfield Road	SB	226	149	174
413	207	Kessingland B1437 London Road	NB	229	168	147
414	207	Kessingland B1437 London Road	SB	134	190	255
415	208	Southwold A1095 Mights Road	NB	162	368	393
416	208	Southwold A1095 Mights Road	SB	439	352	236
417	209	Southwold B1126 Wangford Road	EB	77	61	64
418	209	Southwold B1126 Wangford Road	WB	72	67	72
419	210	Southwold A1095 Halesworth Road	EB	182	182	146
420	210	Southwold A1095 Halesworth Road	WB	202	195	213
421	211	Southwold B1127 Lowestoft Road	NB	111	139	209
422	211	Southwold B1127 Lowestoft Road	SB	269	136	128
423	212	Wangford A12	NB	305	264	434
424	212	Wangford A12	SB	348	272	288
425	213	Wangford Dedham Road	NB	92	87	111
426	213	Wangford Dedham Road	SB	118	86	109
427	214	Stratford St Mary B1029	EB	64	61	93
428	214	Stratford St Mary B1029	WB	255	147	219
429	215	RAF Mildenhall A1101	EB	549	431	576

SMV ID	Ref	Site Location	Dir	AM	IP	PM
430	215	RAF Mildenhall A1101	WB	219	231	429
431	216	Mildenhall W Row Road	EB	198	151	255
432	216	Mildenhall W Row Road	WB	186	145	195
433	217	Lackford A1101	NB	182	154	252
434	217	Lackford A1101	SB	222	141	249
435	218	Moulton B1506	EB	250	175	273
436	218	Moulton B1506	WB	256	191	267
437	219	Newmarket B1061 Dullingham Road	NB	251	155	222
438	219	Newmarket B1061 Dullingham Road	SB	178	157	301
439	220	Scole A140 Scole Bridge	NB	672	468	735
440	220	Scole A140 Scole Bridge	SB	650	443	685
441	221	Wickham Market B1078	EB	40	34	50
442	221	Wickham Market B1078	WB	55	35	38
443	222	Stutton Holbrook Road	EB	133	79	115
444	222	Stutton Holbrook Road	WB	158	81	145
449	225	Sudbury Cats Lane	NB	120	152	159
450	225	Sudbury Cats Lane	SB	101	111	117
451	225	Sudbury Cats Lane	NB	123	147	154
452	225	Sudbury Cats Lane	SB	104	101	108
453	226	Sudbury Acton Lane	NB	68	64	97
454	226	Sudbury Acton Lane	SB	109	58	63
455	227	Sudbury Valley Road	NB	179	134	266
456	227	Sudbury Valley Road	SB	214	115	227
457	228	Sudbury Melford Road	NB	219	122	150
458	228	Sudbury Melford Road	SB	148	124	229
459	229	Newton A134	EB	677	460	695
460	229	Newton A134	WB	667	450	743
548	1	Mutfordwood Lane	EB	19	20	29
549	1	Mutfordwood Lane	WB	14	17	21
550	2	Rushmere Road	EB	34	50	78
551	2	Rushmere Road	WB	44	52	41
552	3	Gisleham Road	NB	21	20	42
553	3	Gisleham Road	SB	17	22	26

SMV ID	Ref	Site Location	Dir	AM	IP	PM
554	4	A146 Beccles Road	EB	639	589	896
555	4	A146 Beccles Road	WB	670	588	664
556	5	A1145 Castleton Avenue	EB	441	306	460
557	5	A1145 Castleton Avenue	WB	343	322	448
558	6	A12 London Road	NB	719	642	759
559	6	A12 London Road	SB	595	664	775
560	7	London Road South	NEB	452	385	520
561	7	London Road South	SWB	356	408	499
562	8	A12 Tom Crisp Way	NEB	823	490	502
563	8	A12 Tom Crisp Way	SWB	381	492	708
564	9	A1117 Elm Tree Road	NB	310	382	421
565	9	A1117 Elm Tree Road	SB	359	405	417
566	10	A146 Beccles Road	NEB	479	417	535
567	10	A146 Beccles Road	SWB	435	399	491
568	11	Kirkley Run	NWB	162	132	219
569	11	Kirkley Run	SEB	94	109	183
570	12	A146 Waveney Drive	EB	347	258	221
571	12	A146 Waveney Drive	WB	151	266	431
572	13	A1117 Saltwater Way	NB	942	920	1064
573	13	A1117 Saltwater Way	SB	777	861	997
574	15	Katwijk Way	NB	411	323	307
575	15	Katwijk Way	SB	134	204	225
576	16	A12 Battery Green Road	NB	675	465	457
577	16	A12 Battery Green Road	SB	571	610	911
578	17	A12 Old Nelson Street	NB	414	440	630
579	17	A12 Old Nelson Street	SB	489	474	577
580	18	St Peter's Street	EB	656	646	624
581	18	St Peter's Street	WB	301	446	510
582	19	Denmark Road	EB	215	237	261
583	19	Denmark Road	WB	304	338	406
584	20	Rotterdam Road	NEB	136	146	151
585	20	Rotterdam Road	SWB	99	140	146
586	21	Peto Way	NB	396	445	423

SMV ID	Ref	Site Location	Dir	AM	IP	PM
587	21	Peto Way	SB	317	550	609
588	22	A1117 Normanston Drive	NEB	687	641	608
589	22	A1117 Normanston Drive	SWB	506	650	648
590	23	A1144 Normanston Drive	EB	408	281	238
591	23	A1144 Normanston Drive	WB	190	275	323
592	24	Oulton Road	EB	476	325	371
593	24	Oulton Road	WB	246	270	353
594	25	B1375 Gorleston Road	NB	584	445	543
595	25	B1375 Gorleston Road	SB	484	473	702
596	26	A1117 Millennium Way	NB	376	438	545
597	26	A1117 Millennium Way	SB	450	392	510
598	27	A12 Yarmouth Road	NWB	460	508	702
599	27	A12 Yarmouth Road	SEB	651	510	601
600	28	B1385 Corton Road	NB	96	88	104
601	28	B1385 Corton Road	SB	102	99	93
602	29	A12 Yarmouth Road	NB	567	495	656
603	29	A12 Yarmouth Road	SB	567	542	730
604	30	B1375 Parkhill	NB	461	263	315
605	30	B1375 Parkhill	SB	251	193	485
606	31	B1074 Bluderston Road	NB	179	116	219
607	31	B1074 Bluderston Road	SB	113	101	143
608	32	Fixton Road	NB	51	49	56
609	32	Fixton Road	SB	84	71	76
610	33	Coast Road	NB	61	63	51
611	33	Coast Road	SB	50	60	69
622	1	Corporation Avenue	EB	6	13	9
623	1	Corporation Avenue	WB	7	14	15
624	2	Unnamed Road	EB	4	1	3
625	2	Unnamed Road	WB	4	2	4
626	3	Hawthorn Drive	EB	365	219	237
627	3	Hawthorn Drive	WB	164	194	320
628	4	Anglesea Road	EB	181	158	249
629	4	Anglesea Road	WB	158	156	218

SMV ID	Ref	Site Location	Dir	AM	IP	PM
630	5	Cobbold Street	WB	108	80	92
631	6	Christchurch Street	NB	22	26	27
632	6	Christchurch Street	SB	104	58	74
633	7	Blanche Street	NB	47	56	61
634	7	Blanche Street	SB	2	2	1
635	8	Bramley Hill	NB	26	35	73
636	8	Bramley Hill	SB	88	36	40
637	9	Belvedere Road	NB	217	83	160
638	9	Belvedere Road	SB	53	42	77
639	10	Brunswick Road	NB	65	52	86
640	10	Brunswick Road	SB	97	55	74
641	11	Khartoum Road	NB	20	18	36
642	11	Khartoum Road	SB	19	11	12
643	12	Sidegate Lane	NB	206	173	263
644	12	Sidegate Lane	SB	180	167	233
645	13	Phoenix Road	NB	13	7	10
646	13	Phoenix Road	SB	21	9	12
647	14	Schrieber Road	NB	25	14	24
648	14	Schrieber Road	SB	18	12	15
649	15	Reading Road	NB	75	36	77
650	15	Reading Road	SB	99	48	94
651	16	Adelaide Road	NB	41	42	48
652	16	Adelaide Road	SB	68	39	38
653	17	Gleneagles Drive	EB	103	57	83
654	17	Gleneagles Drive	WB	125	48	65
655	18	Penshurst Road	EB	54	59	70
656	18	Penshurst Road	WB	45	36	39
657	19	Ashdown Way	EB	143	146	214
658	19	Ashdown Way	WB	335	176	220
659	21	Grove Hill	NB	112	59	198
660	21	Grove Hill	SB	89	46	75
661	22	Crane Hill	NB	445	429	507
662	22	Crane Hill	SB	344	460	732

SMV ID	Ref	Site Location	Dir	AM	IP	PM
663	23	Birkfield Drive	NB	158	105	113
664	23	Birkfield Drive	SB	95	115	201
665	24	Belstead Road	NB	463	279	304
666	24	Belstead Road	SB	192	277	470
667	25	Norwich Road	NB	637	658	708
668	25	Norwich Road	SB	713	617	618
669	26	Bramford Road	EB	494	450	606
670	26	Bramford Road	WB	495	432	542
671	27	A1214 Yarmouth Road	NB	529	646	770
672	27	A1214 Yarmouth Road	SB	707	606	591
673	28	A1071 Handford Road	EB	372	376	264
674	28	A1071 Handford Road	WB	291	396	452
675	29	B1067 Bramford Road	NWB	221	250	303
676	29	B1067 Bramford Road	SEB	180	215	293
677	30	A1156 Norwich Road	NB	381	444	500
678	30	A1156 Norwich Road	SB	651	415	430
679	31	Valley Road	EB	419	494	500
680	31	Valley Road	WB	603	552	572
681	32	Henley Road	NB	297	299	523
682	32	Henley Road	SB	428	280	361
683	33	Valley Road	EB	744	692	848
684	33	Valley Road	WB	986	749	931
685	34	Westerfield Road	NB	221	232	604
686	34	Westerfield Road	SB	518	225	270
687	35	B1077 Westerfield Road	NB	126	114	191
688	35	B1077 Westerfield Road	SB	243	129	189
689	36	Colchester Road	EB	687	653	676
690	36	Colchester Road	WB	692	678	723
691	37	A1214 Woodbridge Road	EB	542	638	774
692	37	A1214 Woodbridge Road	WB	846	680	762
693	38	A1189 Heath Road	NB	876	785	840
694	38	A1189 Heath Road	SB	769	753	771
695	39	Foxhall Road	EB	541	375	507

SMV ID	Ref	Site Location	Dir	AM	IP	PM
696	39	Foxhall Road	WB	422	379	711
1615	C103	Oulton Road	EB	314	235	314
1616	C103	Oulton Road	WB	311	235	266
1617	C105	Long Road	SB	165	164	184
1618	C105	Long Road	NB	159	147	180
1619	C106	Victoria Road	EB	436	309	316
1620	C106	Victoria Road	WB	299	326	482
1621	C107	Peto Way	EB	261	343	385
1622	C107	Peto Way	WB	358	441	553
1623	C108	Crestview Drive	SB	180	115	106
1624	C108	Crestview Drive	NB	154	119	118
1625	C109	Millennium Way	SB	508	490	583
1626	C109	Millennium Way	NB	461	466	564
1627	C110	St. Peters Street	EB	397	306	276
1628	C110	St. Peters Street	WB	222	274	305
1629	C111	Cotmer Road, Oulton Broad	SB	487	552	629
1630	C111	Cotmer Road, Oulton Broad	NB	435	423	489
1631	C112	Ashburnham Way, Carlton Colville	EB	283	236	257
1632	C112	Ashburnham Way, Carlton Colville	WB	259	254	322
1633	C113	Lowestoft Road, Carlton Colville	EB	233	205	219
1634	C113	Lowestoft Road, Carlton Colville	WB	231	197	207
1635	C116	Tom Crisp Way	SB	421	588	931
1636	C116	Tom Crisp Way	NB	978	544	459
1637	C200	Compiegne Way	SB	958	685	826
1638	C200	Compiegne Way	NB	639	756	1140
1639	C201	Out Westgate	EB	580	452	491
1640	C201	Out Westgate	WB	488	473	752
1641	C203	Eastgate Street	EB	328	336	527
1642	C203	Eastgate Street	WB	699	395	500
1643	C303	Woodbridge Road	EB	489	451	488
1644	C303	Woodbridge Road	WB	570	487	638
1645	C304	Foxhall Road	EB	574	406	430
1646	C304	Foxhall Road	WB	462	364	495

SMV ID	Ref	Site Location	Dir	AM	IP	PM
1647	C305	Bixley Road	SB	731	800	768
1648	C305	Bixley Road	NB	747	877	918
1649	C306	Felixstowe Road	EB	442	397	442
1650	C306	Felixstowe Road	WB	418	420	506
1651	C307	Sproughton Road	EB	454	445	654
1652	C307	Sproughton Road	WB	448	332	415
1653	C308	Nacton Road	EB	593	596	546
1654	C308	Nacton Road	WB	735	765	1000
1655	C501	Melton Hill, Woodbridge	SB	399	362	320
1656	C501	Melton Hill, Woodbridge	NB	369	443	569
1657	C600	Gipping Way	SB	369	345	424
1658	C600	Gipping Way	NB	410	309	391
1659	M002	A12, Woodbridge	SB	1506	1143	1490
1660	M002	A12, Woodbridge	NB	1284	1084	1522
1661	M006	Freston Hill,	SB	405	307	571
1662	M006	Freston Hill,	NB	677	292	299
1663	M008	Long Melford Bypass,	SB	302	281	481
1664	M008	Long Melford Bypass,	NB	447	294	352
1665	M010	Sudbury Road, Sicklesmere	SB	305	397	770
1666	M010	Sudbury Road, Sicklesmere	NB	740	370	423
1667	M012	Tattingstone,	SB	345	263	677
1668	M012	Tattingstone,	NB	524	268	400
1669	M014	Rickinghall/Botesdale Bypass,	EB	298	240	409
1670	M014	Rickinghall/Botesdale Bypass,	WB	361	235	268
1671	M024	South of Norton,	SB	513	229	333
1672	M024	South of Norton,	NB	326	191	415
1673	M026	Brightwell,	SB	1767	1338	1976
1674	M026	Brightwell,	NB	2092	1313	1916
1675	M036	Otley East of C306,	EB	396	149	306
1676	M036	Otley East of C306,	WB	318	158	321
1677	M038	North of Finningham,	SB	106	76	141
1678	M038	North of Finningham,	NB	85	59	118
1679	M043	Kessingland Bypass,	SB	492	464	485

SMV ID	Ref	Site Location	Dir	AM	IP	PM
1680	M043	Kessingland Bypass,	NB	558	469	613
1681	M048	Blyburgate	SB	306	348	418
1682	M048	Blyburgate	NB	391	426	438
1683	M053	Wilford Bridge, Melton	EB	552	513	799
1684	M053	Wilford Bridge, Melton	WB	823	541	608
1685	M055	North of C366, Swilland	SB	199	87	162
1686	M055	North of C366, Swilland	NB	120	82	142
1687	M061	Chantry Park	EB	677	270	418
1688	M061	Chantry Park	WB	267	251	352
1689	M068	Ballingdon Hill	SB	415	330	458
1690	M068	Ballingdon Hill	NB	410	343	502
1691	M073	South of Bury St Edmunds,	SB	54	77	178
1692	M073	South of Bury St Edmunds,	NB	179	73	53
1693	M076	South Elveden,	SB	301	154	205
1694	M076	South Elveden,	NB	164	146	275
1695	M077	Between A11 and A1101, Icklingham	SB	100	58	162
1696	M077	Between A11 and A1101, Icklingham	NB	77	60	96
1697	M079	Outside Asda Superstore	SB	1200	888	952
1698	M079	Outside Asda Superstore	NB	1165	1038	1455
1699	M090	South of Elmswell,	EB	190	217	491
1700	M090	South of Elmswell,	WB	555	227	279
1701	P004	Warren Heath	EB	1096	883	771
1702	P004	Warren Heath	WB	893	963	993
1703	P006	South of U4519, Great Finborough	SB	123	84	149
1704	P006	South of U4519, Great Finborough	NB	142	95	201
1705	Y006	South West of Hopton,	EB	109	81	149
1706	Y006	South West of Hopton,	WB	205	133	171
1707	Y056	North of B1077, Stuston	SB	860	531	729
1708	Y056	North of B1077, Stuston	NB	527	469	710
1709	Y080	South of A12, East Bergholt	EB	323	217	358
1710	Y080	South of A12, East Bergholt	WB	317	189	219
1711	Y115	East of B1069, Snape	EB	332	279	339
1712	Y115	East of B1069, Snape	WB	290	293	341

SMV ID	Ref	Site Location	Dir	AM	IP	PM
1713	Y141	A12, Farnham	SB	693	571	635
1714	Y141	A12, Farnham	NB	580	572	746
1715	Y142	A12 Benhall (South of B1121),	SB	653	492	454
1716	Y142	A12 Benhall (South of B1121),	NB	480	467	668
1717	Y149	A146 Beccles Bypass,	EB	610	561	924
1718	Y149	A146 Beccles Bypass,	WB	903	577	697
1719	Y151	London Road	SB	587	714	874
1720	Y151	London Road	NB	766	619	692
1721	Y154	Loraine Way, Bramford	SB	392	220	306
1722	Y154	Loraine Way, Bramford	NB	328	263	374
1723	Y159	London Road, Pakefield	SB	381	372	355
1724	Y159	London Road, Pakefield	NB	346	351	566
1725	Y176	East of Blacktiles Lane, Martlesham	SB	126	95	110
1726	Y176	East of Blacktiles Lane, Martlesham	NB	142	134	226
1727	Y177	Norwich Road	SB	564	543	549
1728	Y177	Norwich Road	NB	662	535	687
1729	Y188	Nacton Road Link	SB	874	944	1335
1730	Y188	Nacton Road Link	NB	1219	963	1067
1731	Y190	Park Road	EB	247	270	712
1732	Y190	Park Road	WB	502	211	249
1733	Y191	Fonnereau Road	EB	213	168	238
1734	Y191	Fonnereau Road	WB	133	131	211
1735	Y192	Crown Street	EB	522	604	428
1736	Y192	Crown Street	WB	566	463	484
1737	Y194	Star Lane	EB L1&L2	1378	1060	1071
1738	Y218	B1115, Stowupland	SB	258	170	239
1739	Y218	B1115, Stowupland	NB	244	170	237
1740	Y219	Wherstead Road	SB	872	613	1150
1741	Y219	Wherstead Road	NB	992	514	794
1742	Y220	Waldingfield Road	EB	305	364	441
1743	Y220	Waldingfield Road	WB	462	361	488
1851	1	A12, Near Park Farm Covert	NB	357	379	528
1852	1	A12, Near Park Farm Covert	SB	584	386	338

SMV ID	Ref	Site Location	Dir	AM	IP	PM
1853	2	Main Road, Near School Lane	EB	152	121	145
1854	2	Main Road, Near School Lane	WB	142	127	133
1855	3	Mitford Road	EB	8	6	7
1856	3	Mitford Road	WB	8	7	8
1857	4	Low St-Gemham Road Connecting A12	NB	10	11	10
1858	4	Low St-Gemham Road connecting A12	SB	13	10	8
1859	5	Park Road, South of Harrow Lane	NB	4	15	5
1860	5	Park Road, South of Harrow Lane	SB	5	13	5
1861	6	Farnham Road	NB	264	269	340
1862	6	Farnham Road	SB	319	267	276
1863	7	Langham Road, Near Friday St Farm	NB	1	2	1
1864	7	Langham Road, Near Friday St Farm	SB	1	2	1
1865	8	Langham Road, Connecting A12	NB	7	6	8
1866	8	Langham Road, Connecting A12	SB	7	6	7
1867	9	Mill Lane, West of Stratford St Andrew	NB	2	3	5
1868	9	Mill Lane, West of Stratford St Andrew	SB	4	3	2
1869	10	Tinker Brook Lane	NB	5	6	7
1870	10	Tinker Brook Lane	SB	8	5	7
1871	11	Church Road	EB	12	8	11
1872	11	Church Road	WB	16	8	8
1873	12	Keepers Lane	EB	2	2	3
1874	12	Keepers Lane	WB	2	1	2
1875	13	A12, Near Park Cottage	EB	589	563	754
1876	13	A12, Near Park Cottage	WB	795	569	624
1877	14	Buttons Road	NB	40	25	30
1878	14	Buttons Road	SB	33	24	39
1879	15	Bell Lane	NB	30	25	42
1880	15	Bell Lane	SB	47	26	35
1881	16	Marlesford Road	NB	7	5	7
1882	16	Marlesford Road	SB	9	5	4
1883	17	Lane Connecting A12, From Wells Cottage	NB	6	7	8
1884	17	Lane Connecting A12, From Wells Cottage	SB	9	8	10
1885	18	A12, Near Whin Belt	EB	599	579	768

SMV ID	Ref	Site Location	Dir	AM	IP	PM
1886	18	A12, Near Whin Belt	WB	852	583	650
1887	19	Lane Connecting To A12	EB	1	1	2
1888	19	Lane Connecting To A12	WB	2	2	1
1889	20	The Street, Near The Lodge	NB	278	204	325
1890	20	The Street, Near The Lodge	SB	382	213	278
1891	21	Main Road, Near School Lane	EB	201	172	229
1892	21	Main Road, Near School Lane	WB	213	157	197
1893	22a	A12, Near Lower Hatcheston	NB	658	629	897
1894	22b	A12, Near Lower Hatcheston	SB	1061	660	757
1895	23	Hall Road, Near Silverlace Green	EB	41	26	37
1896	23	Hall Road, Near Silverlace Green	WB	45	27	42
1897	24	Lane Connecting B1119	NB	13	15	23
1898	24	Lane Connecting B1119	SB	25	15	18
1899	25	The Street, Near Tyw Cottage	NB	245	220	370
1900	25	The Street, Near Tyw Cottage	SB	381	210	326
1901	26	Woodbridge Road	NB	132	111	178
1902	26	Woodbridge Road	SB	131	112	164
1903	27	Orford Road	EB	41	35	39
1904	27	Orford Road	WB	33	33	39
1905	28	A22, Near Middleton Road	NB	469	469	579
1906	28	A22, Near Middleton Road	SB	592	467	452
1907	29	Middleton Road, Connecting A12	EB	151	99	108
1908	29	Middleton Road, Connecting A12	WB	119	104	152
1909	30	Mill Lane, East of Stratford St Andrew	EB	30	23	17
1910	30	Mill Lane, East of Stratford St Andrew	WB	25	23	26
1911	31a	A12 South Of B1078	NB	640	617	863
1912	31b	A12 South Of B1078	SB	1063	657	761
1913	32	A12 Saxmundham	NB	374	359	464
1914	32	A12 Saxmundham	SB	503	362	338
1915	33	Abbey Lane	NB	54	25	29
1916	33	Abbey Lane	SB	25	24	59
1917	34	King Georges Avenue	EB	155	78	70
1918	34	King Georges Avenue	WB	69	87	216

SMV ID	Ref	Site Location	Dir	AM	IP	PM
1919	35	Lovers Lane	EB	163	67	38
1920	35	Lovers Lane	WB	46	75	191
1921	36	Easton Road	NB	106	62	101
1922	36	Easton Road	SB	131	63	80
2024	1	B1061, Borrough Green parish	EB	100	0	290
2025	1	B1061, Borrough Green parish	WB	263	0	123
2026	2	Unclassified minor road, Shudy Camps parish	EB	53	0	95
2027	2	Unclassified minor road, Shudy Camps parish	WB	98	0	48
2028	3	Skipper's Lane, West Wickham parish	NB	89	0	49
2029	3	Skipper's Lane, West Wickham parish	SB	42	0	126
2030	4	West Wickham Road	SB	33	0	137
2031	4	West Wickham Road	NB	93	0	39
2120	1	Saw Hill, North of Pigeons Lane	NB	435	189	393
2121	1	Saw Hill, North of Pigeons Lane	SB	199	159	305
2122	3	Burstall Lane, West of B1113	EB	283	57	154
2123	3	Burstall Lane, West of B1113	WB	94	54	122
2124	6	Somersham Road, East of The Beeches	EB	188	88	117
2125	6	Somersham Road, East of The Beeches	WB	111	87	180
2126	11	Henley Road	NB	320	140	266
2127	11	Henley Road	SB	404	139	392
2128	12	Westerfield Road	NB	150	105	181
2129	12	Westerfield Road	SB	198	122	174
2130	13	Clopton Road	NB	38	27	50
2131	13	Clopton Road	SB	94	30	40
2132	14	Unnamed Road[30M] Btwn Holly Lane And Grundisburgh Road	NB	149	78	197
2133	14	Unnamed Road[30M] Btwn Holly Lane And Grundisburgh Road	SB	303	79	169
2134	15	Ipswich Road[60M]North Of Culpho	NB	74	49	96
2135	15	Ipswich Road[60M]North Of Culpho	SB	109	50	74
2136	16	Lodge Road[30M]East Of Manor House Road	NB	51	24	35
2137	16	Lodge Road[30M]East Of Manor House Road	SB	50	26	45
2138	19	Sandy Lane[60M]East Of Top Street	EB	39	39	51
2139	19	Sandy Lane[60M]East Of Top Street	WB	49	46	56
2140	20	School Lane[60M]East Of Viking Heights	NB	71	60	88

SMV ID	Ref	Site Location	Dir	AM	IP	PM
2141	20	School Lane[60M]East Of Viking Heights	SB	79	52	68
2142	21	14139-021 Suffolk. Newbourne Road, East of A12. Eastbound	EB	262	226	230
2143	21	14139-021 Suffolk. Newbourne Road, East of A12. Westbound	WB	336	215	322
2144	22	14139-022 Suffolk. Main Road, East of Road Connects Seven Hills. Eastbound	EB	113	54	98
2145	22	14139-022 Suffolk. Main Road, East of Road Connects Seven Hills. Westbound	WB	86	50	51
2146	24	14139-024 Suffolk. Felixstowe Road, East of A1156. Eastbound	EB	153	122	142
2147	24	14139-024 Suffolk. Felixstowe Road, East of A1156. Westbound	WB	152	129	214
2148	25	14139-025 Suffolk. The Street, South of Felixstowe Road. Northbound	NB	96	63	93
2149	25	14139-025 Suffolk. The Street, South of Felixstowe Road. Southbound	SB	136	56	75
2150	26	14139-026 Suffolk. Nacton Road, South of A14. Northbound	NB	130	55	101
2151	26	14139-026 Suffolk. Nacton Road, South of A14. Southbound	SB	79	58	71
2152	32	14139-032 Suffolk. B1067 East of A14. Eastbound	EB	256	164	240
2153	32	14139-032 Suffolk. B1067 East of A14. Westbound	WB	245	166	264
2154	33	14139-033 Suffolk. Sproughton Road, East of A14 West of Farthing Road. Eastbound	EB	769	453	739
2155	33	14139-033 Suffolk. Sproughton Road, East of A14 West of Farthing Road. Westbound	WB	654	456	784
2156	34	14139-034 Suffolk. A1071 West of Hadleigh Road. Eastbound	EB	950	540	808
2157	34	14139-034 Suffolk. A1071 West of Hadleigh Road. Westbound	WB	628	538	806
2158	36	14139-036 Suffolk. Scrivener Drive, East of A1214. Eastbound	EB	505	459	885
2159	36	14139-036 Suffolk. Scrivener Drive, East of A1214.Westbound	WB	815	452	581
2160	38	14139-038 Suffolk. Bramford Lane, East of Cromer Road. Northbound	NB	113	84	149
2161	38	14139-038 Suffolk. Bramford Lane, East of Cromer Road. Southbound	SB	410	131	284
2162	40	Dale Hale Lane, South Of Larchcroft Road	NB	217	161	231
2163	40	Dale Hale Lane, South Of Larchcroft Road [30M]	SB	321	143	170
2164	43	Hadleigh Road, West Of Dunlop Road [30M]	EB	659	330	431
2165	43	Hadleigh Road, West Of Dunlop Road [30M]	WB	298	313	468
2166	44	A1214 East Dickens Road	NB	606	672	889
2167	44	A1214 East Dickens Road	SB	712	610	619
2168	45	Ancaster Rd [30M]	NB	498	257	284
2169	45	Ancaster Rd [30M]	SB	253	282	446

SMV ID	Ref	Site Location	Dir	AM	IP	PM
2170	47	Maidenhead Approach [30M]	NB	275	115	139
2171	47	Maidenhead Approach [30M]	SB	176	120	239
2172	48	Rushmere Road West Of Humber Douchy Lane [30M]	NB	175	94	138
2173	48	Rushmere Road West Of Humber Douchy Lane [30M]	SB	256	125	204
2174	51	Foxhall Road, W Of Chilton Road [30]	EB	561	384	445
2175	51	Foxhall Road, W Of Chilton Road [30]	WB	476	380	570
2176	54	Martlesham Road[30M]West Of A12	EB	228	76	126
2177	54	Martlesham Road[30M]West Of A12	WB	94	63	178
2178	56	Foxhall Road[60M]West Of A12	EB	573	357	452
2179	56	Foxhall Road[60M]West Of A12	WB	431	395	912
2180	60	Bucklesham Road West Of A12 [60M]	EB	102	36	50
2181	60	Bucklesham Road West Of A12 [60M]	WB	47	35	49
2182	62A	Crown Street [30m]	EB	369	454	422
2183	62A	Crown Street [30m]	WB	615	513	444
2184	62B	Fonnereau Road [30m]	NB	167	150	184
2185	62B	Fonnereau Road [30m]	SB	203	152	215
2186	63	Dogs Head St [20m]	EB	14	5	12
2187	63	Dogs Head St [20m]	WB	150	163	247
2188	64	Turret Lane [20m]	EB	13	7	11
2189	64	Turret Lane [20m]	WB	7	6	29
2190	65	A1022 [30m]	EB	1070	929	870
2191	65	A1022 [30m]	WB	64	30	163
2192	66	College St East Of Foundary Lane [30m]	EB	136	47	182
2193	66	College St East Of Foundary Lane [30m]	WB	1162	1033	921
2194	67	Graham Road, North of Anglesea road [30m]	NB	31	16	68
2195	67	Graham Road, North of Anglesea road [30m]	SB	84	15	23
2196	68	Paget Road, North of Anglesea Road [30m]	NB	50	18	32
2197	68	Paget Road, North of Anglesea Road [30m]	SB	50	18	26
2198	69	Warrington Road, N of Anglesea Road [30m]	NB	93	44	111
2199	69	Warrington Road, N of Anglesea Road [30m]	SB	151	43	49
2200	70	Henley Road [30m]	NB	333	350	820
2201	70	Henley Road [30m]	SB	838	302	332
2202	71	Bolton Road	NB	160	141	279

SMV ID	Ref	Site Location	Dir	AM	IP	PM
2203	71	Bolton Road	SB	415	134	181
2204	72 A	Cobbald St	WB	72	38	44
2205	84	A137	NB	1014	615	1063
2206	84	A137	SB	1000	566	1030
2207	85	The Strand	NB	696	338	316
2208	85	The Strand	SB	412	345	563
2209	86	Nacton Road	NB	1078	928	974
2210	86	Nacton Road	SB	883	961	1198
2211	87 A	The Havens	NB	980	336	379
2212	87 A	The Havens	SB	500	406	615
2213	88	Felixstowe Road	EB	612	416	518
2214	88	Felixstowe Road	WB	577	449	759
2215	90	Tuddenham Road	NB	219	135	325
2216	90	Tuddenham Road	SB	555	160	263
2217	91	Sidegate Lane	EB	221	118	176
2218	91	Sidegate Lane	WB	248	104	153
2219	92	Renfrew road	NB	207	139	159
2220	92	Renfew Road	SB	141	125	132
2221	93	Humber Douchy Lane	NB	112	71	104
2222	93	Humber Douchy Lane	SB	82	40	72
2223	94	East of Humber Douchy Road	EB	191	108	204
2224	94	East of Humber Douchy Road	WB	128	65	105
2225	97	Bucklesham Road	EB	125	81	83
2226	97	Bucklesham Road	WB	113	86	201
2227	99	Lindbergh Road, North of Campbell Road	NB	166	116	196
2228	99	Lindbergh Road, North of Campbell Road	SB	118	94	110
2229	100	Nacton Road, South of Landseer Road	NB	633	610	772
2230	100	Nacton Road, South of Landseer Road	SB	565	606	628
2231	103	Cliff Lane, East of Landseer Road	EB	117	98	141
2232	103	Cliff Lane, East of Landseer Road	WB	201	99	94
2233	104	Holywell Road, South of Patteson Road	NB	431	352	370
2234	104	Holywell Road, South of Patteson Road	SB	282	314	333
2235	105	Cliff Road, South of Patterson Road	NB	103	43	52

SMV ID	Ref	Site Location	Dir	AM	IP	PM
2236	105	Cliff Road, South of Patterson Road	SB	38	32	17
2237	108a	Between Hadham Road and Yarmouth Road	EB	1157	946	1009
2238	108b	Between Hadham Road and Yarmouth Road	WB	954	1030	1275
2239	109	Between Beaconsfield Road and Yarmouth Road	EB	557	437	460
2240	109	Between Beaconsfield Road and Yarmouth Road	WB	406	472	665
2241	110	Bramford Lane, Between All Saints and Brookshall Road	NB	43	46	96
2242	110	Bramford Lane, Between All Saints and Brookshall Road	SB	315	99	172
2243	111	Norwich road, Between Broom Hill and Westwood	NB	766	796	918
2244	111	Norwich road, Between Broom Hill and Westwood	SB	920	685	668
2245	112	Dale Hall Lane, North of Valley Road	NB	220	182	249
2246	112	Dale Hall Lane, North of Valley Road	SB	285	163	227
2247	113	Henley Road, N of Valley Road	NB	470	322	429
2248	113	Henley Road, N of Valley Road	SB	316	321	552
2249	114	Pownall Road	NB	62	41	64
2250	114	Pownall Road	SB	56	51	75
2251	115	Scrivener Drive	NB	242	177	215
2252	115	Scrivener Drive	SB	225	191	293
2253	116	Robin Drive	NB	280	181	167
2254	116	Robin Drive	SB	188	222	330
2255	117	Lovetofts Drive	NB	278	163	158
2256	117	Lovetofts Drive	SB	253	184	429
2257	118	Felixstowe Road, West Of Derby Road	NB	293	285	298
2258	118	Felixstowe Road, West Of Derby Road	SB	268	261	337
2259	120	Landseer Road West Of Clapgate Lane	EB	347	347	429
2260	120	Landseer Road West Of Clapgate Lane	WB	582	412	434
2261	121	Nacton Road, E Of Felixstowe Road Junction	NB	170	177	155
2262	121	Nacton Road, E Of Felixstowe Road Junction	SB	163	229	258
2263	122	Ashcroft Road, E Of Norwich Road	EB	138	141	222
2264	122	Ashcroft Road, E Of Norwich Road	WB	270	157	153
2265	123	Grimwade St North Of Star Lane	NB	110	64	106
2266	123	Grimwade St North Of Star Lane	SB	536	405	402
2267	124	Duke St, South Of Pownhall Road	NB	491	393	435
2268	124	Duke St, South Of Pownhall Road	SB	236	298	288

SMV ID	Ref	Site Location	Dir	AM	IP	PM
2269	125	Fore Hamlet, East Of Pownhall Road	NB	539	475	466
2270	125	Fore Hamlet, East Of Pownhall Road	SB	361	477	541
2271	126a	Bridge Street	NB	1001	788	853
2272	126b	Bridge Street	SB	765	738	915
2273	127	Grey Friars Road	NB	668	483	470
2274	127	Grey Friars Road	SB	600	513	598
2275	128	Grafton Way	EB	392	376	418
2276	128	Grafton Way	WB	529	426	382
2277	129	14139-129 Suffolk. Bond St, North of Star Lane. Northbound	NB	297	278	458
2278	130	14139-130 Suffolk. Spring Road, West of Goring Road. Eastbound	EB	252	158	189
2279	130	14139-130 Suffolk. Spring Road, West of Goring Road. Westbound	WB	274	251	289
2280	131	14139-131 Suffolk. Spring Road, West of Railway Line. Eastbound	EB	129	124	214
2281	131	14139-131 Suffolk. Spring Road, West of Railway Line. Westbound	WB	223	234	220
2282	132	14139-132 Suffolk. Wherstead Road. Northbound	NB	1064	527	853
2283	132	14139-132 Suffolk. Wherstead Road. Southbound	SB	770	532	1055
2284	133	14139-133 Suffolk. Fore Street, East of Grimwade St. Eastbound	EB	869	922	978
2285	133	14139-133 Suffolk. Fore Street, East of Grimwade St. Westbound	WB	1026	834	883
2286	134	14139-134 Suffolk. Fore Street, North of Lower Orwell St. Northbound	NB	125	124	144
2287	134	14139-134 Suffolk. Fore Street, North of Lower Orwell St. Southbound	SB	66	102	144
2288	135	14139-135 Suffolk. Foxhall Road, Near Railway Line. Eastbound	EB	346	295	387
2289	135	14139-135 Suffolk. Foxhall Road, Near Railway Line. Westbound	WB	381	243	286
2290	136	14112-136 Suffolk. Wherry Quay. Eastbound	EB	23	29	32
2291	137	London Road	EB	2	21	43
2292	137	London Road	WB	58	19	7
2293	138	Martlesham Park And Ride Exit	EB	14	21	47
2294	138	Martlesham Park And Ride Entrance	WB	62	19	10
2295	72B	Christchurch Street	NB	58	54	82
2296	72B	Christchurch Street	SB	233	120	173

Appendix D.3

MCC / ATC COMPARISON

PERCENTAGE DIFFERENCE

MCC	Arm	ATC	AM						IP						PM						Comment
			Direction	MCC Flow	ATC Flow	Direction	MCC Flow	ATC Flow	Direction	MCC Flow	ATC Flow	Direction	MCC Flow	ATC Flow	Direction	MCC Flow	ATC Flow	Direction	MCC Flow	ATC Flow	
1	C - A134	89	Eastbound	1081	866	Westbound	1392	1329	Eastbound	1068	1047	Westbound	1069	1038	Eastbound	1280	1115	Westbound	1232	1271	
2	A - A134 Compiegne Way (N)	100	Northbound	886	882	Southbound	927	926	Northbound	712	756	Southbound	697	712	Northbound	1046	1080	Southbound	882	931	
3	C - Newmarket Road (SE)	91	Northbound	446	409	Southbound	800	650	Northbound	444	468	Southbound	441	439	Northbound	790	750	Southbound	610	554	
3	D -Fornham Lane (SW)	92	Northbound	497	460	Southbound	424	394	Northbound	243	226	Southbound	235	224	Northbound	389	365	Southbound	465	434	
3	A - Tut Hill (N)	93	Northbound	654	643	Southbound	608	598	Northbound	377	302	Southbound	369	300	Northbound	654	611	Southbound	620	581	
4	D - A1302 Tayfen Road	108	Eastbound	720	587	Westbound	541	859	Eastbound	542	556	Westbound	555	624	Eastbound	560	563	Westbound	688	541	Links in between MCC and ATC
4	A - A1101 Out Northgate (N)	95	Northbound	450	674	Southbound	423	561	Northbound	403	601	Southbound	438	585	Northbound	583	658	Southbound	550	767	Links in between MCC and ATC
5	A - A1302 Parkway (N)	108	Eastbound	611	587	Westbound	577	859	Eastbound	611	556	Westbound	589	624	Eastbound	650	563	Westbound	431	541	Links in between MCCs
5	C - A1302 Parkway (S)	87	Northbound	680	999	Southbound	769	768	Northbound	776	768	Southbound	795	744	Northbound	948	633	Southbound	828	764	
6	C - A1302 Cullum Road (S)	88	Northbound	710	294	Southbound	387	824	Northbound	445	460	Southbound	448	431	Northbound	464	397	Southbound	363	347	AM Peak ATC value error
6	D - A143 Out Westgate (W)	MCC 23 Arm A	Eastbound	543	355	Westbound	607	349	Eastbound	457	411	Westbound	453	269	Eastbound	789	411	Westbound	539	313	Links in between MCC and ATC
7	A - A154 Candlet Road (E)	139	Southbound	862	859	Northbound	641	641	Southbound	527	554	Northbound	555	598	Southbound	602	603	Northbound	897	918	
8	B - A154 Walton Avenue (SE)	140	Eastbound	331	314	Westbound	320	335	Eastbound	281	272	Westbound	262	313	Eastbound	397	395	Westbound	422	392	
8	A54 Walton Avenue (W)	144	Eastbound	222	250	Westbound	189	228	Eastbound	204	237	Westbound	204	239	Eastbound	275	349	Westbound	345	317	Link in between MCC and ATC
9	D - A1156 (SW)	156	Eastbound	628	591	Westbound	619	597	Eastbound	413	651	Westbound	675	417	Eastbound	771	526	Westbound	631	746	Seven Hills Crematorium in between
10	C - A137 (S)	8	Northbound	583	558	Southbound	586	382	Northbound	325	293	Southbound	328	281	Northbound	591	426	Southbound	655	720	Links in between MCC and ATC
13	Bramford Road (W)	60	Eastbound	751	811	Westbound	747	745	Eastbound	507	538	Westbound	486	496	Eastbound	908	885	Westbound	715	710	
15	Arm A - A142 Forham Road (N)	41	Northbound	848	724	Southbound	871	574	Northbound	753	589	Southbound	671	575	Northbound	1220	1007	Southbound	924	810	Links in between MCC and ATC
15	Arm D - Fordham Road (S)	42	Northbound	682	681	Southbound	751	759	Northbound	634	651	Southbound	575	549	Northbound	1134	1126	Southbound	740	761	
16	Arm C - Old Station Road €	45	Eastbound	574	363	Westbound	460	266	Eastbound	456	277	Westbound	457	291	Eastbound	540	338	Westbound	582	412	Links in between MCC and ATC
16	ANPR Site 02	44	Northbound	436	435	Southbound	292	403	Northbound	417	377	Southbound	336	435	Northbound	448	387	Southbound	366	523	Links in between ANPR and ATC
17	Arm A - A1120 (N)	71	Northbound	502	493	Southbound	609	584	Northbound	268	272	Southbound	264	271	Northbound	521	514	Southbound	421	397	
20	B - GT. Cornard (SE)	31	Northbound	487	465	Southbound	385	360	Northbound	337	336	Southbound	480	456	Northbound	384	387	Southbound	664	671	
22	A - A1302 Out Risbygate €	90	Eastbound	494	485	Westbound	632	618	Eastbound	522	508	Westbound	494	506	Eastbound	615	625	Westbound	505	534	
23	B - A143 Out Westgate (NE)	MCC 6 Arm D	Northbound	533	607	Southbound	355	543	Northbound	386	453	Southbound	289	457	Northbound	360	539	Southbound	411	789	Links in between MCCs
24	Arm B	119	Northbound	328	277	Southbound	418	161	Northbound	211	132	Southbound	205	136	Northbound	357	172	Southbound	338	286	Links in between MCC and ATC
25	Arm A	128	Eastbound	485	487	Westbound	905	901	Eastbound	473	458	Westbound	449	434	Eastbound	1115	1142	Westbound	548	541	
26	Arm C	127	Eastbound	146	130	Westbound	293	285	Eastbound	172	171	Westbound	163	169	Eastbound	328	293	Westbound	177	178	
26	Arm B	122	Eastbound	166	156	Westbound	321	331	Eastbound	153	159	Westbound	146	148	Eastbound	421	423	Westbound	176	155	
30	Arm E	MCC 31 Arm A	Northbound	1260	1253	Southbound	1858	1922	Northbound	1253	1256	Southbound	1224	1264	Northbound	2191	2222	Southbound	1394	1459	
30	Arm F	38	Northbound	570	596	Southbound	632	584	Northbound	355	374	Southbound	419	391	Northbound	688	657	Southbound	596	524	
30	Arm A	37	Northbound	354	307	Southbound	408	409	Northbound	360	345	Southbound	293	336	Northbound	510	513	Southbound	421	431	
30	Arm B	36	Westbound	1366	1323	Eastbound	856	855	Westbound	877	929	Eastbound	854	931	Westbound	916	929	Eastbound	1497	1454	
30	Arm C	35	Eastbound	130	139	Westbound	175	184	Eastbound	113	111	Westbound	120	121	Eastbound	142	131	Westbound	183	179	
31	Arm A	MCC 30 Arm E	Northbound	1253	1260	Southbound	1922	1858	Northbound	1256	1253	Southbound	1264	1224	Northbound	2222	2191	Southbound	1459	1394	
33	Arm D	19	Northbound	384	386	Southbound	615	602	Northbound	455	445	Southbound	440	427	Northbound	617	657	Southbound	475	476	

Appendix D.4

MCC / ATC COUNT DIFFERENCE

MCC	Arm	ATC	AM						IP						PM						Comment
			Direction	MCC Flow	ATC Flow	Direction	MCC Flow	ATC Flow	Direction	MCC Flow	ATC Flow	Direction	MCC Flow	ATC Flow	Direction	MCC Flow	ATC Flow	Direction	MCC Flow	ATC Flow	
1	C - A134	89	Eastbound	1081	866	Westbound	1392	1329	Eastbound	1068	1047	Westbound	1069	1038	Eastbound	1280	1115	Westbound	1232	1271	
2	A - A134 Compiegne Way (N)	100	Northbound	886	882	Southbound	927	926	Northbound	712	756	Southbound	697	712	Northbound	1046	1080	Southbound	882	931	
3	C - Newmarket Road (SE)	91	Northbound	446	409	Southbound	800	650	Northbound	444	468	Southbound	441	439	Northbound	790	750	Southbound	610	554	
3	D -Fornham Lane (SW)	92	Northbound	497	460	Southbound	424	394	Northbound	243	226	Southbound	235	224	Northbound	389	365	Southbound	465	434	
3	A - Tut Hill (N)	93	Northbound	654	643	Southbound	608	598	Northbound	377	302	Southbound	369	300	Northbound	654	611	Southbound	620	581	
4	D - A1302 Tayfen Road	108	Eastbound	720	587	Westbound	541	859	Eastbound	542	556	Westbound	555	624	Eastbound	560	563	Westbound	688	541	Links in between MCC and ATC
4	A - A1101 Out Northgate (N)	95	Northbound	450	674	Southbound	423	561	Northbound	403	601	Southbound	438	585	Northbound	583	658	Southbound	550	767	Links in between MCC and ATC
5	A - A1302 Parkway (N)	108	Eastbound	611	587	Westbound	577	859	Eastbound	611	556	Westbound	589	624	Eastbound	650	563	Westbound	431	541	Links in between MCCs
5	C - A1302 Parkway (S)	87	Northbound	680	999	Southbound	769	768	Northbound	776	768	Southbound	795	744	Northbound	948	633	Southbound	828	764	
6	C - A1302 Cullum Road (S)	88	Northbound	710	294	Southbound	387	824	Northbound	445	460	Southbound	448	431	Northbound	464	397	Southbound	363	347	AM Peak ATC value error
6	D - A143 Out Westgate (W)	MCC 23 Arm A	Eastbound	543	355	Westbound	607	349	Eastbound	457	411	Westbound	453	269	Eastbound	789	411	Westbound	539	313	Links in between MCC and ATC
7	A - A154 Candlet Road €	139	Southbound	862	859	Northbound	641	641	Southbound	527	554	Northbound	555	598	Southbound	602	603	Northbound	897	918	
8	B - A154 Walton Avenue (SE)	140	Eastbound	331	314	Westbound	320	335	Eastbound	281	272	Westbound	262	313	Eastbound	397	395	Westbound	422	392	
8	A54 Walton Avenue (W)	144	Eastbound	222	250	Westbound	189	228	Eastbound	204	237	Westbound	204	239	Eastbound	275	349	Westbound	345	317	Link in between MCC and ATC
9	D - A1156 (SW)	156	Eastbound	628	591	Westbound	619	597	Eastbound	413	651	Westbound	675	417	Eastbound	771	526	Westbound	631	746	Seven Hills Crematorium in between
10	C - A137 (S)	8	Northbound	583	558	Southbound	586	382	Northbound	325	293	Southbound	328	281	Northbound	591	426	Southbound	655	720	Links in between MCC and ATC
13	Bramford Road (W)	60	Eastbound	751	811	Westbound	747	745	Eastbound	507	538	Westbound	486	496	Eastbound	908	885	Westbound	715	710	
15	Arm A - A142 Forham Road (N)	41	Northbound	848	724	Southbound	871	574	Northbound	753	589	Southbound	671	575	Northbound	1220	1007	Southbound	924	810	Links in between MCC and ATC
15	Arm D - Fordham Road (S)	42	Northbound	682	681	Southbound	751	759	Northbound	634	651	Southbound	575	549	Northbound	1134	1126	Southbound	740	761	
16	Arm C - Old Station Road €	45	Eastbound	574	363	Westbound	460	266	Eastbound	456	277	Westbound	457	291	Eastbound	540	338	Westbound	582	412	Links in between MCC and ATC
16	ANPR Site 02	44	Northbound	436	435	Southbound	292	403	Northbound	417	377	Southbound	336	435	Northbound	448	387	Southbound	366	523	Links in between ANPR and ATC
17	Arm A - A1120 (N)	71	Northbound	502	493	Southbound	609	584	Northbound	268	272	Southbound	264	271	Northbound	521	514	Southbound	421	397	
20	B - GT. Cornard (SE)	31	Northbound	487	465	Southbound	385	360	Northbound	337	336	Southbound	480	456	Northbound	384	387	Southbound	664	671	
22	A - A1302 Out Risbygate (E)	90	Eastbound	494	485	Westbound	632	618	Eastbound	522	508	Westbound	494	506	Eastbound	615	625	Westbound	505	534	
23	B - A143 Out Westgate (NE)	MCC 6 Arm D	Northbound	533	607	Southbound	355	543	Northbound	386	453	Southbound	289	457	Northbound	360	539	Southbound	411	789	Links in between MCCs
24	Arm B	119	Northbound	328	277	Southbound	418	161	Northbound	211	132	Southbound	205	136	Northbound	357	172	Southbound	338	286	Links in between MCC and ATC
25	Arm A	128	Eastbound	485	487	Westbound	905	901	Eastbound	473	458	Westbound	449	434	Eastbound	1115	1142	Westbound	548	541	
26	Arm C	127	Eastbound	146	130	Westbound	293	285	Eastbound	172	171	Westbound	163	169	Eastbound	328	293	Westbound	177	178	
26	Arm B	122	Eastbound	166	156	Westbound	321	331	Eastbound	153	159	Westbound	146	148	Eastbound	421	423	Westbound	176	155	
30	Arm E	MCC 31 Arm A	Northbound	1260	1253	Southbound	1858	1922	Northbound	1253	1256	Southbound	1224	1264	Northbound	2191	2222	Southbound	1394	1459	
30	Arm F	38	Northbound	570	596	Southbound	632	584	Northbound	355	374	Southbound	419	391	Northbound	688	657	Southbound	596	524	
30	Arm A	37	Northbound	354	307	Southbound	408	409	Northbound	360	345	Southbound	293	336	Northbound	510	513	Southbound	421	431	
30	Arm B	36	Westbound	1366	1323	Eastbound	856	855	Westbound	877	929	Eastbound	854	931	Westbound	916	929	Eastbound	1497	1454	
30	Arm C	35	Eastbound	130	139	Westbound	175	184	Eastbound	113	111	Westbound	120	121	Eastbound	142	131	Westbound	183	179	
31	Arm A	MCC 30 Arm E	Northbound	1253	1260	Southbound	1922	1858	Northbound	1256	1253	Southbound	1264	1224	Northbound	2222	2191	Southbound	1459	1394	
33	Arm D	19	Northbound	384	386	Southbound	615	602	Northbound	455	445	Southbound	440	427	Northbound	617	657	Southbound	475	476	

Appendix E

MCC DATA SUMMARY

Appendix E.1

MCC AVERAGE TRAFFIC FLOW

BY PEAK HOUR

SMV ID	Ref	Site Location	Date	AM	IP	PM
697	Jn 1	Jn 1 Ransomes Way - Nacton Road from Ransomes Way	Jul-15	443	720	769
698	Jn 1	Jn 1 Ransomes Way - Nacton Road from Bluestern Road	Jul-15	159	222	468
699	Jn 1	Jn 1 Ransomes Way - Nacton Road from A1189 Nacton Road	Jul-15	1163	943	1013
700	Jn 1	Jn 1 Ransomes Way - Nacton Road from Ravenwood Avenue	Jul-15	542	425	399
701	Jn 1	Jn 1 Ransomes Way - Nacton Road from Nacton Road	Jul-15	562	715	773
702	Jn 2	Jn 2 Ransomes Way N - Ransomes Way S from Ransomes Way N	Jul-15	866	762	771
703	Jn 2	Jn 2 Ransomes Way N - Ransomes Way S from The Sandlings	Jul-15	58	345	216
704	Jn 2	Jn 2 Ransomes Way N - Ransomes Way S from Central Avenue	Jul-15	109	233	431
705	Jn 2	Jn 2 Ransomes Way N - Ransomes Way S from Ransomes Way S	Jul-15	747	688	577
706	Jn 2	Jn 2 Ransomes Way N - Ransomes Way S from James Bennet Avenue	Jul-15	209	259	203
707	Jn 3	Jn 3 Felixstowe Road - Ransomes Way from Murrils Road	Jul-15	328	469	462
708	Jn 3	Jn 3 Felixstowe Road - Ransomes Way from Felixstowe Road E	Jul-15	419	381	475
709	Jn 3	Jn 3 Felixstowe Road - Ransomes Way from Ransomes Way	Jul-15	602	771	813
710	Jn 3	Jn 3 Felixstowe Road - Ransomes Way from Felixstowe Road W	Jul-15	1130	891	906
711	Jn 4	Jn 4 Rands Way - Nacton Road from Rands Way	Jul-15	220	173	252
712	Jn 4	Jn 4 Rands Way - Nacton Road from Nacton Road E	Jul-15	553	581	708
713	Jn 4	Jn 4 Rands Way - Nacton Road from Landseer Road	Jul-15	426	380	478
714	Jn 4	Jn 4 Rands Way - Nacton Road from Nacton Road W	Jul-15	294	367	364
715	Jn 5	Jn 5 Bixley Road - Felixstowe Road from Bixley Road	Jul-15	1137	1011	1080
716	Jn 5	Jn 5 Bixley Road - Felixstowe Road from Bucklesham Road	Jul-15	160	115	205
717	Jn 5	Jn 5 Bixley Road - Felixstowe Road from Felixstowe Road S	Jul-15	856	892	1014
718	Jn 5	Jn 5 Bixley Road - Felixstowe Road from Felixstowe Road W	Jul-15	894	581	783
719	Jn 6	Jn 6 Heath Road - Bixley Road from Heath Road	Jul-15	778	774	794
720	Jn 6	Jn 6 Heath Road - Bixley Road from Foxhall Road E	Jul-15	427	398	472
721	Jn 6	Jn 6 Heath Road - Bixley Road from Bixley Road	Jul-15	885	841	950
722	Jn 6	Jn 6 Heath Road - Bixley Road from Foxhall Road W	Jul-15	461	380	470
723	Jn 7	Jn 7 Woodbridge Road - Heath Road from Woodbridge Road E	Jul-15	932	762	839
724	Jn 7	Jn 7 Woodbridge Road - Heath Road from Heath Road	Jul-15	775	862	1070
725	Jn 7	Jn 7 Woodbridge Road - Heath Road from Woodbridge Road W	Jul-15	1395	1313	1477
726	Jn 8	Jn 8 Woodbridge Road - Colchester Road from Woodbridge Road E	Jul-15	1380	1294	1548
727	Jn 8	Jn 8 Woodbridge Road - Colchester Road from Hospital Entrance	Jul-15	42	52	120
728	Jn 8	Jn 8 Woodbridge Road - Colchester Road from Woodbridge Road W	Jul-15	602	499	577
729	Jn 8	Jn 8 Woodbridge Road - Colchester Road from Colchester Road	Jul-15	796	769	835
730	Jn 9	Jn 9 Cauldwell Hall Road - St John's Road from Cauldwell Hall Road N	Jul-15	318	249	334
731	Jn 9	Jn 9 Cauldwell Hall Road - St John's Road from Freehold Road	Jul-15	152	86	115

SMV ID	Ref	Site Location	Date	AM	IP	PM
732	Jn 9	Jn 9 Cauldwell Hall Road - St John's Road from Cauldwell Hall Road S	Jul-15	408	278	398
733	Jn 9	Jn 9 Cauldwell Hall Road - St John's Road from Marlborough Road	Jul-15	19	12	15
734	Jn 9	Jn 9 Cauldwell Hall Road - St John's Road from St John's Road	Jul-15	38	43	75
735	Jn 10	Jn 10 Cauldwell Hall Road - Foxhall Road from Cauldwell Hall Road	Jul-15	245	220	245
736	Jn 10	Jn 10 Cauldwell Hall Road - Foxhall Road from Foxhall Road E	Jul-15	353	293	310
737	Jn 10	Jn 10 Cauldwell Hall Road - Foxhall Road from Derby Road	Jul-15	272	232	280
738	Jn 10	Jn 10 Cauldwell Hall Road - Foxhall Road from Foxhall Road W	Jul-15	275	241	264
739	Jn 11	Jn 11 Felixstowe Road - Bishops Hill from Rosehill Road	Jul-15	21	16	11
740	Jn 11	Jn 11 Felixstowe Road - Bishops Hill from Felixstowe Road	Jul-15	246	259	250
741	Jn 11	Jn 11 Felixstowe Road - Bishops Hill from Nacton Road	Jul-15	123	127	99
742	Jn 11	Jn 11 Felixstowe Road - Bishops Hill from Bishops Hill	Jul-15	391	478	591
743	Jn 12	Jn 12 Duke Street - Cliff Road from Duke Street	Jul-15	338	346	359
744	Jn 12	Jn 12 Duke Street - Cliff Road from Myrtle Road	Jul-15	20	43	60
745	Jn 12	Jn 12 Duke Street - Cliff Road from Holywells Road	Jul-15	243	320	309
746	Jn 12	Jn 12 Duke Street - Cliff Road from Cliff Road	Jul-15	81	57	58
747	Jn 13	Jn 13 Back Hamlet - Fore Hamlet from Back Hamlet	Jul-15	0	0	0
748	Jn 13	Jn 13 Back Hamlet - Fore Hamlet from Fore Hamlet E	Jul-15	358	375	347
749	Jn 13	Jn 13 Back Hamlet - Fore Hamlet from Duke Street	Jul-15	376	374	404
750	Jn 13	Jn 13 Back Hamlet - Fore Hamlet from Fore Hamlet W	Jul-15	928	904	1007
751	Jn 14	Jn 14 Bridge Street - Vernon Street from Bridge Street	Jul-15	856	858	1223
752	Jn 14	Jn 14 Bridge Street - Vernon Street from Dock Street	Jul-15	0	0	0
753	Jn 14	Jn 14 Bridge Street - Vernon Street from Vernon Street	Jul-15	877	545	690
754	Jn 14	Jn 14 Bridge Street - Vernon Street from Burrell Road	Jul-15	572	419	436
755	Jn 15	Jn 15 Hawes Street - Vernon Street from Felaw Street	Jul-15	36	29	100
756	Jn 15	Jn 15 Hawes Street - Vernon Street from Mather Way	Jul-15	0	15	102
757	Jn 15	Jn 15 Hawes Street - Vernon Street from Hawes Street	Jul-15	1013	538	634
758	Jn 15	Jn 15 Hawes Street - Vernon Street from Vernon Street	Jul-15	532	463	695
759	Jn 16	Jn 16 Hawes Street - Station Street from Hawes Street N	Jul-15	462	456	806
760	Jn 16	Jn 16 Hawes Street - Station Street from Bath Street	Jul-15	111	75	185
761	Jn 16	Jn 16 Hawes Street - Station Street from Hawes Street S	Jul-15	982	540	754
762	Jn 16	Jn 16 Hawes Street - Station Street from Station Street	Jul-15	368	213	284
763	Jn 17	Jn 17 Hawes Street - Wherstead Road from Hawes Street	Jul-15	626	536	1001
764	Jn 17	Jn 17 Hawes Street - Wherstead Road from Virginia Street	Jul-15	16	12	13
765	Jn 17	Jn 17 Hawes Street - Wherstead Road from Rapier Street	Jul-15	76	59	96
766	Jn 17	Jn 17 Hawes Street - Wherstead Road from Wherstead Road S	Jul-15	1064	566	863

SMV ID	Ref	Site Location	Date	AM	IP	PM
767	Jn 17	Jn 17 Hawes Street - Wherstead Road from Wherstead Road W	Jul-15	170	63	120
768	Jn 18	Jn 18 Belstead Road - Luther Road from Belstead Road N	Jul-15	274	333	577
769	Jn 18	Jn 18 Belstead Road - Luther Road from Luther Road	Jul-15	237	185	313
770	Jn 18	Jn 18 Belstead Road - Luther Road from Belstead Road S	Jul-15	696	365	390
771	Jn 19	Jn 19 Belstead Road - Ancaster Road from Belstead Road N	Jul-15	259	344	637
772	Jn 19	Jn 19 Belstead Road - Ancaster Road from Oak Hill Lane	Jul-15	2	5	6
773	Jn 19	Jn 19 Belstead Road - Ancaster Road from Belstead Road S	Jul-15	696	361	388
774	Jn 19	Jn 19 Belstead Road - Ancaster Road from Ancaster Road	Jul-15	4	6	5
775	Jn 20	Jn 20 Birkfield Drive - Stone Lodge Lane from Birkfield Drive N	Jul-15	206	196	328
776	Jn 20	Jn 20 Birkfield Drive - Stone Lodge Lane from Stone Lodge Lane E	Jul-15	168	126	201
777	Jn 20	Jn 20 Birkfield Drive - Stone Lodge Lane from Birkfield Drive S	Jul-15	221	122	144
778	Jn 20	Jn 20 Birkfield Drive - Stone Lodge Lane from Stone Lodge Lane W	Jul-15	167	85	144
779	Jn 21	Jn 21 Princes Street - Burrell Road from Princes Street	Jul-15	207	267	557
780	Jn 21	Jn 21 Princes Street - Burrell Road from Burrell Road	Jul-15	356	268	364
781	Jn 21	Jn 21 Princes Street - Burrell Road from Station Yard	Jul-15	107	85	94
782	Jn 21	Jn 21 Princes Street - Burrell Road from Ranelagh Road	Jul-15	639	435	499
783	Jn 22	Jn 22 Princes Street - Civic Drive from Princes Street N	Jul-15	111	207	238
784	Jn 22	Jn 22 Princes Street - Civic Drive from Franciscan Way	Jul-15	352	442	467
785	Jn 22	Jn 22 Princes Street - Civic Drive from Princes Street S	Jul-15	218	224	545
786	Jn 22	Jn 22 Princes Street - Civic Drive from Civic Drive	Jul-15	710	537	492
787	Jn 23	Jn 23 Civic Drive - Handford Road from Civic Drive N	Jul-15	1456	768	722
788	Jn 23	Jn 23 Civic Drive - Handford Road from Car Park Entrance	Jul-15	4	43	85
789	Jn 23	Jn 23 Civic Drive - Handford Road from Civic Drive S	Jul-15	509	655	999
790	Jn 23	Jn 23 Civic Drive - Handford Road from Handford Road	Jul-15	455	524	582
791	Jn 24	Jn 24 Berner's Street - St Matthews Street from Berner's Street	Jul-15	591	251	243
792	Jn 24	Jn 24 Berner's Street - St Matthews Street from St Matthews Street NW	Jul-15	592	539	594
793	Jn 24	Jn 24 Berner's Street - St Matthews Street from Civic Drive	Jul-15	627	844	1332
794	Jn 24	Jn 24 Berner's Street - St Matthews Street from St Matthews Street SE	Jul-15	724	514	463
795	Jn 25	Jn 25 Fonnereau Road - Crown Street from Fonnereau Road	Jul-15	160	153	221
796	Jn 25	Jn 25 Fonnereau Road - Crown Street from St Margarets Street	Jul-15	684	567	554
797	Jn 25	Jn 25 Fonnereau Road - Crown Street from Northgate Street	Jul-15	36	82	114
798	Jn 25	Jn 25 Fonnereau Road - Crown Street from Crown Street	Jul-15	410	485	541
799	Jn 26	Jn 26 Grimwade Street - Fore Street from Grimwade Street	Jul-15	1402	1301	1476
800	Jn 26	Jn 26 Grimwade Street - Fore Street from Fore Street E	Jul-15	729	749	746
801	Jn 26	Jn 26 Grimwade Street - Fore Street from Neptune Square	Jul-15	11	3	1

SMV ID	Ref	Site Location	Date	AM	IP	PM
802	Jn 26	Jn 26 Grimwade Street - Fore Street from Fore Street W	Jul-15	0	0	0
803	Jn 27	Jn 27 Grimwade Street - Star Lane from Grimwade Street N	Jul-15	666	559	655
804	Jn 27	Jn 27 Grimwade Street - Star Lane from Grimwade Street S	Jul-15	0	0	0
805	Jn 27	Jn 27 Grimwade Street - Star Lane from Star Lane	Jul-15	724	721	755
806	Jn 28	Jn 28 Waterworks Street - Star Lane from Waterworks Street	Jul-15	0	0	0
807	Jn 28	Jn 28 Waterworks Street - Star Lane from Star Lane E	Jul-15	0	0	0
808	Jn 28	Jn 28 Waterworks Street - Star Lane from Star Lane W	Jul-15	1061	1029	1172
809	Jn 29	Jn 29 Star Lane - Fore Street from Star Lane N	Jul-15	0	0	0
810	Jn 29	Jn 29 Star Lane - Fore Street from Fore Street E	Jul-15	1	5	8
811	Jn 29	Jn 29 Star Lane - Fore Street from Star Lane S	Jul-15	1082	1014	1065
812	Jn 29	Jn 29 Star Lane - Fore Street from Fore Street W	Jul-15	38	85	140
813	Jn 31	Jn 31 Slade Street - Key Street from Slade Street	Jul-15	0	0	0
814	Jn 31	Jn 31 Slade Street - Key Street from Key Street E	Jul-15	1221	1156	1240
815	Jn 31	Jn 31 Slade Street - Key Street from Key Street W	Jul-15	0	0	0
816	Jn 32	Jn 32 Lower Orwell Street - Key Street from Lower Orwell Street	Jul-15	45	104	156
817	Jn 32	Jn 32 Lower Orwell Street - Key Street from Key Street E	Jul-15	1086	994	1089
818	Jn 32	Jn 32 Lower Orwell Street - Key Street from Key Street W	Jul-15	0	0	0
819	Jn 33	Jn 33 Foundation Street - Star Lane from Foundation Street N	Jul-15	33	98	151
820	Jn 33	Jn 33 Foundation Street - Star Lane from Star Lane E	Jul-15	0	0	0
821	Jn 33	Jn 33 Foundation Street - Star Lane from Foundation Street S	Jul-15	0	0	0
822	Jn 33	Jn 33 Foundation Street - Star Lane from Star Lane W	Jul-15	1358	1052	1140
823	Jn 34	Jn 34 Upper Brook Street - Dogs Head Street from Upper Brook Street	Jul-15	0	0	0
824	Jn 34	Jn 34 Upper Brook Street - Dogs Head Street from Tachet Street	Jul-15	40	61	106
825	Jn 34	Jn 34 Upper Brook Street - Dogs Head Street from Lower Brook Street	Jul-15	19	35	67
826	Jn 34	Jn 34 Upper Brook Street - Dogs Head Street from Dogs Head Street	Jul-15	74	74	84
827	Jn 35	Jn 35 Warwick Road - St Helen's Street from Warwick Road	Jul-15	72	63	72
828	Jn 35	Jn 35 Warwick Road - St Helen's Street from Spring Road	Jul-15	231	278	258
829	Jn 35	Jn 35 Warwick Road - St Helen's Street from Grove Lane	Jul-15	207	267	307
830	Jn 35	Jn 35 Warwick Road - St Helen's Street from St Helen's Street	Jul-15	188	267	441
831	Jn 36	Jn 36 Bond Street - Eagle Street from Bond Street	Jul-15	0	0	0
832	Jn 36	Jn 36 Bond Street - Eagle Street from Rope Walk	Jul-15	26	33	37
833	Jn 36	Jn 36 Bond Street - Eagle Street from Waterworks Street	Jul-15	273	313	432
834	Jn 36	Jn 36 Bond Street - Eagle Street from Eagle Street	Jul-15	6	31	79
835	Jn 37	Jn 37 Grimwalde Street - Rope Walk from Grimwade Street N	Jul-15	725	589	680
836	Jn 37	Jn 37 Grimwalde Street - Rope Walk from Rope Walk E	Jul-15	0	0	0

SMV ID	Ref	Site Location	Date	AM	IP	PM
837	Jn 37	Jn 37 Grimwalde Street - Rope Walk from Grimwade Street S	Jul-15	0	0	0
838	Jn 37	Jn 37 Grimwalde Street - Rope Walk from Rope Walk W	Jul-15	0	0	0
839	Jn 38	Jn 38 Foxhall Road - Grove Lane from Foxhall Road	Jul-15	499	290	312
840	Jn 38	Jn 38 Foxhall Road - Grove Lane from Back Hamlet	Jul-15	190	192	295
841	Jn 38	Jn 38 Foxhall Road - Grove Lane from Grove Lane	Jul-15	218	189	306
842	Jn 39	Jn 39 Britannia Road - Foxhall Road from Britannia Road	Jul-15	109	65	89
843	Jn 39	Jn 39 Britannia Road - Foxhall Road from Foxhall Road E	Jul-15	369	357	474
844	Jn 39	Jn 39 Britannia Road - Foxhall Road from Dover Road	Jul-15	45	25	35
845	Jn 39	Jn 39 Britannia Road - Foxhall Road from Foxhall Road W	Jul-15	464	306	355
846	Jn 40	Jn 40 Clapgate Lane - Landseer Road from Clapgate Lane N	Jul-15	163	142	183
847	Jn 40	Jn 40 Clapgate Lane - Landseer Road from Landseer Road E	Jul-15	482	379	396
848	Jn 40	Jn 40 Clapgate Lane - Landseer Road from Clapgate Lane S	Jul-15	215	131	166
849	Jn 40	Jn 40 Clapgate Lane - Landseer Road from Landseer Road W	Jul-15	375	345	455
850	Jn 41	Jn 41 Holywells Road - Landseer Road from Holywells Road	Jul-15	325	328	412
851	Jn 41	Jn 41 Holywells Road - Landseer Road from Cliff Lane	Jul-15	180	99	82
852	Jn 41	Jn 41 Holywells Road - Landseer Road from Landseer Road	Jul-15	419	313	342
853	Jn 41	Jn 41 Holywells Road - Landseer Road from Clinic Entrance	Jul-15	12	21	4
854	Jn 42	Jn 42 Levington Road - Nacton Road from Levington Road	Jul-15	26	26	30
855	Jn 42	Jn 42 Levington Road - Nacton Road from Nacton Road E	Jul-15	229	220	242
856	Jn 42	Jn 42 Levington Road - Nacton Road from Clapgate Lane	Jul-15	248	144	187
857	Jn 42	Jn 42 Levington Road - Nacton Road from Nacton Road W	Jul-15	246	250	339
858	Jn 43	Jn 43 A14 - Nacton Road from The Havens	Jul-15	397	384	906
859	Jn 43	Jn 43 A14 - Nacton Road from A14 EB Merge J57	Jul-15	0	0	0
860	Jn 43	Jn 43 A14 - Nacton Road from Nacton Road SE	Jul-15	493	330	230
861	Jn 43	Jn 43 A14 - Nacton Road from A14 EB Diverge J57	Jul-15	1474	781	994
862	Jn 43	Jn 43 A14 - Nacton Road from Nacton Road W	Jul-15	843	946	1357
863	Jn 44	Jn 44 A14 - Nacton Road from Nacton Road N	Jul-15	789	762	1518
864	Jn 44	Jn 44 A14 - Nacton Road from A14 WB Diverge J57	Jul-15	536	294	208
865	Jn 44	Jn 44 A14 - Nacton Road from Nacton Road S	Jul-15	65	59	97
866	Jn 44	Jn 44 A14 - Nacton Road from A14 WB Merge J57	Jul-15	0	0	0
867	Jn 45	Jn 45 Brunswick Road - Albion Hill from Brunswick Road	Jul-15	121	60	92
868	Jn 45	Jn 45 Brunswick Road - Albion Hill from Woodbridge Road	Jul-15	572	311	375
869	Jn 45	Jn 45 Brunswick Road - Albion Hill from St Mary's Road	Jul-15	123	43	33
870	Jn 45	Jn 45 Brunswick Road - Albion Hill from Albion Hill	Jul-15	448	415	479
871	Jn 46	Jn 46 Rushmere Road - Woodbridge Road from Rushmere Road	Jul-15	215	162	176

SMV ID	Ref	Site Location	Date	AM	IP	PM
872	Jn 46	Jn 46 Rushmere Road - Woodbridge Road from Woodbridge Road E	Jul-15	411	258	387
873	Jn 46	Jn 46 Rushmere Road - Woodbridge Road from Cauldwell Hall Road	Jul-15	240	207	264
874	Jn 46	Jn 46 Rushmere Road - Woodbridge Road from Woodbridge Road W	Jul-15	549	505	623
875	Jn 47	Jn 47 A137 - A14 from A137 N	Jul-15	662	446	737
876	Jn 47	Jn 47 A137 - A14 from A14 WB Diverge J56	Jul-15	647	453	953
877	Jn 47	Jn 47 A137 - A14 from A137 S	Jul-15	571	381	538
878	Jn 47	Jn 47 A137 - A14 from A14 WB Merge J56	Jul-15	0	0	0
879	Jn 48	Jn 48 A137 - A14 from A137 N	Jul-15	983	620	1058
880	Jn 48	Jn 48 A137 - A14 from A14 EB Merge J56	Jul-15	0	0	0
881	Jn 48	Jn 48 A137 - A14 from A137 S	Jul-15	910	553	929
882	Jn 48	Jn 48 A137 - A14 from A14 EB Diverge J56	Jul-15	519	313	504
883	Jn 49	Jn 49 Wherstead Road - A137 from Wherstead Road	Jul-15	867	604	1130
884	Jn 49	Jn 49 Wherstead Road - A137 from The Strand	Jul-15	574	373	379
885	Jn 49	Jn 49 Wherstead Road - A137 from A137	Jul-15	1006	608	1054
886	Jn 50	Jn 50 Wherstead Road - Bostock Road from Wherstead Road N	Jul-15	813	550	1065
887	Jn 50	Jn 50 Wherstead Road - Bostock Road from Industrial Estate	Jul-15	17	27	27
888	Jn 50	Jn 50 Wherstead Road - Bostock Road from Wherstead Road S	Jul-15	1071	616	905
889	Jn 50	Jn 50 Wherstead Road - Bostock Road from Bostock Road	Jul-15	7	5	3
890	Jn 1	Jn 1 Ransomes Way - Nacton Road to Ransomes Way	Jul-15	760	684	585
891	Jn 1	Jn 1 Ransomes Way - Nacton Road to Bluestern Road	Jul-15	228	199	65
892	Jn 1	Jn 1 Ransomes Way - Nacton Road to A1189 Nacton Road	Jul-15	788	953	1354
893	Jn 1	Jn 1 Ransomes Way - Nacton Road to Ravenwood Avenue	Jul-15	370	444	591
894	Jn 1	Jn 1 Ransomes Way - Nacton Road to Nacton Road	Jul-15	720	739	826
895	Jn 2	Jn 2 Ransomes Way N - Ransomes Way S to Ransomes Way N	Jul-15	616	766	905
896	Jn 2	Jn 2 Ransomes Way N - Ransomes Way S to The Sandlings	Jul-15	94	347	196
897	Jn 2	Jn 2 Ransomes Way N - Ransomes Way S to Central Avenue	Jul-15	722	229	109
898	Jn 2	Jn 2 Ransomes Way N - Ransomes Way S to Ransomes Way S	Jul-15	435	720	789
899	Jn 2	Jn 2 Ransomes Way N - Ransomes Way S to James Bennet Avenue	Jul-15	121	219	197
900	Jn 3	Jn 3 Felixstowe Road - Ransomes Way to Murrils Road	Jul-15	292	542	528
901	Jn 3	Jn 3 Felixstowe Road - Ransomes Way to Felixstowe Road E	Jul-15	473	308	392
902	Jn 3	Jn 3 Felixstowe Road - Ransomes Way to Ransomes Way	Jul-15	871	766	762
903	Jn 3	Jn 3 Felixstowe Road - Ransomes Way to Felixstowe Road W	Jul-15	840	884	964
904	Jn 4	Jn 4 Rands Way - Nacton Road to Rands Way	Jul-15	199	135	213
905	Jn 4	Jn 4 Rands Way - Nacton Road to Nacton Road E	Jul-15	548	621	677
906	Jn 4	Jn 4 Rands Way - Nacton Road to Landseer Road	Jul-15	470	398	447

SMV ID	Ref	Site Location	Date	AM	IP	PM
907	Jn 4	Jn 4 Rands Way - Nacton Road to Nacton Road W	Jul-15	275	337	456
908	Jn 5	Jn 5 Bixley Road - Felixstowe Road to Bixley Road	Jul-15	1121	1005	1292
909	Jn 5	Jn 5 Bixley Road - Felixstowe Road to Bucklesham Road	Jul-15	137	103	102
910	Jn 5	Jn 5 Bixley Road - Felixstowe Road to Felixstowe Road S	Jul-15	1125	899	921
911	Jn 5	Jn 5 Bixley Road - Felixstowe Road to Felixstowe Road W	Jul-15	656	575	752
912	Jn 6	Jn 6 Heath Road - Bixley Road to Heath Road	Jul-15	892	785	833
913	Jn 6	Jn 6 Heath Road - Bixley Road to Foxhall Road E	Jul-15	440	398	524
914	Jn 6	Jn 6 Heath Road - Bixley Road to Bixley Road	Jul-15	785	860	905
915	Jn 6	Jn 6 Heath Road - Bixley Road to Foxhall Road W	Jul-15	417	334	411
916	Jn 7	Jn 7 Woodbridge Road - Heath Road to Woodbridge Road E	Jul-15	754	810	1085
917	Jn 7	Jn 7 Woodbridge Road - Heath Road to Heath Road	Jul-15	994	839	752
918	Jn 7	Jn 7 Woodbridge Road - Heath Road to Woodbridge Road W	Jul-15	1245	1190	1476
919	Jn 8	Jn 8 Woodbridge Road - Colchester Road to Woodbridge Road E	Jul-15	1345	1242	1416
920	Jn 8	Jn 8 Woodbridge Road - Colchester Road to Hospital Entrance	Jul-15	124	34	25
921	Jn 8	Jn 8 Woodbridge Road - Colchester Road to Woodbridge Road W	Jul-15	585	516	650
922	Jn 8	Jn 8 Woodbridge Road - Colchester Road to Colchester Road	Jul-15	720	753	932
923	Jn 9	Jn 9 Cauldwell Hall Road - St John's Road to Cauldwell Hall Road N	Jul-15	337	246	328
924	Jn 9	Jn 9 Cauldwell Hall Road - St John's Road to Freehold Road	Jul-15	113	75	169
925	Jn 9	Jn 9 Cauldwell Hall Road - St John's Road to Cauldwell Hall Road S	Jul-15	303	248	309
926	Jn 9	Jn 9 Cauldwell Hall Road - St John's Road to Marlborough Road	Jul-15	124	45	90
927	Jn 9	Jn 9 Cauldwell Hall Road - St John's Road to St John's Road	Jul-15	57	55	41
928	Jn 10	Jn 10 Cauldwell Hall Road - Foxhall Road to Cauldwell Hall Road	Jul-15	239	211	240
929	Jn 10	Jn 10 Cauldwell Hall Road - Foxhall Road to Foxhall Road E	Jul-15	317	296	340
930	Jn 10	Jn 10 Cauldwell Hall Road - Foxhall Road to Derby Road	Jul-15	331	279	316
931	Jn 10	Jn 10 Cauldwell Hall Road - Foxhall Road to Foxhall Road W	Jul-15	258	199	203
932	Jn 11	Jn 11 Felixstowe Road - Bishops Hill to Rosehill Road	Jul-15	15	12	17
933	Jn 11	Jn 11 Felixstowe Road - Bishops Hill to Felixstowe Road	Jul-15	274	300	358
934	Jn 11	Jn 11 Felixstowe Road - Bishops Hill to Nacton Road	Jul-15	125	183	240
935	Jn 11	Jn 11 Felixstowe Road - Bishops Hill to Bishops Hill	Jul-15	367	384	336
936	Jn 12	Jn 12 Duke Street - Cliff Road to Duke Street	Jul-15	247	336	312
937	Jn 12	Jn 12 Duke Street - Cliff Road to Myrtle Road	Jul-15	112	80	72
938	Jn 12	Jn 12 Duke Street - Cliff Road to Holywells Road	Jul-15	270	296	340
939	Jn 12	Jn 12 Duke Street - Cliff Road to Cliff Road	Jul-15	50	45	53
940	Jn 13	Jn 13 Back Hamlet - Fore Hamlet to Back Hamlet	Jul-15	219	147	194
941	Jn 13	Jn 13 Back Hamlet - Fore Hamlet to Fore Hamlet E	Jul-15	338	426	489

SMV ID	Ref	Site Location	Date	AM	IP	PM
942	Jn 13	Jn 13 Back Hamlet - Fore Hamlet to Duke Street	Jul-15	371	331	324
943	Jn 13	Jn 13 Back Hamlet - Fore Hamlet to Fore Hamlet W	Jul-15	734	749	751
944	Jn 14	Jn 14 Bridge Street - Vernon Street to Bridge Street	Jul-15	1375	886	995
945	Jn 14	Jn 14 Bridge Street - Vernon Street to Dock Street	Jul-15	22	21	15
946	Jn 14	Jn 14 Bridge Street - Vernon Street to Vernon Street	Jul-15	533	464	679
947	Jn 14	Jn 14 Bridge Street - Vernon Street to Burrell Road	Jul-15	375	453	660
948	Jn 15	Jn 15 Hawes Street - Vernon Street to Felaw Street	Jul-15	128	35	35
949	Jn 15	Jn 15 Hawes Street - Vernon Street to Mather Way	Jul-15	115	12	3
950	Jn 15	Jn 15 Hawes Street - Vernon Street to Hawes Street	Jul-15	457	454	810
951	Jn 15	Jn 15 Hawes Street - Vernon Street to Vernon Street	Jul-15	878	539	680
952	Jn 16	Jn 16 Hawes Street - Station Street to Hawes Street N	Jul-15	1015	535	615
953	Jn 16	Jn 16 Hawes Street - Station Street to Bath Street	Jul-15	131	56	68
954	Jn 16	Jn 16 Hawes Street - Station Street to Hawes Street S	Jul-15	616	537	1001
955	Jn 16	Jn 16 Hawes Street - Station Street to Station Street	Jul-15	158	152	341
956	Jn 17	Jn 17 Hawes Street - Wherstead Road to Hawes Street	Jul-15	980	538	750
957	Jn 17	Jn 17 Hawes Street - Wherstead Road to Virginia Street	Jul-15	18	12	22
958	Jn 17	Jn 17 Hawes Street - Wherstead Road to Rapier Street	Jul-15	72	59	74
959	Jn 17	Jn 17 Hawes Street - Wherstead Road to Wherstead Road S	Jul-15	780	561	1088
960	Jn 17	Jn 17 Hawes Street - Wherstead Road to Wherstead Road W	Jul-15	96	59	144
961	Jn 18	Jn 18 Belstead Road - Luther Road to Belstead Road N	Jul-15	622	341	355
962	Jn 18	Jn 18 Belstead Road - Luther Road to Luther Road	Jul-15	329	193	282
963	Jn 18	Jn 18 Belstead Road - Luther Road to Belstead Road S	Jul-15	256	348	643
964	Jn 19	Jn 19 Belstead Road - Ancaster Road to Belstead Road N	Jul-15	693	362	392
965	Jn 19	Jn 19 Belstead Road - Ancaster Road to Oak Hill Lane	Jul-15	4	5	8
966	Jn 19	Jn 19 Belstead Road - Ancaster Road to Belstead Road S	Jul-15	259	344	631
967	Jn 19	Jn 19 Belstead Road - Ancaster Road to Ancaster Road	Jul-15	5	6	5
968	Jn 20	Jn 20 Birkfield Drive - Stone Lodge Lane to Birkfield Drive N	Jul-15	285	170	208
969	Jn 20	Jn 20 Birkfield Drive - Stone Lodge Lane to Stone Lodge Lane E	Jul-15	219	147	249
970	Jn 20	Jn 20 Birkfield Drive - Stone Lodge Lane to Birkfield Drive S	Jul-15	111	132	231
971	Jn 20	Jn 20 Birkfield Drive - Stone Lodge Lane to Stone Lodge Lane W	Jul-15	147	80	129
972	Jn 21	Jn 21 Princes Street - Burrell Road to Princes Street	Jul-15	523	245	276
973	Jn 21	Jn 21 Princes Street - Burrell Road to Burrell Road	Jul-15	442	399	576
974	Jn 21	Jn 21 Princes Street - Burrell Road to Station Yard	Jul-15	0	0	1
975	Jn 21	Jn 21 Princes Street - Burrell Road to Ranelagh Road	Jul-15	344	411	661
976	Jn 22	Jn 22 Princes Street - Civic Drive to Princes Street N	Jul-15	118	150	103

SMV ID	Ref	Site Location	Date	AM	IP	PM
977	Jn 22	Jn 22 Princes Street - Civic Drive to Franciscan Way	Jul-15	431	378	350
978	Jn 22	Jn 22 Princes Street - Civic Drive to Princes Street S	Jul-15	351	226	241
979	Jn 22	Jn 22 Princes Street - Civic Drive to Civic Drive	Jul-15	490	654	1048
980	Jn 23	Jn 23 Civic Drive - Handford Road to Civic Drive N	Jul-15	638	872	1420
981	Jn 23	Jn 23 Civic Drive - Handford Road to Car Park Entrance	Jul-15	84	56	40
982	Jn 23	Jn 23 Civic Drive - Handford Road to Civic Drive S	Jul-15	938	605	526
983	Jn 23	Jn 23 Civic Drive - Handford Road to Handford Road	Jul-15	707	386	363
984	Jn 24	Jn 24 Berner's Street - St Matthews Street to Berner's Street	Jul-15	189	295	624
985	Jn 24	Jn 24 Berner's Street - St Matthews Street to St Matthews Street NW	Jul-15	515	557	656
986	Jn 24	Jn 24 Berner's Street - St Matthews Street to Civic Drive	Jul-15	1455	765	716
987	Jn 24	Jn 24 Berner's Street - St Matthews Street to St Matthews Street SE	Jul-15	364	513	615
988	Jn 25	Jn 25 Fonnereau Road - Crown Street to Fonnereau Road	Jul-15	144	160	194
989	Jn 25	Jn 25 Fonnereau Road - Crown Street to St Margarets Street	Jul-15	556	620	752
990	Jn 25	Jn 25 Fonnereau Road - Crown Street to Northgate Street	Jul-15	0	0	0
991	Jn 25	Jn 25 Fonnereau Road - Crown Street to Crown Street	Jul-15	590	507	484
992	Jn 26	Jn 26 Grimwade Street - Fore Street to Grimwade Street	Jul-15	0	0	0
993	Jn 26	Jn 26 Grimwade Street - Fore Street to Fore Street E	Jul-15	914	908	1010
994	Jn 26	Jn 26 Grimwade Street - Fore Street to Neptune Square	Jul-15	7	3	10
995	Jn 26	Jn 26 Grimwade Street - Fore Street to Fore Street W	Jul-15	1221	1142	1203
996	Jn 27	Jn 27 Grimwade Street - Star Lane to Grimwade Street N	Jul-15	0	0	0
997	Jn 27	Jn 27 Grimwade Street - Star Lane to Grimwade Street S	Jul-15	1390	1280	1410
998	Jn 27	Jn 27 Grimwade Street - Star Lane to Star Lane	Jul-15	0	0	0
999	Jn 28	Jn 28 Waterworks Street - Star Lane to Waterworks Street	Jul-15	321	299	414
1000	Jn 28	Jn 28 Waterworks Street - Star Lane to Star Lane E	Jul-15	740	730	758
1001	Jn 28	Jn 28 Waterworks Street - Star Lane to Star Lane W	Jul-15	0	0	0
1002	Jn 29	Jn 29 Star Lane - Fore Street to Star Lane N	Jul-15	1060	1027	1165
1003	Jn 29	Jn 29 Star Lane - Fore Street to Fore Street E	Jul-15	0	0	0
1004	Jn 29	Jn 29 Star Lane - Fore Street to Star Lane S	Jul-15	0	0	0
1005	Jn 29	Jn 29 Star Lane - Fore Street to Fore Street W	Jul-15	61	76	48
1006	Jn 31	Jn 31 Slade Street - Key Street to Slade Street	Jul-15	117	140	110
1007	Jn 31	Jn 31 Slade Street - Key Street to Key Street E	Jul-15	0	0	0
1008	Jn 31	Jn 31 Slade Street - Key Street to Key Street W	Jul-15	1104	1021	1131
1009	Jn 32	Jn 32 Lower Orwell Street - Key Street to Lower Orwell Street	Jul-15	0	0	0
1010	Jn 32	Jn 32 Lower Orwell Street - Key Street to Key Street E	Jul-15	0	0	0
1011	Jn 32	Jn 32 Lower Orwell Street - Key Street to Key Street W	Jul-15	1131	1097	1245

SMV ID	Ref	Site Location	Date	AM	IP	PM
1012	Jn 33	Jn 33 Foundation Street - Star Lane to Foundation Street N	Jul-15	320	118	89
1013	Jn 33	Jn 33 Foundation Street - Star Lane to Star Lane E	Jul-15	1060	1027	1199
1014	Jn 33	Jn 33 Foundation Street - Star Lane to Foundation Street S	Jul-15	0	0	0
1015	Jn 33	Jn 33 Foundation Street - Star Lane to Star Lane W	Jul-15	0	0	0
1016	Jn 34	Jn 34 Upper Brook Street - Dogs Head Street to Upper Brook Street	Jul-15	64	80	145
1017	Jn 34	Jn 34 Upper Brook Street - Dogs Head Street to Tachet Street	Jul-15	39	53	63
1018	Jn 34	Jn 34 Upper Brook Street - Dogs Head Street to Lower Brook Street	Jul-15	30	36	49
1019	Jn 34	Jn 34 Upper Brook Street - Dogs Head Street to Dogs Head Street	Jul-15	0	0	0
1020	Jn 35	Jn 35 Warwick Road - St Helen's Street to Warwick Road	Jul-15	33	37	56
1021	Jn 35	Jn 35 Warwick Road - St Helen's Street to Spring Road	Jul-15	92	147	258
1022	Jn 35	Jn 35 Warwick Road - St Helen's Street to Grove Lane	Jul-15	199	191	314
1023	Jn 35	Jn 35 Warwick Road - St Helen's Street to St Helen's Street	Jul-15	374	500	450
1024	Jn 36	Jn 36 Bond Street - Eagle Street to Bond Street	Jul-15	295	360	527
1025	Jn 36	Jn 36 Bond Street - Eagle Street to Rope Walk	Jul-15	10	17	21
1026	Jn 36	Jn 36 Bond Street - Eagle Street to Waterworks Street	Jul-15	0	0	0
1027	Jn 36	Jn 36 Bond Street - Eagle Street to Eagle Street	Jul-15	0	0	0
1028	Jn 37	Jn 37 Grimwalde Street - Rope Walk to Grimwade Street N	Jul-15	0	0	0
1029	Jn 37	Jn 37 Grimwalde Street - Rope Walk to Rope Walk E	Jul-15	7	12	11
1030	Jn 37	Jn 37 Grimwalde Street - Rope Walk to Grimwade Street S	Jul-15	686	557	652
1031	Jn 37	Jn 37 Grimwalde Street - Rope Walk to Rope Walk W	Jul-15	32	21	17
1032	Jn 38	Jn 38 Foxhall Road - Grove Lane to Foxhall Road	Jul-15	326	315	500
1033	Jn 38	Jn 38 Foxhall Road - Grove Lane to Back Hamlet	Jul-15	156	61	63
1034	Jn 38	Jn 38 Foxhall Road - Grove Lane to Grove Lane	Jul-15	425	295	350
1035	Jn 39	Jn 39 Britannia Road - Foxhall Road to Britannia Road	Jul-15	115	58	85
1036	Jn 39	Jn 39 Britannia Road - Foxhall Road to Foxhall Road E	Jul-15	514	329	384
1037	Jn 39	Jn 39 Britannia Road - Foxhall Road to Dover Road	Jul-15	13	26	48
1038	Jn 39	Jn 39 Britannia Road - Foxhall Road to Foxhall Road W	Jul-15	345	340	436
1039	Jn 40	Jn 40 Clapgate Lane - Landseer Road to Clapgate Lane N	Jul-15	166	117	143
1040	Jn 40	Jn 40 Clapgate Lane - Landseer Road to Landseer Road E	Jul-15	392	364	439
1041	Jn 40	Jn 40 Clapgate Lane - Landseer Road to Clapgate Lane S	Jul-15	156	125	185
1042	Jn 40	Jn 40 Clapgate Lane - Landseer Road to Landseer Road W	Jul-15	521	393	433
1043	Jn 41	Jn 41 Holywells Road - Landseer Road to Holywells Road	Jul-15	508	360	344
1044	Jn 41	Jn 41 Holywells Road - Landseer Road to Cliff Lane	Jul-15	111	87	167
1045	Jn 41	Jn 41 Holywells Road - Landseer Road to Landseer Road	Jul-15	286	286	320
1046	Jn 41	Jn 41 Holywells Road - Landseer Road to Clinic Entrance	Jul-15	29	27	8

SMV ID	Ref	Site Location	Date	AM	IP	PM
1047	Jn 42	Jn 42 Levington Road - Nacton Road to Levington Road	Jul-15	48	25	33
1048	Jn 42	Jn 42 Levington Road - Nacton Road to Nacton Road E	Jul-15	280	273	363
1049	Jn 42	Jn 42 Levington Road - Nacton Road to Clapgate Lane	Jul-15	197	155	219
1050	Jn 42	Jn 42 Levington Road - Nacton Road to Nacton Road W	Jul-15	224	187	183
1051	Jn 43	Jn 43 A14 - Nacton Road to The Havens	Jul-15	902	357	345
1052	Jn 43	Jn 43 A14 - Nacton Road to A14 EB Merge J57	Jul-15	344	359	675
1053	Jn 43	Jn 43 A14 - Nacton Road to Nacton Road SE	Jul-15	784	771	1453
1054	Jn 43	Jn 43 A14 - Nacton Road to A14 EB Diverge J57	Jul-15	0	0	0
1055	Jn 43	Jn 43 A14 - Nacton Road to Nacton Road W	Jul-15	1161	939	1004
1056	Jn 44	Jn 44 A14 - Nacton Road to Nacton Road N	Jul-15	566	329	236
1057	Jn 44	Jn 44 A14 - Nacton Road to A14 WB Diverge J57	Jul-15	0	0	0
1058	Jn 44	Jn 44 A14 - Nacton Road to Nacton Road S	Jul-15	42	51	87
1059	Jn 44	Jn 44 A14 - Nacton Road to A14 WB Merge J57	Jul-15	778	734	1500
1060	Jn 45	Jn 45 Brunswick Road - Albion Hill to Brunswick Road	Jul-15	83	56	104
1061	Jn 45	Jn 45 Brunswick Road - Albion Hill to Woodbridge Road	Jul-15	526	428	511
1062	Jn 45	Jn 45 Brunswick Road - Albion Hill to St Mary's Road	Jul-15	135	39	36
1063	Jn 45	Jn 45 Brunswick Road - Albion Hill to Albion Hill	Jul-15	516	304	325
1064	Jn 46	Jn 46 Rushmere Road - Woodbridge Road to Rushmere Road	Jul-15	158	126	174
1065	Jn 46	Jn 46 Rushmere Road - Woodbridge Road to Woodbridge Road E	Jul-15	385	383	423
1066	Jn 46	Jn 46 Rushmere Road - Woodbridge Road to Cauldwell Hall Road	Jul-15	221	200	256
1067	Jn 46	Jn 46 Rushmere Road - Woodbridge Road to Woodbridge Road W	Jul-15	651	422	595
1068	Jn 47	Jn 47 A137 - A14 to A137 N	Jul-15	905	549	919
1069	Jn 47	Jn 47 A137 - A14 to A14 WB Diverge J56	Jul-15	0	0	0
1070	Jn 47	Jn 47 A137 - A14 to A137 S	Jul-15	537	394	756
1071	Jn 47	Jn 47 A137 - A14 to A14 WB Merge J56	Jul-15	435	331	549
1072	Jn 48	Jn 48 A137 - A14 to A137 N	Jul-15	985	605	1053
1073	Jn 48	Jn 48 A137 - A14 to A14 EB Merge J56	Jul-15	767	433	700
1074	Jn 48	Jn 48 A137 - A14 to A137 S	Jul-15	658	446	737
1075	Jn 48	Jn 48 A137 - A14 to A14 EB Diverge J56	Jul-15	0	0	0
1076	Jn 49	Jn 49 Wherstead Road - A137 to Wherstead Road	Jul-15	1045	573	861
1077	Jn 49	Jn 49 Wherstead Road - A137 to The Strand	Jul-15	379	353	603
1078	Jn 49	Jn 49 Wherstead Road - A137 to A137	Jul-15	985	614	1061
1079	Jn 50	Jn 50 Wherstead Road - Bostock Road to Wherstead Road N	Jul-15	1031	560	850
1080	Jn 50	Jn 50 Wherstead Road - Bostock Road to Industrial Estate	Jul-15	12	25	14
1081	Jn 50	Jn 50 Wherstead Road - Bostock Road to Wherstead Road S	Jul-15	830	574	1093

SMV ID	Ref	Site Location	Date	AM	IP	PM
1082	Jn 50	Jn 50 Wherstead Road - Bostock Road to Bostock Road	Jul-15	3	6	8
1093	Jn G1	Gyr01-1 From Woodbridge Rd (A)	Jul-15	257	200	175
1094	Jn G1	Gyr01-1 To Woodbridge Rd (A)	Jul-15	417	433	568
1095	Jn G1	Gyr01-2 From Argyle Street	Jul-15	704	705	887
1096	Jn G1	Gyr01-2 From St Helens Street E	Jul-15	674	556	568
1097	Jn G1	Gyr01-2 To St Helens Street E	Jul-15	152	241	380
1098	Jn G1	Gyr01-2 To Grimwade Street	Jul-15	729	0	670
1099	Jn G1	Gyr01-2 To St Helens Street W	Jul-15	497	566	405
1100	Jn G1	Gyr01-3 From Orchard Street	Jul-15	156	122	94
1101	Jn G1	Gyr01-4 From Bond Street	Jul-15	301	346	489
1102	Jn G1	Gyr01-5 From St Helens Street E	Jul-15	933	1453	1018
1103	Jn G1	Gyr01-5 From Upper Orwell Street	Jul-15	67	137	145
1104	Jn G1	Gyr01-5 To Upper Orwell Street	Jul-15	197	125	65
1105	Jn G1	Gyr01-5 To Old Foundry Road	Jul-15	78	79	104
1106	Jn G1	Gyr01-5 To St Helens Street W	Jul-15	725	851	994
1107	Jn G1	Gyr01-6 From St Helens Street	Jul-15	714	0	1013
1108	Jn G1	Gyr01-8 From Christchurch Street	Jul-15	48	0	21
1109	Jn G1	Gyr01-9 From Woodbridge Road W	Jul-15	1092	1124	1427
1110	Jn G2	Gyr02-1 To Star Lane	Jul-15	1452	1048	1080
1111	Jn G2	Gyr02-1 From College Street	Jul-15	1148	1083	1213
1112	Jn G2	Gyr02-1 To Rbt Bypass	Jul-15	433	0	474
1113	Jn G2	Gyr02-1 From Bridge Street	Jul-15	1351	979	1131
1114	Jn G2	Gyr02-1 To Bridge Street	Jul-15	594	558	725
1115	Jn G2	Gyr02-1 From Greyfriars Road	Jul-15	511	451	502
1116	Jn G2	Gyr02-1 To Greyfriars Road	Jul-15	531	518	567
1117	Jn G2	Gyr02-2 From Bridge Street N	Jul-15	602	0	727
1118	Jn G2	Gyr02-2 To Bridge Street N	Jul-15	1356	0	1108
1119	Jn G2	Gyr02-2 From Bridge Street S	Jul-15	1379	859	1009
1120	Jn G2	Gyr02-2 To Bridge Street S	Jul-15	444	443	692
1121	Jn G2	Gyr02-2 From Grafton Way	Jul-15	319	393	417
1122	Jn G2	Gyr02-2 To Grafton Way	Jul-15	500	391	353
1123	Jn G3	Gyr03-1 From Arm Chancery Road	Jul-15	543	656	1022
1124	Jn G3	Gyr03-2 From B	Jul-15	12	0	46
1125	Jn G3	Gyr03-2 To B	Jul-15	28	0	30
1126	Jn G3	Gyr03-3 From Commercial Road E	Jul-15	649	707	1076

SMV ID	Ref	Site Location	Date	AM	IP	PM
1127	Jn G3	Gyr03-3 From Princes St S	Jul-15	523	235	276
1128	Jn G3	Gyr03-3 To Princes St S	Jul-15	195	263	553
1129	Jn G3	Gyr03-3 To Commercial Road W	Jul-15	976	679	801
1130	Jn G3	Gyr03-4 To West End Road	Jul-15	332	364	424
1131	Jn G3	Gyr03-4 From West End Road	Jul-15	333	289	312
1132	Jn G3	Gyr03-5 To Russell Road	Jul-15	216	89	102
1133	Jn G3	Gyr03-5 From Russell Road	Jul-15	47	58	192
1134	Jn G3	Gyr03-6 From Princes St N	Jul-15	171	242	354
1135	Jn G3	Gyr03-6 To Princes St N	Jul-15	393	171	286
1136	Jn G3	Gyr03-6 To Chancery Road E	Jul-15	644	662	896
1137	Jn G3	Gyr03-6 From Chancery Road W	Jul-15	863	590	828
1138	Jn G3	Gyr03-7 From Cardinal Road	Jul-15	17	0	193
1139	Jn G3	Gyr03-7 To Cardinal Rd	Jul-15	100	0	21
1140	Jn G3	Gyr03-8 From Car Park	Jul-15	5	0	47
1141	Jn G3	Gyr03-8 To Car Park	Jul-15	11	0	89
1142	Jn G3	Gyr03-9 From Quadling St	Jul-15	2	0	3
1143	Jn G3	Gyr03-9 To Quadling St	Jul-15	3	0	14
1150	1	JTC 1_A-In	Apr-16	616	914	1107
1151	1	JTC 1_A-Out	Apr-16	975	925	1138
1152	1	JTC 1_B-In	Apr-16	829	390	366
1153	1	JTC 1_B-Out	Apr-16	320	396	633
1154	1	JTC 1_C-In	Apr-16	1081	1069	1280
1155	1	JTC 1_C-Out	Apr-16	1392	1070	1232
1156	1	JTC 1_D-In	Apr-16	726	568	1001
1157	1	JTC 1_D-Out	Apr-16	565	551	751
1158	2	JTC 2_A-In	Apr-16	925	695	881
1159	2	JTC 2_A-Out	Apr-16	885	709	1042
1160	2	JTC 2_B-In	Apr-16	946	551	716
1161	2	JTC 2_B-Out	Apr-16	563	557	975
1162	2	JTC 2_C-In	Apr-16	550	560	930
1163	2	JTC 2_C-Out	Apr-16	933	672	822
1164	2	JTC 2_D-In	Apr-16	266	375	445
1165	2	JTC 2_D-Out	Apr-16	224	226	296
1166	2	JTC 2_E-In	Apr-16	465	353	601
1167	2	JTC 2_E-Out	Apr-16	547	370	438

SMV ID	Ref	Site Location	Date	AM	IP	PM
1168	3	JTC 3_A-In	Apr-16	608	369	620
1169	3	JTC 3_A-Out	Apr-16	654	377	654
1170	3	JTC 3_B-In	Apr-16	645	260	377
1171	3	JTC 3_B-Out	Apr-16	372	261	599
1172	3	JTC 3_C-In	Apr-16	446	444	790
1173	3	JTC 3_C-Out	Apr-16	800	441	610
1174	3	JTC 3_D-In	Apr-16	497	243	389
1175	3	JTC 3_D-Out	Apr-16	424	235	465
1176	3	JTC 3_E-In	Apr-16	611	350	670
1177	3	JTC 3_E-Out	Apr-16	557	352	518
1178	4	JTC 4_A-In	Apr-16	423	438	550
1179	4	JTC 4_A-Out	Apr-16	450	403	583
1180	4	JTC 4_B-In	Apr-16	933	674	807
1181	4	JTC 4_B-Out	Apr-16	644	714	1111
1182	4	JTC 4_C-In	Apr-16	599	473	771
1183	4	JTC 4_C-Out	Apr-16	682	481	562
1184	4	JTC 4_D-In	Apr-16	541	555	688
1185	4	JTC 4_D-Out	Apr-16	720	542	560
1186	5	JTC 5_A-In	Apr-16	611	611	650
1187	5	JTC 5_A-Out	Apr-16	577	589	431
1188	5	JTC 5_B-In	Apr-16	101	148	170
1189	5	JTC 5_B-Out	Apr-16	126	153	268
1190	5	JTC 5_C-In	Apr-16	680	776	948
1191	5	JTC 5_C-Out	Apr-16	769	795	828
1192	5	JTC 5_D-In	Apr-16	604	541	527
1193	5	JTC 5_D-Out	Apr-16	524	539	768
1194	6	JTC 6_A-In	Apr-16	550	666	849
1195	6	JTC 6_A-Out	Apr-16	901	666	548
1196	6	JTC 6_B-In	Apr-16	339	280	373
1197	6	JTC 6_B-Out	Apr-16	375	272	525
1198	6	JTC 6_C-In	Apr-16	710	445	464
1199	6	JTC 6_C-Out	Apr-16	387	448	363
1200	6	JTC 6_D-In	Apr-16	607	453	539
1201	6	JTC 6_D-Out	Apr-16	543	457	789
1202	7	JTC 7_A-In	Apr-16	862	527	602

SMV ID	Ref	Site Location	Date	AM	IP	PM
1203	7	JTC 7_A-Out	Apr-16	641	555	897
1204	7	JTC 7_B-In	Apr-16	792	678	1557
1205	7	JTC 7_B-Out	Apr-16	1231	681	821
1206	7	JTC 7_C-In	Apr-16	1617	1073	1492
1207	7	JTC 7_C-Out	Apr-16	1399	1042	1933
1208	8	JTC 8_A-In	Apr-16	65	87	199
1209	8	JTC 8_A-Out	Apr-16	212	83	70
1210	8	JTC 8_B-In	Apr-16	331	281	397
1211	8	JTC 8_B-Out	Apr-16	320	262	422
1212	8	JTC 8_C-In	Apr-16	158	186	418
1213	8	JTC 8_C-Out	Apr-16	312	179	101
1214	8	JTC 8_D-In	Apr-16	189	204	345
1215	8	JTC 8_D-Out	Apr-16	222	204	275
1216	8	JTC 8_E-In	Apr-16	582	255	220
1217	8	JTC 8_E-Out	Apr-16	259	284	711
1218	9	JTC 9_A-In	Apr-16	1718	1123	1716
1219	9	JTC 9_A-Out	Apr-16	1713	1131	1900
1220	9	JTC 9_B-In	Apr-16	71	21	24
1221	9	JTC 9_B-Out	Apr-16	19	19	54
1222	9	JTC 9_C-In	Apr-16	589	414	699
1223	9	JTC 9_C-Out	Apr-16	582	433	577
1224	9	JTC 9_D-In	Apr-16	619	675	631
1225	9	JTC 9_D-Out	Apr-16	628	413	771
1226	9	JTC 9_E-In	Apr-16	1257	707	1585
1227	9	JTC 9_E-Out	Apr-16	1312	945	1353
1228	10	JTC 10_A-In	Apr-16	1194	628	1135
1229	10	JTC 10_A-Out	Apr-16	986	546	1038
1230	10	JTC 10_B-In	Apr-16	676	337	815
1231	10	JTC 10_B-Out	Apr-16	905	386	785
1232	10	JTC 10_C-In	Apr-16	583	325	591
1233	10	JTC 10_C-Out	Apr-16	586	328	655
1234	10	JTC 10_D-In	Apr-16	562	317	556
1235	10	JTC 10_D-Out	Apr-16	538	347	619
1236	11	JTC 11_A-In	Apr-16	1170	1041	1384
1237	11	JTC 11_A-Out	Apr-16	1348	996	1544

SMV ID	Ref	Site Location	Date	AM	IP	PM
1238	11	JTC 11_B-In	Apr-16	1185	862	1379
1239	11	JTC 11_B-Out	Apr-16	1362	961	1340
1240	11	JTC 11_C-In	Apr-16	1985	1458	1889
1241	11	JTC 11_C-Out	Apr-16	1992	1481	2304
1242	11	JTC 11_D-In	Apr-16	1339	829	1492
1243	11	JTC 11_D-Out	Apr-16	977	752	956
1244	12	JTC 12_A-In	Apr-16	245	185	410
1245	12	JTC 12_A-Out	Apr-16	291	194	355
1246	12	JTC 12_B-In	Apr-16	363	204	290
1247	12	JTC 12_B-Out	Apr-16	502	210	388
1248	12	JTC 12_C-In	Apr-16	627	468	748
1249	12	JTC 12_C-Out	Apr-16	726	436	704
1250	12	JTC 12_D-In	Apr-16	503	202	334
1251	12	JTC 12_D-Out	Apr-16	219	218	335
1252	13	JTC 13_A-In	Apr-16	304	141	268
1253	13	JTC 13_A-Out	Apr-16	243	155	286
1254	13	JTC 13_B-In	Apr-16	802	426	655
1255	13	JTC 13_B-Out	Apr-16	693	379	711
1256	13	JTC 13_C-In	Apr-16	713	479	664
1257	13	JTC 13_C-Out	Apr-16	775	540	827
1258	13	JTC 13_D-In	Apr-16	93	79	164
1259	13	JTC 13_D-Out	Apr-16	205	73	120
1260	13	JTC 13_E-In	Apr-16	751	507	908
1261	13	JTC 13_E-Out	Apr-16	747	486	715
1262	14	JTC 14_A-In	Apr-16	981	654	794
1263	14	JTC 14_B-In	Apr-16	1185	1014	1458
1264	14	JTC 14_B-Out	Apr-16	1166	865	838
1265	14	JTC 14_C-In	Apr-16	216	385	362
1266	14	JTC 14_C-Out	Apr-16	508	486	667
1267	14	JTC 14_D-Out	Apr-16	457	343	582
1268	14	JTC 14_E-In	Apr-16	503	292	432
1269	14	JTC 14_E-Out	Apr-16	754	651	959
1270	15	JTC 15_A-In	Apr-16	871	671	924
1271	15	JTC 15_A-Out	Apr-16	848	753	1220
1272	15	JTC 15_B-In	Apr-16	0	0	0

SMV ID	Ref	Site Location	Date	AM	IP	PM
1273	15	JTC 15_B-Out	Apr-16	455	344	730
1274	15	JTC 15_C-In	Apr-16	757	341	463
1275	15	JTC 15_C-Out	Apr-16	0	0	0
1276	15	JTC 15_D-In	Apr-16	682	634	1134
1277	15	JTC 15_D-Out	Apr-16	751	575	740
1278	15	JTC 15_E-In	Apr-16	0	0	0
1279	15	JTC 15_E-Out	Apr-16	643	334	490
1280	15	JTC 15_F-In	Apr-16	387	360	659
1281	15	JTC 15_F-Out	Apr-16	0	0	0
1282	16	JTC 16_A-In	Apr-16	736	779	785
1283	16	JTC 16_A-Out	Apr-16	824	766	885
1284	16	JTC 16_B-In	Apr-16	615	541	690
1285	16	JTC 16_B-Out	Apr-16	492	488	758
1286	16	JTC 16_C-In	Apr-16	574	456	540
1287	16	JTC 16_C-Out	Apr-16	460	457	582
1288	16	JTC 16_D-In	Apr-16	482	514	673
1289	16	JTC 16_D-Out	Apr-16	574	532	434
1290	16	JTC 16_E-In	Apr-16	0	0	0
1291	16	JTC 16_E-Out	Apr-16	57	48	29
1292	17	JTC 17_A-In	Apr-16	609	264	421
1293	17	JTC 17_A-Out	Apr-16	502	268	521
1294	17	JTC 17_B-In	Apr-16	429	335	736
1295	17	JTC 17_B-Out	Apr-16	769	311	545
1296	17	JTC 17_C-In	Apr-16	958	498	903
1297	17	JTC 17_C-Out	Apr-16	742	488	968
1298	17	JTC 17_D-In	Apr-16	188	47	63
1299	17	JTC 17_D-Out	Apr-16	432	240	510
1300	17	JTC 17_E-In	Apr-16	261	164	421
1301	17	JTC 17_E-Out	Apr-16	0	0	0
1302	18	JTC 18_A-In	Apr-16	508	278	426
1303	18	JTC 18_A-Out	Apr-16	237	246	549
1304	18	JTC 18_B-In	Apr-16	643	375	559
1305	18	JTC 18_B-Out	Apr-16	568	398	854
1306	18	JTC 18_C-In	Apr-16	147	110	323
1307	18	JTC 18_C-Out	Apr-16	294	118	208

SMV ID	Ref	Site Location	Date	AM	IP	PM
1308	18	JTC 18_D-In	Apr-16	278	208	531
1309	18	JTC 18_D-Out	Apr-16	477	209	228
1310	19	JTC 19_A-In	Apr-16	439	388	485
1311	19	JTC 19_A-Out	Apr-16	551	498	594
1312	19	JTC 19_B-In	Apr-16	243	182	344
1313	19	JTC 19_B-Out	Apr-16	211	139	136
1314	19	JTC 19_C-In	Apr-16	745	569	737
1315	19	JTC 19_C-Out	Apr-16	738	674	810
1316	19	JTC 19_D-In	Apr-16	412	438	351
1317	19	JTC 19_D-Out	Apr-16	339	266	377
1318	20	JTC 20_A-In	Apr-16	554	540	547
1319	20	JTC 20_B-In	Apr-16	487	337	384
1320	20	JTC 20_B-Out	Apr-16	385	480	664
1321	20	JTC 20_C-In	Apr-16	308	516	657
1322	20	JTC 20_C-Out	Apr-16	514	461	359
1323	20	JTC 20_D-Out	Apr-16	450	452	565
1324	21	JTC 21_A-In	Apr-16	651	610	1342
1325	21	JTC 21_A-Out	Apr-16	999	295	494
1326	21	JTC 21_B-In	Apr-16	475	265	184
1327	21	JTC 21_B-Out	Apr-16	155	179	477
1328	21	JTC 21_C-In	Apr-16	87	53	63
1329	21	JTC 21_C-Out	Apr-16	30	35	24
1330	21	JTC 21_D-In	Apr-16	1520	693	647
1331	21	JTC 21_D-Out	Apr-16	499	327	869
1332	21	JTC 21_E-In	Apr-16	3	1	11
1333	21	JTC 21_E-Out	Apr-16	1053	785	383
1334	22	JTC 22_A-In	Apr-16	494	522	615
1335	22	JTC 22_A-Out	Apr-16	632	494	505
1336	22	JTC 22_B-In	Apr-16	677	351	373
1337	22	JTC 22_B-Out	Apr-16	347	342	558
1338	22	JTC 22_C-In	Apr-16	569	557	715
1339	22	JTC 22_C-Out	Apr-16	761	594	640
1340	23	JTC 23_A-In	Apr-16	349	269	313
1341	23	JTC 23_A-Out	Apr-16	355	289	411
1342	23	JTC 23_B-In	Apr-16	419	448	769

SMV ID	Ref	Site Location	Date	AM	IP	PM
1343	23	JTC 23_B-Out	Apr-16	571	438	458
1344	23	JTC 23_C-In	Apr-16	308	306	394
1345	23	JTC 23_C-Out	Apr-16	407	364	427
1346	23	JTC 23_D-In	Apr-16	533	386	360
1347	23	JTC 23_D-Out	Apr-16	276	318	540
1348	24	JTC 24_A-In	Apr-16	144	104	229
1349	24	JTC 24_A-Out	Apr-16	196	99	116
1350	24	JTC 24_B-In	Apr-16	418	205	338
1351	24	JTC 24_B-Out	Apr-16	328	211	357
1352	24	JTC 24_C-In	Apr-16	304	131	170
1353	24	JTC 24_C-Out	Apr-16	155	138	279
1354	24	JTC 24_D-In	Apr-16	359	289	438
1355	24	JTC 24_D-Out	Apr-16	546	282	423
1356	25	JTC 25_A-In	Apr-16	485	473	1115
1357	25	JTC 25_A-Out	Apr-16	905	449	548
1358	25	JTC 25_B-In	Apr-16	532	280	292
1359	25	JTC 25_B-Out	Apr-16	256	301	681
1360	25	JTC 25_C-In	Apr-16	475	277	408
1361	25	JTC 25_C-Out	Apr-16	331	281	586
1362	26	JTC 26_A-In	Apr-16	534	248	285
1363	26	JTC 26_A-Out	Apr-16	232	265	681
1364	26	JTC 26_B-In	Apr-16	166	153	421
1365	26	JTC 26_B-Out	Apr-16	321	146	176
1366	26	JTC 26_C-In	Apr-16	146	172	328
1367	26	JTC 26_C-Out	Apr-16	293	163	177
1368	27	JTC 27_A-In	Apr-16	1079	649	875
1369	27	JTC 27_A-Out	Apr-16	885	676	1128
1370	27	JTC 27_B-In	Apr-16	661	545	905
1371	27	JTC 27_B-Out	Apr-16	1016	589	824
1372	27	JTC 27_C-In	Apr-16	366	189	356
1373	27	JTC 27_C-Out	Apr-16	574	343	558
1374	27	JTC 27_D-In	Apr-16	369	226	374
1375	27	JTC 27_D-Out	Apr-16	0	0	0
1376	28	JTC 28_A-In	Apr-16	200	110	124
1377	28	JTC 28_A-Out	Apr-16	237	163	339

SMV ID	Ref	Site Location	Date	AM	IP	PM
1378	28	JTC 28_B-In	Apr-16	1575	1504	1617
1379	28	JTC 28_B-Out	Apr-16	2172	1485	2326
1380	28	JTC 28_C-In	Apr-16	171	123	103
1381	28	JTC 28_C-Out	Apr-16	77	82	79
1382	28	JTC 28_D-In	Apr-16	2209	1538	2541
1383	28	JTC 28_D-Out	Apr-16	1669	1545	1641
1384	29	JTC 29_A-In	Apr-16	2445	1567	2502
1385	29	JTC 29_A-Out	Apr-16	2117	1669	2526
1386	29	JTC 29_B-In	Apr-16	23	36	40
1387	29	JTC 29_B-Out	Apr-16	333	124	221
1388	29	JTC 29_C-In	Apr-16	2117	1669	2526
1389	29	JTC 29_C-Out	Apr-16	2135	1479	2321
1390	30	JTC 30_A-In	Apr-16	387	284	402
1391	30	JTC 30_A-Out	Apr-16	354	358	510
1392	30	JTC 30_B-In	Apr-16	1324	847	883
1393	30	JTC 30_B-Out	Apr-16	856	854	1496
1394	30	JTC 30_C-In	Apr-16	174	118	178
1395	30	JTC 30_C-Out	Apr-16	130	113	142
1396	30	JTC 30_D-In	Apr-16	1250	1245	2180
1397	30	JTC 30_D-Out	Apr-16	1856	1221	1394
1398	30	JTC 30_E-In	Apr-16	629	407	586
1399	30	JTC 30_E-Out	Apr-16	568	354	687
1400	31	JTC 31_A-In	Apr-16	1922	1264	1459
1401	31	JTC 31_A-Out	Apr-16	1253	1256	2222
1402	31	JTC 31_B-In	Apr-16	137	89	118
1403	31	JTC 31_B-Out	Apr-16	222	126	194
1404	31	JTC 31_C-In	Apr-16	1253	1256	2222
1405	31	JTC 31_C-Out	Apr-16	1837	1227	1383
1406	32	JTC 32_A-In	Apr-16	271	153	358
1407	32	JTC 32_A-Out	Apr-16	200	131	270
1408	32	JTC 32_B-In	Apr-16	164	124	202
1409	32	JTC 32_B-Out	Apr-16	192	139	218
1410	32	JTC 32_C-In	Apr-16	392	187	279
1411	32	JTC 32_C-Out	Apr-16	218	172	429
1412	32	JTC 32_D-In	Apr-16	114	101	159

SMV ID	Ref	Site Location	Date	AM	IP	PM
1413	32	JTC 32_D-Out	Apr-16	100	90	136
1414	32	JTC 32_E-In	Apr-16	0	0	0
1415	32	JTC 32_E-Out	Apr-16	340	125	203
1416	32	JTC 32_F-In	Apr-16	152	131	317
1417	32	JTC 32_F-Out	Apr-16	43	39	59
1418	33	JTC 33_A-In	Apr-16	292	269	331
1419	33	JTC 33_A-Out	Apr-16	449	283	351
1420	33	JTC 33_B-In	Apr-16	587	528	682
1421	33	JTC 33_B-Out	Apr-16	585	500	523
1422	33	JTC 33_C-In	Apr-16	515	440	540
1423	33	JTC 33_C-Out	Apr-16	591	439	537
1424	33	JTC 33_D-In	Apr-16	615	440	475
1425	33	JTC 33_D-Out	Apr-16	384	455	617
1426	34	JTC 34_A-In	Apr-16	639	742	948
1427	34	JTC 34_A-Out	Apr-16	926	642	691
1428	34	JTC 34_B-In	Apr-16	569	389	472
1429	34	JTC 34_B-Out	Apr-16	516	566	707
1430	34	JTC 34_C-In	Apr-16	710	371	426
1431	34	JTC 34_C-Out	Apr-16	361	347	636
1432	34	JTC 34_D-In	Apr-16	418	489	635
1433	34	JTC 34_D-Out	Apr-16	533	435	447
1434	1	JTC 1_A-In	Jul-15	394	354	358
1435	1	JTC 1_A-Out	Jul-15	370	329	529
1436	1	JTC 1_B-In	Jul-15	65	84	120
1437	1	JTC 1_B-Out	Jul-15	66	86	134
1438	1	JTC 1_C-In	Jul-15	578	452	567
1439	1	JTC 1_C-Out	Jul-15	514	508	608
1440	1	JTC 1_D-In	Jul-15	327	575	616
1441	1	JTC 1_D-Out	Jul-15	474	511	329
1442	1	JTC 1_E-In	Jul-15	792	767	724
1443	1	JTC 1_E-Out	Jul-15	732	798	785
1444	2	JTC 2_A-In	Jul-15	394	518	845
1445	2	JTC 2_A-Out	Jul-15	817	520	535
1446	2	JTC 2_B-In	Jul-15	301	236	320
1447	2	JTC 2_B-Out	Jul-15	338	234	316

SMV ID	Ref	Site Location	Date	AM	IP	PM
1448	2	JTC 2_C-In	Jul-15	727	793	789
1449	2	JTC 2_C-Out	Jul-15	783	765	723
1450	2	JTC 2_D-In	Jul-15	413	179	250
1451	2	JTC 2_D-Out	Jul-15	131	188	417
1452	2	JTC 2_E-In	Jul-15	580	431	553
1453	2	JTC 2_E-Out	Jul-15	413	444	663
1454	2	JTC 2_F-In	Jul-15	710	659	704
1455	2	JTC 2_F-Out	Jul-15	643	666	807
1456	3	JTC 3_A-In	Jul-15	285	274	538
1457	3	JTC 3_A-Out	Jul-15	497	314	338
1458	3	JTC 3_B-In	Jul-15	226	257	311
1459	3	JTC 3_B-Out	Jul-15	321	226	294
1460	3	JTC 3_C-In	Jul-15	609	425	474
1461	3	JTC 3_C-Out	Jul-15	442	432	699
1462	3	JTC 3_D-In	Jul-15	253	137	192
1463	3	JTC 3_D-Out	Jul-15	113	121	184
1464	4	JTC 4_A-In	Jul-15	889	801	1499
1465	4	JTC 4_A-Out	Jul-15	1241	811	969
1466	4	JTC 4_B-In	Jul-15	802	584	714
1467	4	JTC 4_B-Out	Jul-15	673	608	1018
1468	4	JTC 4_C-In	Jul-15	448	240	261
1469	4	JTC 4_C-Out	Jul-15	225	206	487
1470	5	JTC 5_A-In	Jul-15	627	541	768
1471	5	JTC 5_A-Out	Jul-15	617	493	658
1472	5	JTC 5_B-In	Jul-15	208	376	498
1473	5	JTC 5_B-Out	Jul-15	296	382	443
1474	5	JTC 5_C-In	Jul-15	684	569	744
1475	5	JTC 5_C-Out	Jul-15	702	585	832
1476	5	JTC 5_D-In	Jul-15	226	181	186
1477	5	JTC 5_D-Out	Jul-15	130	207	263
1478	6	JTC 6_A-In	Jul-15	146	122	97
1479	6	JTC 6_A-Out	Jul-15	146	119	154
1480	6	JTC 6_B-In	Jul-15	657	609	876
1481	6	JTC 6_B-Out	Jul-15	774	623	663
1482	6	JTC 6_C-In	Jul-15	667	539	601

SMV ID	Ref	Site Location	Date	AM	IP	PM
1483	6	JTC 6_C-Out	Jul-15	550	528	757
1484	7	JTC 7_A-In	Jul-15	475	390	546
1485	7	JTC 7_A-Out	Jul-15	381	437	507
1486	7	JTC 7_B-In	Jul-15	287	208	236
1487	7	JTC 7_B-Out	Jul-15	271	209	298
1488	7	JTC 7_C-In	Jul-15	349	418	492
1489	7	JTC 7_C-Out	Jul-15	414	341	408
1490	7	JTC 7_D-In	Jul-15	141	103	118
1491	7	JTC 7_D-Out	Jul-15	186	131	179
1492	8	JTC 8_A-In	Jul-15	567	785	1281
1493	8	JTC 8_A-Out	Jul-15	1152	772	734
1494	8	JTC 8_B-In	Jul-15	12	19	21
1495	8	JTC 8_B-Out	Jul-15	25	15	10
1496	8	JTC 8_C-In	Jul-15	896	541	473
1497	8	JTC 8_C-Out	Jul-15	375	547	934
1498	8	JTC 8_D-In	Jul-15	423	320	413
1499	8	JTC 8_D-Out	Jul-15	346	332	510
1500	9	JTC 9_A-In	Jul-15	679	610	1031
1501	9	JTC 9_A-Out	Jul-15	813	586	719
1502	9	JTC 9_B-In	Jul-15	182	151	122
1503	9	JTC 9_B-Out	Jul-15	200	141	157
1504	9	JTC 9_C-In	Jul-15	599	488	632
1505	9	JTC 9_C-Out	Jul-15	625	532	751
1506	9	JTC 9_D-In	Jul-15	339	226	230
1507	9	JTC 9_D-Out	Jul-15	198	217	378
1508	10	JTC 10_A-In	Jul-15	41	15	40
1509	10	JTC 10_A-Out	Jul-15	7	8	32
1510	11	JTC 11_A-In	Apr-15	326	0	577
1511	11	JTC 11_A-Out	Apr-15	791	0	621
1512	11	JTC 11_B-In	Apr-15	563	0	1054
1513	11	JTC 11_B-Out	Apr-15	782	0	432
1514	11	JTC 11_C-In	Apr-15	1551	0	1023
1515	11	JTC 11_C-Out	Apr-15	868	0	1599
1516	12	JTC 12_A-In	Apr-15	867	0	1591
1517	12	JTC 12_A-Out	Apr-15	1550	0	1155

SMV ID	Ref	Site Location	Date	AM	IP	PM
1518	12	JTC 12_B-In	Apr-15	1560	0	1132
1519	12	JTC 12_B-Out	Apr-15	839	0	1601
1520	12	JTC 12_C-In	Apr-15	36	0	70
1521	12	JTC 12_C-Out	Apr-15	74	0	37
1522	13	JTC 13_A-In	Apr-15	840	0	1606
1523	13	JTC 13_A-Out	Apr-15	1582	0	968
1524	13	JTC 13_B-In	Apr-15	215	0	182
1525	13	JTC 13_C-In	Apr-15	1386	0	796
1526	13	JTC 13_C-Out	Apr-15	474	0	1047
1527	14	JTC 14_A-In	Apr-15	147	0	362
1528	14	JTC 14_A-Out	Apr-15	194	0	318
1529	14	JTC 14_B-In	Apr-15	463	0	1051
1530	14	JTC 14_B-Out	Apr-15	1401	0	827
1531	14	JTC 14_C-In	Apr-15	380	0	386
1532	14	JTC 14_C-Out	Apr-15	81	0	74
1533	14	JTC 14_D-In	Apr-15	12	0	48
1534	14	JTC 14_D-Out	Apr-15	34	0	25
1535	14	JTC 14_E-In	Apr-15	1247	0	686
1536	14	JTC 14_E-Out	Apr-15	539	0	1289
1537	15	JTC 15_A-In	Apr-15	145	0	310
1538	15	JTC 15_A-Out	Apr-15	539	0	328
1539	15	JTC 15_B-In	Apr-15	800	0	641
1540	15	JTC 15_B-Out	Apr-15	303	0	498
1541	15	JTC 15_C-In	Apr-15	240	0	295
1542	15	JTC 15_C-Out	Apr-15	342	0	420
1543	16	JTC 16_A-In	Apr-15	289	0	342
1544	16	JTC 16_A-Out	Apr-15	446	0	422
1545	16	JTC 16_B-In	Apr-15	73	0	159
1546	16	JTC 16_B-Out	Apr-15	304	0	203
1547	16	JTC 16_C-In	Apr-15	526	0	318
1548	16	JTC 16_C-Out	Apr-15	131	0	241
1549	16	JTC 16_D-In	Apr-15	187	0	214
1550	16	JTC 16_D-Out	Apr-15	194	0	167
1551	17	JTC 17_A-In	Apr-15	554	0	959
1552	17	JTC 17_A-Out	Apr-15	761	0	457

SMV ID	Ref	Site Location	Date	AM	IP	PM
1553	17	JTC 17_B-In	Apr-15	20	0	70
1554	17	JTC 17_B-Out	Apr-15	43	0	12
1555	17	JTC 17_C-In	Apr-15	777	0	433
1556	17	JTC 17_C-Out	Apr-15	547	0	993
1557	18	JTC 18_A-In	Apr-15	379	0	918
1558	18	JTC 18_A-Out	Apr-15	949	0	478
1559	18	JTC 18_B-In	Apr-15	404	0	416
1560	18	JTC 18_B-Out	Apr-15	325	0	412
1561	18	JTC 18_C-In	Apr-15	893	0	497
1562	18	JTC 18_C-Out	Apr-15	425	0	816
1563	18	JTC 18_D-In	Apr-15	313	0	304
1564	18	JTC 18_D-Out	Apr-15	289	0	430
1565	19	JTC 19_A-In	Apr-15	895	0	1158
1566	19	JTC 19_A-Out	Apr-15	1094	0	1150
1567	19	JTC 19_B-In	Apr-15	420	0	381
1568	19	JTC 19_B-Out	Apr-15	265	0	300
1569	19	JTC 19_C-In	Apr-15	760	0	887
1570	19	JTC 19_C-Out	Apr-15	717	0	976
1571	20	JTC 20_A-In	Apr-15	547	0	606
1572	20	JTC 20_A-Out	Apr-15	576	0	545
1573	20	JTC 20_B-In	Apr-15	468	0	453
1574	20	JTC 20_B-Out	Apr-15	629	0	594
1575	20	JTC 20_C-In	Apr-15	1072	0	1074
1576	20	JTC 20_C-Out	Apr-15	882	0	993
1577	21	JTC 21_A-In	Apr-15	214	0	175
1578	21	JTC 21_A-Out	Apr-15	234	0	262
1579	21	JTC 21_B-In	Apr-15	232	0	341
1580	21	JTC 21_B-Out	Apr-15	547	0	331
1581	21	JTC 21_C-In	Apr-15	324	0	621
1582	21	JTC 21_C-Out	Apr-15	426	0	423
1583	21	JTC 21_D-In	Apr-15	870	0	689
1584	21	JTC 21_D-Out	Apr-15	539	0	699
1585	21	JTC 21_E-In	Apr-15	453	0	396
1586	21	JTC 21_E-Out	Apr-15	348	0	507
1587	22	JTC 22_A-In	Apr-15	598	0	637

SMV ID	Ref	Site Location	Date	AM	IP	PM
1588	22	JTC 22_A-Out	Apr-15	566	0	671
1589	22	JTC 22_B-In	Apr-15	220	0	502
1590	22	JTC 22_B-Out	Apr-15	280	0	104
1591	22	JTC 22_C-In	Apr-15	728	0	544
1592	22	JTC 22_C-Out	Apr-15	629	0	932
1593	22	JTC 22_D-Out	Apr-15	116	0	61
1594	23	JTC 23_A-In	Apr-15	579	0	551
1595	23	JTC 23_A-Out	Apr-15	520	0	698
1596	23	JTC 23_B-In	Apr-15	24	0	86
1597	23	JTC 23_B-Out	Apr-15	254	0	202
1598	23	JTC 23_C-In	Apr-15	482	0	634
1599	23	JTC 23_C-Out	Apr-15	591	0	617
1600	23	JTC 23_D-Out	Apr-15	64	0	28
1601	23	JTC 23_E-In	Apr-15	705	0	683
1602	23	JTC 23_E-Out	Apr-15	361	0	410
1603	24	JTC 24_A-In	Apr-15	660	0	429
1604	24	JTC 24_A-Out	Apr-15	360	0	580
1605	24	JTC 24_B-In	Apr-15	355	0	594
1606	24	JTC 24_B-Out	Apr-15	714	0	638
1607	24	JTC 24_C-In	Apr-15	425	0	422
1608	24	JTC 24_C-Out	Apr-15	366	0	227
1609	25	JTC 25_A-In	Apr-15	688	0	934
1610	25	JTC 25_A-Out	Apr-15	747	0	830
1611	25	JTC 25_B-In	Apr-15	375	0	408
1612	25	JTC 25_B-Out	Apr-15	344	0	517
1613	25	JTC 25_C-In	Apr-15	422	0	476
1614	25	JTC 25_C-Out	Apr-15	394	0	472
1757	9	JTC 9_E-In	Jul-15	108	75	74
1758	9	JTC 9_E-Out	Jul-15	71	72	84
1759	Jn 58	A14 / A12 Junc. - A12 Entrance	Oct-16	1792	1223	1587
1760	Jn 58	A14 / A12 Junc. - A12 Exit	Oct-16	1852	1256	1931
1761	Jn 58	A14 / A12 Junc. - Unknown Road Ent.	Oct-16	49	22	18
1762	Jn 58	A14 / A12 Junc. - Unknown Road Exit	Oct-16	21	22	62
1763	Jn 58	A14 / A12 Junc. - A14 WB Ent.	Oct-16	566	449	631
1764	Jn 58	A14 / A12 Junc. - A14 EB Exit	Oct-16	588	381	571

SMV ID	Ref	Site Location	Date	AM	IP	PM
1765	Jn 58	A14 / A12 Junc. - A1156 Entrance	Oct-16	556	427	522
1766	Jn 58	A14 / A12 Junc. - A1156 Exit	Oct-16	722	458	653
1767	Jn 58	A14 / A12 Junc. - A14 EB Ent.	Oct-16	1409	891	1532
1768	Jn 58	A14 / A12 Junc. - A14 WB Exit	Oct-16	1189	894	1073
1769	1	A1117 Bridge Road	Jul-16	1007	947	1055
1770	1	A1117 Bridge Road	Jul-16	921	964	1092
1771	3	Denmark Road / Peto Way - Barnards Way	Jul-16	123	73	53
1772	3	Denmark Road / Peto Way - Barnards Way	Jul-16	80	79	123
1773	3	Denmark Road / Peto Way - N Quay Retail Park	Jul-16	185	356	312
1774	3	Denmark Road / Peto Way - N Quay Retail Park	Jul-16	100	356	323
1775	3	Denmark Road / Peto Way - Denmark Road E	Jul-16	278	307	359
1776	3	Denmark Road / Peto Way - Denmark Road E	Jul-16	374	418	508
1777	3	Denmark Road / Peto Way - Lidl Access	Jul-16	71	93	104
1778	3	Denmark Road / Peto Way - Lidl Access	Jul-16	52	94	59
1779	3	Denmark Road / Peto Way - Peto Way W	Jul-16	345	532	588
1780	3	Denmark Road / Peto Way - Peto Way W	Jul-16	396	413	403
1781	4	Denmark Road / Rotterdam Road - Rotterdam Road	Jul-16	133	148	156
1782	4	Denmark Road / Rotterdam Road - Rotterdam Road	Jul-16	149	158	182
1783	4	Denmark Road / Rotterdam Road - Denmark Road E	Jul-16	242	234	293
1784	4	Denmark Road / Rotterdam Road - Denmark Road E	Jul-16	316	337	411
1785	4	Denmark Road / Rotterdam Road - Denmark Road W	Jul-16	370	419	504
1786	4	Denmark Road / Rotterdam Road - Denmark Road W	Jul-16	280	306	360
1787	5	A12 Pier Terrace	Jul-16	1412	911	986
1788	5	A12 Pier Terrace	Jul-16	811	1049	1436
1789	6	A12 Horn Hill / A12 Tom Crips Way / Waveney Drive - Access Road	Jul-16	1	4	2
1790	6	A12 Horn Hill / A12 Tom Crips Way / Waveney Drive - Access Road	Jul-16	4	4	1
1791	6	A12 Horn Hill / A12 Tom Crips Way / Waveney Drive - Horn Hill	Jul-16	1164	749	704
1792	6	A12 Horn Hill / A12 Tom Crips Way / Waveney Drive - Horn Hill	Jul-16	540	829	1197
1793	6	A12 Horn Hill / A12 Tom Crips Way / Waveney Drive - Maconochie Way	Jul-16	24	20	8
1794	6	A12 Horn Hill / A12 Tom Crips Way / Waveney Drive - Maconochie Way	Jul-16	8	23	23
1795	6	A12 Horn Hill / A12 Tom Crips Way / Waveney Drive - Tom Crisp Way	Jul-16	350	584	909
1796	6	A12 Horn Hill / A12 Tom Crips Way / Waveney Drive - Tom Crisp Way	Jul-16	886	527	471
1797	6	A12 Horn Hill / A12 Tom Crips Way / Waveney Drive - Waveney Drive	Jul-16	348	359	458
1798	6	A12 Horn Hill / A12 Tom Crips Way / Waveney Drive - Waveney Drive	Jul-16	449	333	389
1799	7	B1531 Waveney Drive / Waveney Crescent - Waveney Drive E	Jul-16	446	247	214

SMV ID	Ref	Site Location	Date	AM	IP	PM
1800	7	B1531 Waveney Drive / Waveney Crescent - Waveney Drive E	Jul-16	151	294	419
1801	7	B1531 Waveney Drive / Waveney Crescent - Waveney Crescent	Jul-16	10	14	27
1802	7	B1531 Waveney Drive / Waveney Crescent - Waveney Crescent	Jul-16	29	10	23
1803	7	B1531 Waveney Drive / Waveney Crescent - Waveney Drive W	Jul-16	149	287	402
1804	7	B1531 Waveney Drive / Waveney Crescent - Waveney Drive W	Jul-16	425	244	201
1805		A1214 / Bell Ln - A1214 East	Dec-16	697	765	1010
1806		A1214 / Bell Ln - A1214 East	Dec-16	901	766	817
1807		A1214 / Bell Ln - Bell Ln	Dec-16	257	231	292
1808		A1214 / Bell Ln - Bell Ln	Dec-16	300	216	200
1809		A1214 / Bell Ln - A1214 West	Dec-16	600	638	821
1810		A1214 / Bell Ln - A1214 West	Dec-16	762	653	720
1816	12	JTC 12_B-Out	Apr-16	643	294	390
1820	11	JTC 11_B-Out	Apr-16	1472	1015	1250
1824	10	JTC 10_B-Out	Apr-16	931	371	673
1828	Jn 43	Jn 43 A14 - Nacton Road to A14 EB Merge J57	Apr-16	200	323	588
1831	Jn 58	A14 / A12 Junc. - A14 WB Ent.	Apr-16	533	434	666
1837	Jn 44	Jn 44 A14 - Nacton Road to A14 WB Merge J57	Apr-16	740	478	1325
1839	10	JTC 10_D-Out	Apr-16	516	297	444
1843	11	JTC 11_D-Out	Apr-16	1106	791	1048
1848	14	JTC 14_E-Out	Apr-16	793	592	880
1923	1A	A11 junctions slip roads to / from Solopark Trading Estate, Pampisford	Oct-16	1096	0	1106
1924	1B	A11 junctions slip roads to / from Solopark Trading Estate, Pampisford	Oct-16	1160	0	1260
1925	1C	A11 junctions slip roads to / from Solopark Trading Estate, Pampisford	Oct-16	43	0	212
1926	1A	A11 junctions slip roads to / from Solopark Trading Estate, Pampisford	Oct-16	737	0	1395
1927	1B	A11 junctions slip roads to / from Solopark Trading Estate, Pampisford	Oct-16	0	0	0
1928	1C	A11 junctions slip roads to / from Solopark Trading Estate, Pampisford	Oct-16	466	0	77
1929	2A	A1307 junction Pampisford Road, Hildersham	Oct-16	588	0	934
1930	2B	A1307 junction Pampisford Road, Hildersham	Oct-16	1081	0	661
1931	2C	A1307 junction Pampisford Road, Hildersham	Oct-16	24	0	75
1932	2A	A1307 junction Pampisford Road, Hildersham	Oct-16	834	0	594
1933	2B	A1307 junction Pampisford Road, Hildersham	Oct-16	609	0	1008
1934	2C	A1307 junction Pampisford Road, Hildersham	Oct-16	250	0	69
1935	3A	A1307 Junction Haverhill Road, Horseheath	Oct-16	41	0	125
1936	3B	A1307 Junction Haverhill Road, Horseheath	Oct-16	1014	0	553
1937	3C	A1307 Junction Haverhill Road, Horseheath	Oct-16	450	0	1100

SMV ID	Ref	Site Location	Date	AM	IP	PM
1938	3A	A1307 Junction Haverhill Road, Horseheath	Oct-16	96	0	46
1939	3B	A1307 Junction Haverhill Road, Horseheath	Oct-16	489	0	1224
1940	3C	A1307 Junction Haverhill Road, Horseheath	Oct-16	875	0	508
1941	4A	A1307 Junction B1052, Linton	Oct-16	240	0	114
1942	4B	A1307 Junction B1052, Linton	Oct-16	987	0	649
1943	4C	A1307 Junction B1052, Linton	Oct-16	541	0	1034
1944	4A	A1307 Junction B1052, Linton	Oct-16	77	0	132
1945	4B	A1307 Junction B1052, Linton	Oct-16	560	0	1027
1946	4C	A1307 Junction B1052, Linton	Oct-16	1082	0	638
1947	5A	A1307 junction Horseheath Road, Linton	Oct-16	70	0	213
1948	5B	A1307 junction Horseheath Road, Linton	Oct-16	917	0	509
1949	5C	A1307 junction Horseheath Road, Linton	Oct-16	425	0	911
1950	5A	A1307 junction Horseheath Road, Linton	Oct-16	209	0	67
1951	5B	A1307 junction Horseheath Road, Linton	Oct-16	446	0	1087
1952	5C	A1307 junction Horseheath Road, Linton	Oct-16	715	0	479
1953	6A	B1052 High Street Junction Balsham Road, Linton	Oct-16	208	0	457
1954	6B	B1052 High Street Junction Balsham Road, Linton	Oct-16	371	0	106
1955	6A	B1052 High Street Junction Balsham Road, Linton	Oct-16	39	0	13
1956	6B	B1052 High Street Junction Balsham Road, Linton	Oct-16	82	0	319
1957	6C	B1052 High Street Junction Balsham Road, Linton	Oct-16	455	0	232
1958	7A	Cambridge Road junction minor Road, Balsham parish	Oct-16	376	0	123
1959	7B	Cambridge Road junction minor Road, Balsham parish	Oct-16	151	0	74
1960	7C	Cambridge Road junction minor Road, Balsham parish	Oct-16	97	0	485
1961	7A	Cambridge Road junction minor Road, Balsham parish	Oct-16	119	0	431
1962	7B	Cambridge Road junction minor Road, Balsham parish	Oct-16	70	0	140
1963	7C	Cambridge Road junction minor Road, Balsham parish	Oct-16	433	0	112
1964	8A	B1052 Junctions High Street and Six Mile Bottom Road, West Wratting	Oct-16	27	0	88
1965	8B	B1052 Junctions High Street and Six Mile Bottom Road, West Wratting	Oct-16	186	0	68
1966	8C	B1052 Junctions High Street and Six Mile Bottom Road, West Wratting	Oct-16	53	0	127
1967	8A	B1052 Junctions High Street and Six Mile Bottom Road, West Wratting	Oct-16	77	0	28
1968	8B	B1052 Junctions High Street and Six Mile Bottom Road, West Wratting	Oct-16	65	0	199
1969	8C	B1052 Junctions High Street and Six Mile Bottom Road, West Wratting	Oct-16	122	0	55
1970	9A	Roundabout East of A11 Great Abington	Oct-16	298	0	80
1971	9B	Roundabout East of A11 Great Abington	Oct-16	72	0	829
1972	9C	Roundabout East of A11 Great Abington	Oct-16	288	0	96

SMV ID	Ref	Site Location	Date	AM	IP	PM
1973	9D	Roundabout East of A11 Great Abington	Oct-16	28	0	24
1974	9E	Roundabout East of A11 Great Abington	Oct-16	797	0	122
1975	9A	Roundabout East of A11 Great Abington	Oct-16	81	0	249
1976	9B	Roundabout East of A11 Great Abington	Oct-16	993	0	65
1977	9C	Roundabout East of A11 Great Abington	Oct-16	40	0	102
1978	9D	Roundabout East of A11 Great Abington	Oct-16	150	0	178
1979	9E	Roundabout East of A11 Great Abington	Oct-16	218	0	557
1980	10A	A1307 junction with Road to Four Wentways roundabout, Little Abington	Oct-16	869	0	1314
1981	10B	A1307 junction with Road to Four Wentways roundabout, Little Abington	Oct-16	1059	0	656
1982	10C	A1307 junction with Road to Four Wentways roundabout, Little Abington	Oct-16	121	0	284
1983	10A	A1307 junction with Road to Four Wentways roundabout, Little Abington	Oct-16	1067	0	838
1984	10B	A1307 junction with Road to Four Wentways roundabout, Little Abington	Oct-16	642	0	1300
1985	10C	A1307 junction with Road to Four Wentways roundabout, Little Abington	Oct-16	340	0	117
1986	11A	A11 Junction A1307 grade separated roundabout (all movements) Balsham	Oct-16	659	0	224
1987	11B	A11 Junction A1307 grade separated roundabout (all movements) Balsham	Oct-16	1015	0	850
1988	11C	A11 Junction A1307 grade separated roundabout (all movements) Balsham	Oct-16	786	0	946
1989	11d	A11 Junction A1307 grade separated roundabout (all movements) Balsham	Oct-16	629	0	1279
1990	11A	A11 Junction A1307 grade separated roundabout (all movements) Balsham	Oct-16	282	0	576
1991	11B	A11 Junction A1307 grade separated roundabout (all movements) Balsham	Oct-16	825	0	1262
1992	11C	A11 Junction A1307 grade separated roundabout (all movements) Balsham	Oct-16	710	0	736
1993	11d	A11 Junction A1307 grade separated roundabout (all movements) Balsham	Oct-16	1271	0	725
1994	12A	A11 Junction A1307 grade separated roundabout (all movements) Balsham	Oct-16	692	0	1098
1995	12B	A11 Junction A1307 grade separated roundabout (all movements) Balsham	Oct-16	2	0	2
1996	12C	A11 Junction A1307 grade separated roundabout (all movements) Balsham	Oct-16	1170	0	674
1997	12D	A11 Junction A1307 grade separated roundabout (all movements) Balsham	Oct-16	33	0	341
1998	12A	A11 Junction A1307 grade separated roundabout (all movements) Balsham	Oct-16	904	0	791
1999	12B	A11 Junction A1307 grade separated roundabout (all movements) Balsham	Oct-16	2	0	1

SMV ID	Ref	Site Location	Date	AM	IP	PM
2000	12C	A11 Junction A1307 grade separated roundabout (all movements) Balsham	Oct-16	600	0	1310
2001	12D	A11 Junction A1307 grade separated roundabout (all movements) Balsham	Oct-16	391	0	13
2002	13A	A1307 roundabout Babraham	Oct-16	437	0	572
2003	13B	A1307 roundabout Babraham	Oct-16	823	0	758
2004	13C	A1307 roundabout Babraham	Oct-16	239	0	186
2005	13D	A1307 roundabout Babraham	Oct-16	669	0	846
2006	13A	A1307 roundabout Babraham	Oct-16	603	0	341
2007	13B	A1307 roundabout Babraham	Oct-16	812	0	1145
2008	13C	A1307 roundabout Babraham	Oct-16	206	0	285
2009	13D	A1307 roundabout Babraham	Oct-16	548	0	592
2010	14A	A1307 Babraham Road Junction Cherry Hinton road roundabout (all movements)	Oct-16	73	0	76
2011	14B	A1307 Babraham Road Junction Cherry Hinton road roundabout (all movements)	Oct-16	1120	0	1107
2012	14C	A1307 Babraham Road Junction Cherry Hinton road roundabout (all movements)	Oct-16	1	0	0
2013	14D	A1307 Babraham Road Junction Cherry Hinton road roundabout (all movements)	Oct-16	1169	0	1221
2014	14A	A1307 Babraham Road Junction Cherry Hinton road roundabout (all movements)	Oct-16	87	0	47
2015	14B	A1307 Babraham Road Junction Cherry Hinton road roundabout (all movements)	Oct-16	1160	0	1261
2016	14C	A1307 Babraham Road Junction Cherry Hinton road roundabout (all movements)	Oct-16	0	0	0
2017	14D	A1307 Babraham Road Junction Cherry Hinton road roundabout (all movements)	Oct-16	1116	0	1096
2018	15A	A505 Junction Home Farm Barns, Pampisford	Oct-16	50	0	90
2019	15B	A505 Junction Home Farm Barns, Pampisford	Oct-16	105	0	28
2020	15C	A505 Junction Home Farm Barns, Pampisford	Oct-16	15	0	23
2021	15A	A505 Junction Home Farm Barns, Pampisford	Oct-16	94	0	34
2022	15B	A505 Junction Home Farm Barns, Pampisford	Oct-16	40	0	90
2023	15C	A505 Junction Home Farm Barns, Pampisford	Oct-16	36	0	17
2106	2A	A12/A1094	May-17	648	579	721
2107	2A	A12/A1094	May-17	776	580	649
2108	2B	A12/A1094	May-17	649	451	427
2109	2B	A12/A1094	May-17	457	439	595
2110	2C	A12/A1094	May-17	276	264	344

SMV ID	Ref	Site Location	Date	AM	IP	PM
2111	2C	A12/A1094	May-17	340	274	248
2112	3A	A12/Botany Lane/Tinker Brook	May-17	4	2	0
2113	3A	A12/Botany Lane/Tinker Brook	May-17	2	2	3
2114	3B	A12/Botany Lane/Tinker Brook	May-17	776	553	631
2115	3B	A12/Botany Lane/Tinker Brook	May-17	601	547	709
2116	3C	A12/Botany Lane/Tinker Brook	May-17	7	4	6
2117	3C	A12/Botany Lane/Tinker Brook	May-17	14	7	2
2118	3D	A12/Botany Lane/Tinker Brook	May-17	601	546	705
2119	3D	A12/Botany Lane/Tinker Brook	May-17	771	549	628
2297	1A	Bridge Street/Gratfon Way	May-17	1496	1185	1355
2298	1A	Bridge Street/Gratfon Way	May-17	1442	1090	1220
2299	1B	Bridge Street/Gratfon Way	May-17	65	44	67
2300	1B	Bridge Street/Gratfon Way	May-17	21	27	52
2301	1C	Bridge Street/Gratfon Way	May-17	1310	890	1076
2302	1C	Bridge Street/Gratfon Way	May-17	947	870	1202
2303	1D	Bridge Street/Gratfon Way	May-17	367	380	424
2304	1D	Bridge Street/Gratfon Way	May-17	615	424	365
2305	1E	Bridge Street/Gratfon Way	May-17	578	481	521
2306	1E	Bridge Street/Gratfon Way	May-17	703	536	574
2307	2A	Burrell Road/Bridge Street	May-17	966	871	1188
2308	2A	Burrell Road/Bridge Street	May-17	1308	893	1094
2309	2B	Burrell Road/Bridge Street	May-17	47	40	37
2310	2B	Burrell Road/Bridge Street	May-17	0	0	0
2311	2C	Burrell Road/Bridge Street	May-17	841	526	678
2312	2C	Burrell Road/Bridge Street	May-17	570	469	655
2313	2D	Burrell Road/Bridge Street	May-17	536	432	495
2314	2D	Burrell Road/Bridge Street	May-17	418	427	575
2315	3A	Stoke Street/Burrell Road	May-17	246	185	221
2316	3A	Stoke Street/Burrell Road	May-17	251	267	388
2317	3B	Stoke Street/Burrell Road	May-17	534	432	495
2318	3B	Stoke Street/Burrell Road	May-17	417	429	574
2319	3C	Stoke Street/Burrell Road	May-17	293	255	290
2320	3C	Stoke Street/Burrell Road	May-17	171	170	202
2321	4A	Wherstead Road/Hawes Street	May-17	716	519	956
2322	4A	Wherstead Road/Hawes Street	May-17	909	500	732

SMV ID	Ref	Site Location	Date	AM	IP	PM
2323	4B	Wherstead Road/Hawes Street	May-17	24	17	17
2324	4B	Wherstead Road/Hawes Street	May-17	19	16	17
2325	4C	Wherstead Road/Hawes Street	May-17	63	67	98
2326	4C	Wherstead Road/Hawes Street	May-17	78	65	67
2327	4D	Wherstead Road/Hawes Street	May-17	1043	524	840
2328	4D	Wherstead Road/Hawes Street	May-17	845	543	1075
2329	4E	Wherstead Road/Hawes Street	May-17	163	60	111
2330	4E	Wherstead Road/Hawes Street	May-17	148	61	131
2331		Waveney Drive / Riverside Road / Durban Road - Riverside Rd	Jul-17	43	83	172
2332		Waveney Drive / Riverside Road / Durban Road - Riverside Rd	Jul-17	251	70	33
2333		Waveney Drive / Riverside Road / Durban Road - Waveney Dr E	Jul-17	330	292	389
2334		Waveney Drive / Riverside Road / Durban Road - Waveney Dr E	Jul-17	375	300	355
2335		Waveney Drive / Riverside Road / Durban Road - Durban Road	Jul-17	55	39	70
2336		Waveney Drive / Riverside Road / Durban Road - Durban Road	Jul-17	24	36	85
2337		Waveney Drive / Riverside Road / Durban Road - Waveney Dr W	Jul-17	369	218	180
2338		Waveney Drive / Riverside Road / Durban Road - Waveney Dr W	Jul-17	147	227	338

Appendix E.2

NEWMARKET TOWN CENTRE

MCC RESULTS

Appendix F

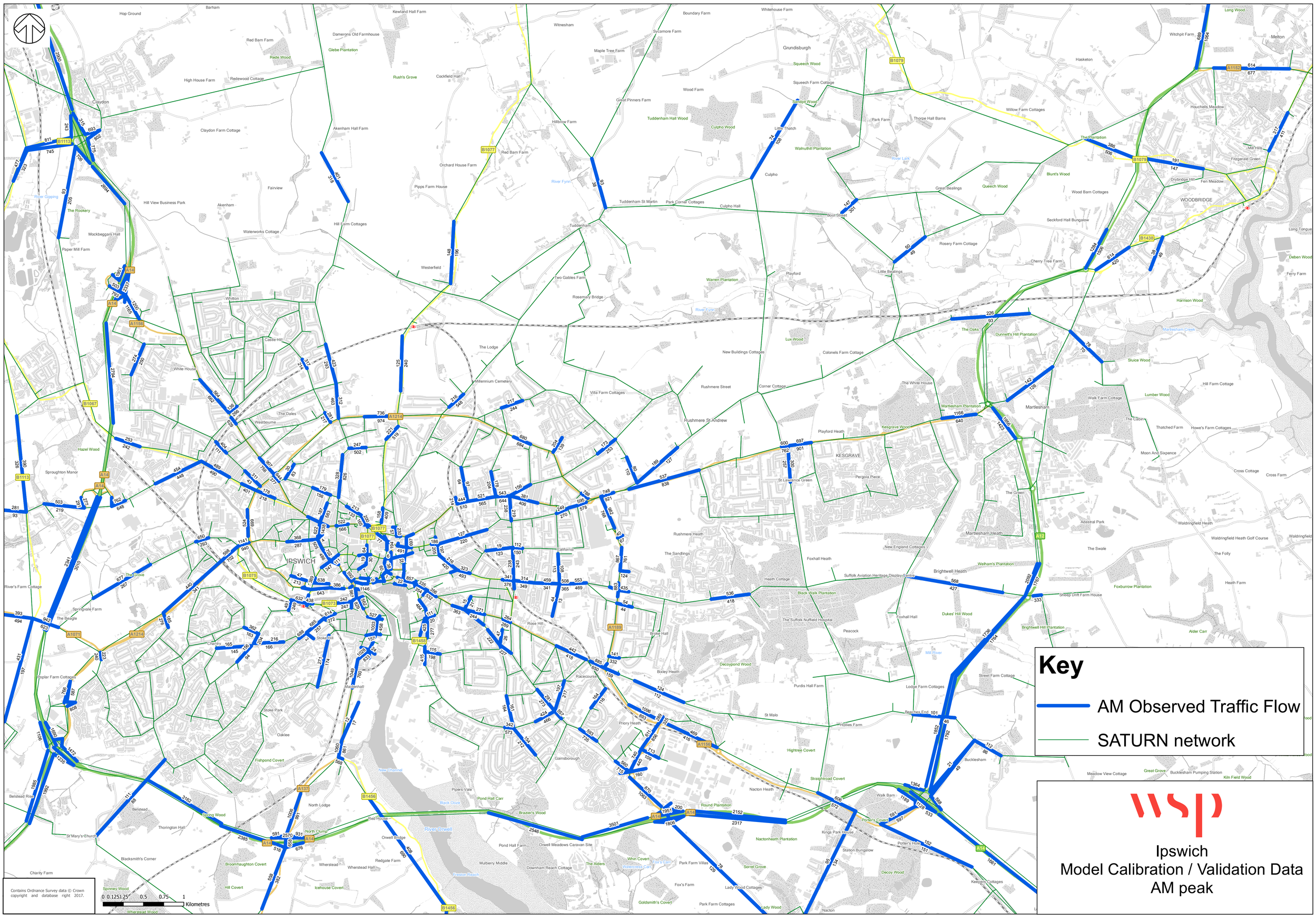
COUNT DATA


Key
AM Observed Traffic Flow
SATURN network
East Suffolk
Model Calibration / Validation Data
AM peak
HALESWORTH
SOUTHWOLD
Walberswick
Wenhaston
Holton
Reydon
Yoxford
SAXMUNDHAM
FRAMLINGHAM
Laxfield
Stradbroke
Fressingfield
Scole
Debenham
Coldfair Green
ALDEBURGH
WICKHAM MARKET
Rendlesham
Ufford
Melton
WOODBRIDGE
Grundisburgh
Orford
Sutton Common
Havergate Island
Orford Beach
Contains Ordnance Survey data © Crown copyright and database right 2017.
0 0.4 0.8 1.6 2.4 3.2 Kilometres

Drawn By: ukmdj002

File: Q:\WSP_UK\WSP_D\Basing\70016133 - Suffolk County Transport Model\Analysis\MapDocuments\D2 Traffic Data Collection Report\v84s Count Data\AM East Suffolk.mxd

Drawn By: ukmdj002



File: Q:\WSP_UK\WSP_D\Basing\70016133 - Suffolk County Transport Model\Analysis\MapDocuments\D2 Traffic Data Collection Report\v84s Count Data\AM Ipswich.mxd

Key

- AM Observed Traffic Flow
- SATURN network

wsp

Ipswich
Model Calibration / Validation Data
AM peak

Drawn By: ukmdj002

Key

- AM Observed Traffic Flow
- SATURN network

Lowestoft
Model Calibration / Validation Data
AM peak

0 0.075 0.15 0.3 0.45 0.6 Kilometres

File: Q:\WSP_UK\WSP_D\Basing\70016133 - Suffolk County Transport Model\Analysis\MapDocuments\D2 Traffic Data Collection Report\v84s Count Data\AM Lowestoft.mxd

Drawn By: ukmdj002

File: Q:\WSP_UK\WSP_D\Basing\70016133 - Suffolk County Transport Model\Analysis\MapDocuments\D2 Traffic Data Collection Report\v84s Count Data\AM Waveney.mxd

Key

- AM Observed Traffic Flow
- SATURN network

Rockland St Mary
B1140
Bradwell
Gorleston-on-Sea
B1370
B1113
Stoke Holy Cross
Reedham
The Island
Belton
Mulbarton
Poringland
River Chet
Thurton
Hopton on Sea
A12
Brooke
River Chet
Chedgrave
Loddon
Newton Flotman
B1332
B1136
B1074
Blundeston
Corton
B1385
Gunton
Tasburgh
Hempnall
A146
B1527
B1375
B1531
Long Stratton
Ditchingham
River Waveney
River Waveney
River Waveney
BECCLES
A144
Worlingham
B1532
Earsham
B1062
River Waveney
Pulham Market
Pulham St Mary
River Waveney
HARLESTON
River Waveney
A143
River Waveney
B1123
A144
Fressingfield
B1124
HALESWORTH
B1123
Holton
River Blyth
B1118
B1116
B1123
A145
A1098
Wenhaston
River Blyth
B1126
Reydon
SOUTHWOLD
Stradbroke
B1117
River Blyth
A144
Walberswick
B1387
B1387
B1117
Laxfield
B1126
B1127
Wrentham
A12
Kessingland
B1437

Contains Ordnance Survey data © Crown copyright and database right 2017.

0 0.375 0.75 1.5 2.25 3 Kilometres

wsp

Waveney
Model Calibration / Validation Data
AM peak

Drawn By: ukmdj002

Key

- IP Observed Traffic Flow
- SATURN network

Contains Ordnance Survey data © Crown copyright and database right 2017.

0 0.4 0.8 1.6 2.4 3.2 Kilometres

East Suffolk
Model Calibration / Validation Data
Inter peak

File: Q:\WSP_UK\WSP_D\Basing\70016133 - Suffolk County Transport Model\Analysis\MapDocuments\D2 Traffic Data Collection Report\v84s Count Data\IP East Suffolk.mxd

Drawn By: ukmdj002

Key

IP Observed Traffic Flow

SATURN network

wsp

Ipswich
Model Calibration / Validation Data
Inter peak

0 0.125 0.25 0.5 0.75 1 Kilometres

File: Q:\WSP_UK\WSP_D\Basing\70016133 - Suffolk County Transport Model\Analysis\MapDocuments\D2 Traffic Data Collection Report\v84s Count Data\AM Ipswich.mxd

Drawn By: ukmdj002

Key

IP Observed Traffic Flow

SATURN network

Lowestoft
Model Calibration / Validation Data
Inter peak

0 0.075 0.15 0.3 0.45 0.6 Kilometres

File: Q:\WSP_UK\WSP_D\Basing\70016133 - Suffolk County Transport Model\Analysis\MapDocuments\D2 Traffic Data Collection Report\v84s Count Data\IP Lowestoft.mxd

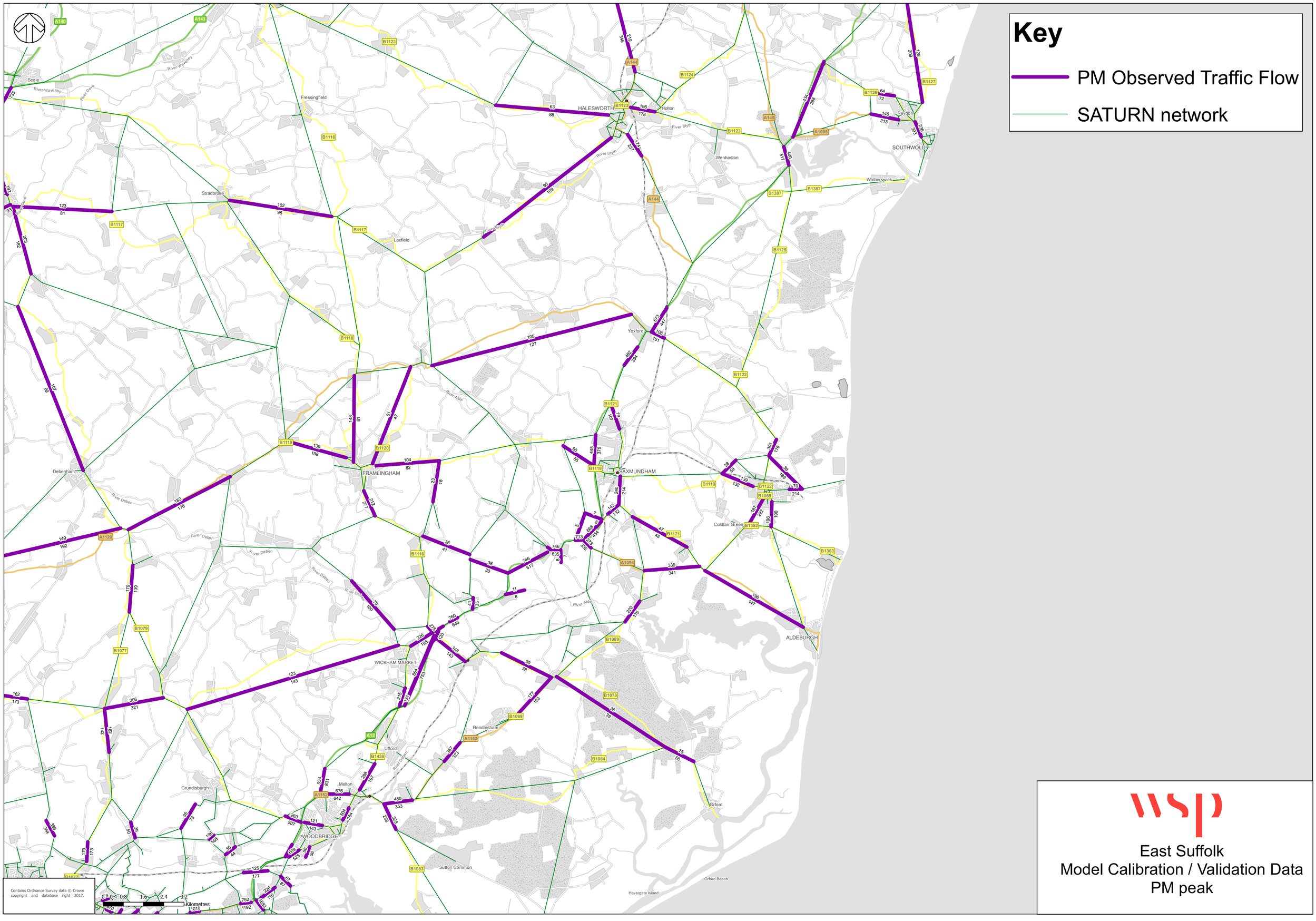

Key
IP Observed Traffic Flow
SATURN network
BECCLES
HALESWORTH
HARLESTON
SOUTHWOLD
Ditchingham
Earsham
Worlingham
Wrentham
Reydon
Holton
Wenhaston
Walberswick
Kessingland
Fressingfield
Stradbroke
Laxfield
Hempnall
Tasburgh
Long Stratton
Pulham Market
Pulham St Mary
Stoke Holy Cross
Poringland
Mulbarton
Newton Flotman
Brooke
Thurton
Chedgrave
Loddon
Reedham
The Island
Belton
Bradwell
Gorleston-on-Sea
Hopton on Sea
Corton
Blundeston
Rockland St Mary
Contains Ordnance Survey data © Crown copyright and database right 2017.
Kilometres

Waveney
Model Calibration / Validation Data
Inter peak

Drawn By: ukmdj002

File: Q:\WSP_UK\WSP_D\Basing\70016133 - Suffolk County Transport Model\Analysis\MapDocuments\D2 Traffic Data Collection Report\v84s Count Data\IP Waveney.mxd

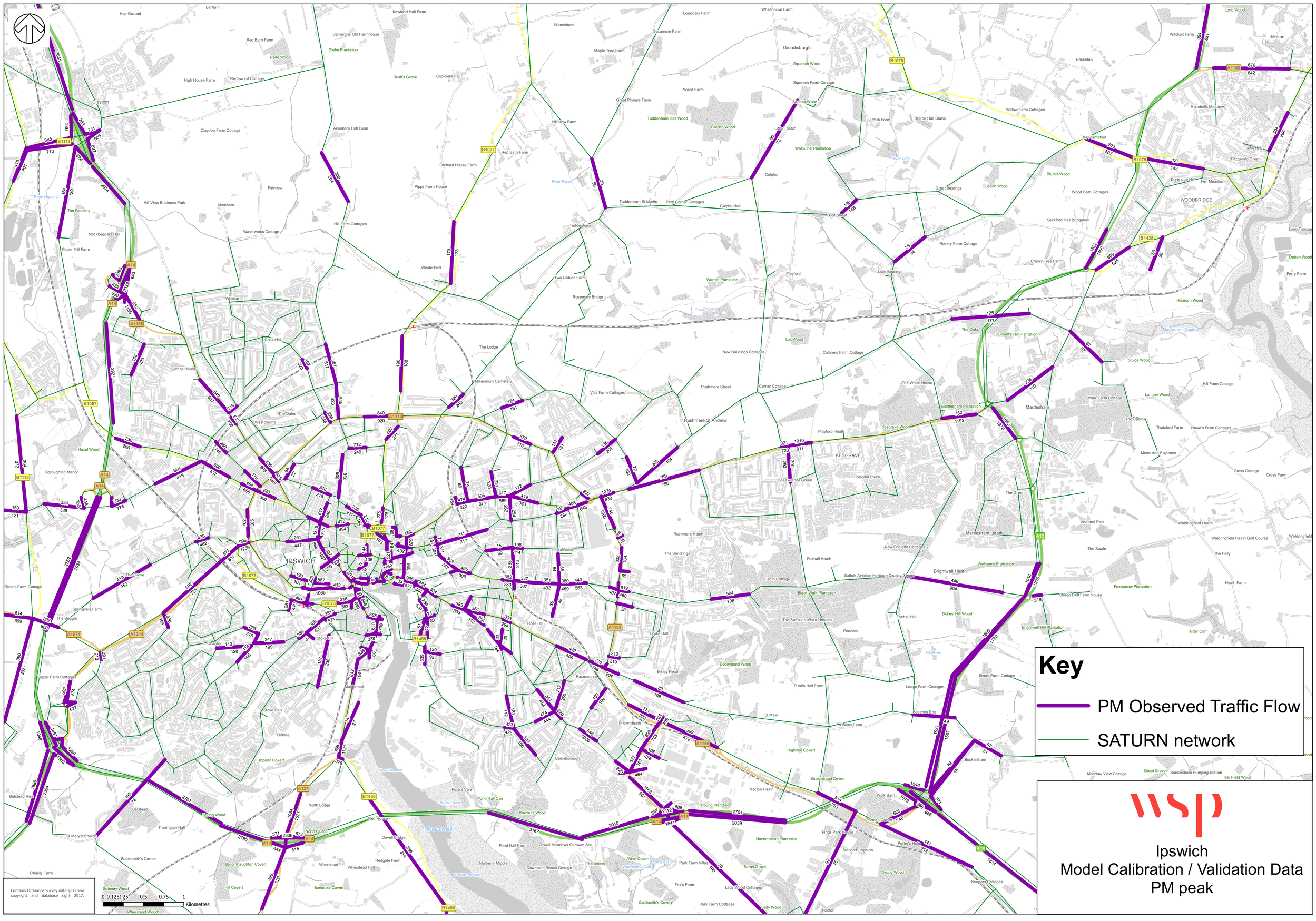
Drawn By: ukmdj002



East Suffolk
Model Calibration / Validation Data
PM peak

File: Q:\WSP_UK\WSP_D\Basing\70016133 - Suffolk County Transport Model\Analysis\MapDocuments\D2 Traffic Data Collection Report\v84s Count Data\PM East Suffolk.mxd

Drawn By: ukmdj002



Key

PM Observed Traffic Flow

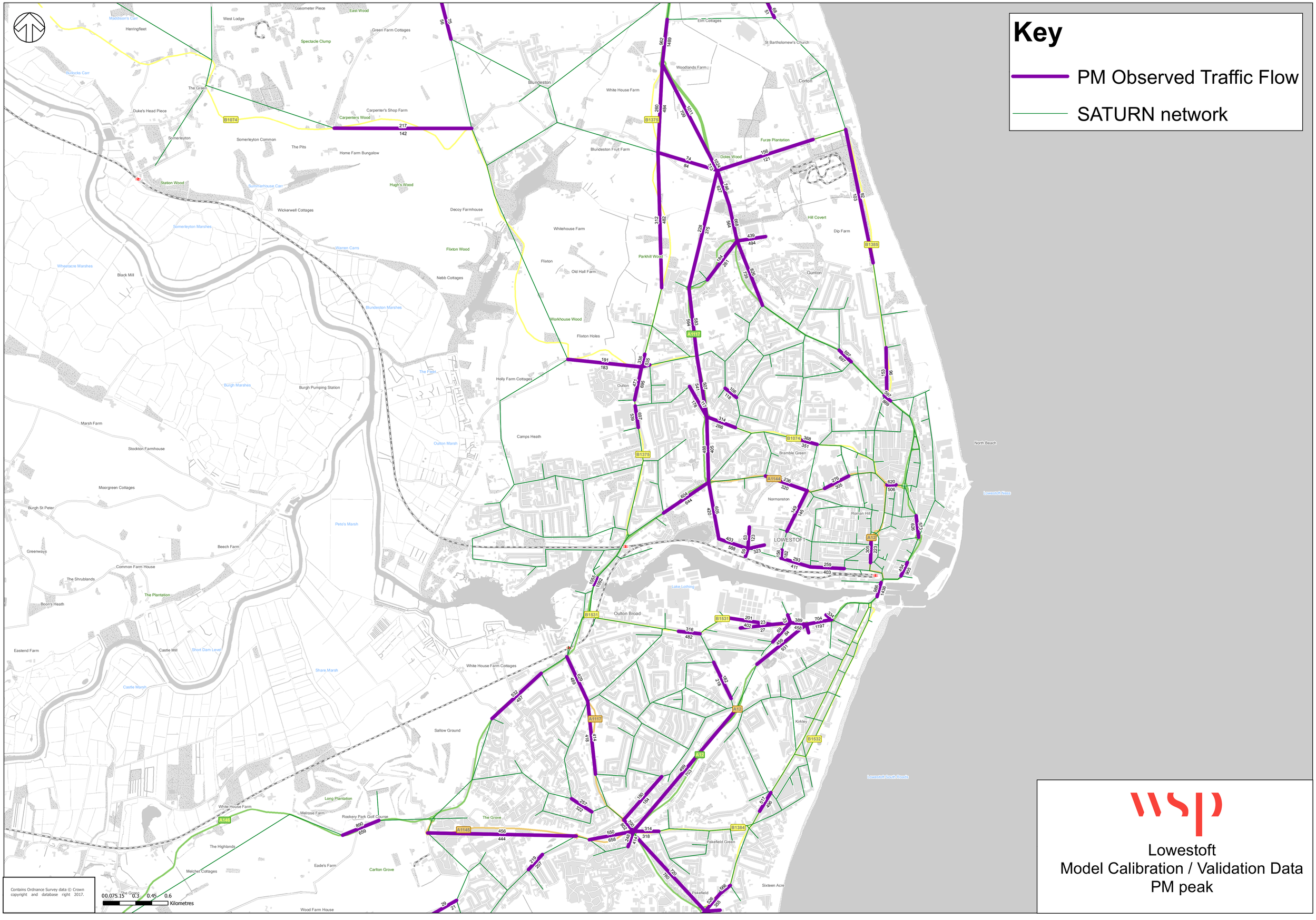
SATURN network

wsp

Ipswich
Model Calibration / Validation Data
PM peak

File: Q:\WSP_UK\WSP_D\Basing\Y00116133 - Suffolk County Transport Model\Analysis\MapDocuments\D2 Traffic Data Collection Report\v84s Count Data\PM Ipswich.mxd

Drawn By: ukmdj002



File: Q:\WSP_UK\WSP_D\Basing\70016133 - Suffolk County Transport Model\Analysis\MapDocuments\D2 Traffic Data Collection Report\v84s Count Data\PM Lowestoft.mxd

Drawn By: ukmdj002

File: Q:\WSP_UK\WSP_D\Basing\70016133 - Suffolk County Transport Model\Analysis\MapDocuments\D2 Traffic Data Collection Report\v84s Count Data\PM Waveney.mxd

Key

PM Observed Traffic Flow

SATURN network

Contains Ordnance Survey data © Crown copyright and database right 2017.

0 0.375 0.75 1.5 2.25 3 Kilometres

wsp

Waveney
Model Calibration / Validation Data
PM peak

WSP House
70 Chancery Lane
London
WC2A 1AF

wsp.com