Suffolk County Council

SUFFOLK LOCAL PLAN MODELLING

Forecasting Report - Forecasts with demand adjustments

SCC LP 9.2
OCTOBER 2020

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EXECUTIVE SUMMARY

REPORT PURPOSE

WSP have been commissioned to undertake an updated assessment of the emerging Local Plans for the following Local Planning Authorities (LPAs):

- Babergh District Council (BDC)
- Ipswich Borough Council (IBC)
- Mid Suffolk District Council (MSDC)
- East Suffolk Council (Suffolk Coastal Local Plan)[1]
- West Suffolk Council (WSC)

BDC, IBC, MSDC and Suffolk Coastal are the authorities which form the Ipswich Strategic Planning Area (ISPA). This report has been produced in advance of the Babergh and Mid Suffolk Regulation 19 Plan and relates to Model Run 9. This is part of a series of model runs which have been produced during the preparation of Local Plans across Suffolk. The Suffolk Coastal Local Plan was adopted on 23rd September 2020.

The purpose of this report is to assess the impact upon the highway network of scenarios for growth within the respective Local Plans for a forecast year of 2036 and interim year of 2026. This report represents a further assessment following the strategic modelling reported in January 2020 related to the Preferred Option for IBC and the Suffolk Coastal Local Plan, as well as development options for BDC and MSDC.

With respect to West Suffolk, developments relevant to the consideration of issues and options (Regulation 18) have been included. In relation to West Suffolk, the focus of this assessment is on the cross boundary issues between Mid Suffolk and West Suffolk, in particular the area to the east of Bury St Edmunds and within Bury St Edmunds itself. This is because further detail is required in the strategic model across the wider West Suffolk area in order to inform a full assessment of the housing and job growth which is being considered.

This report identifies junctions and links that are likely to experience significant peak hour congestion in the future. This report focuses on forecast capacity of the network, implementing a reduction in forecast car demand based on assumptions about the likelihood of achieving a modal shift away from private car travel. The details of the methodology are included within the Suffolk Local Plan Modelling Methodology Report (September 2020).

[1] The Suffolk Coastal Local Plan covers the area of the former Suffolk Coastal District Council

For the assessment of individual junctions within this report, the volume to capacity (V/C) percentage is used. V/C percentages above 100% show a traffic flow beyond its capacity. These locations show the greatest network stress and suggest delays are likely. At these locations the network may cease to function efficiently and blocking back from queuing may occur, constraining the capacity and potentially causing congestion on adjacent links and junctions. Locations at which the V/C percentage is between 85-99% are also considered likely to experience congestion and are highlighted within the analysis.

WHAT HAS BEEN DONE

The strategic modelling detailed within this report is generally consistent with the modelling which is detailed in the January 2020 ISPA modelling results report. Changes which have been implemented include the following:

- Enhancements to the network detail and calibration of the underlying 2016 base year model
- Removal of the Innocence Farm and associated highway mitigation from the employment sites modelled within Suffolk Coastal reflecting the adopted Local Plan
- Update of assumptions in Babergh and Mid Suffolk to reflect the latest Preferred Option. This includes the recently consented SnOasis employment site which is subject to a specific sensitivity test, reported as an appendix to this report
- Inclusion of specific housing and employment developments within West Suffolk, previously TEMPRO growth has been applied across model zones representing this authority

The main focus of this report is the demand adjustments which have been implemented and what this subsequently means for the locations on the highway network which show capacity issues. The demand adjustments should be considered as an approximation of the impact of the following influences on future behaviour:

- Mitigation measures which will lead to a modal shift away from car travel.
- Increased propensity for individuals to be able to work flexibly and work from home remotely
- Peak spreading; whereby individuals decide to adjust the timing of their trip to fall outside of the conventional morning peak hour of 0800-0900 and evening peak hour of 1700-1800

The Suffolk County Transport Model (SCTM) includes a strategic highway model built in SATURN which has been calibrated and validated to reflect traffic conditions for a base year of 2016. Traffic forecasts have been generated from this base year model to reflect forecast years of 2026 and 2036.

The forecast modelling detailed in this report consists of the preferred housing and job growth options for Babergh and Mid Suffolk. Development planned within the Suffolk Coastal Final Draft Local Plan[2] and Ipswich Final Draft Local Plan has also been included. Development assumptions

[2] For Suffolk Coastal, the inputs are consistent with information provided to inform the preferred options modelling which was reported on in January 2019 and which aligns with the Final Draft Local Plan (excluding Innocence Farm).

within West Suffolk and the Waveney area of East Suffolk Council have also been included. The cumulative impact of the development across all Suffolk planning authorities has been tested to determine the impact on the highway network.

Details of housing and employment sites and their locations (assigned to SCTM zones) were provided by each LPA and included within the modelling, along with existing permissions and allocations, and completions since 2016. The remaining growth within each district has been accounted for using the Alternative Planning Assumptions tool in TEMPRO; the combination of potential development sites and background growth obtained from TEMPRO ensures that growth is applied in line with the proposed overall Local Plan target for each LPA where this has been defined. The approach of using TEMPRO for residual housing growth was undertaken for Babergh, Mid Suffolk and Suffolk Coastal.

The total housing growth across West Suffolk has been constrained to TEMPRO. TEMPRO still draws a distinction between the former St Edmundsbury and Forest Heath areas of West Suffolk in relation to future housing and employment growth. The housing growth for these two formerly separate planning authorities has been combined together to inform the West Suffolk totals defined in the assessment.

All of the housing and job growth in Ipswich was assigned to specific developments as the dwelling total for these closely matched the overall Local Plan targets. In Babergh, Mid Suffolk, Suffolk Coastal and West Suffolk all the Local Plan target job growth could be related to specific developments, therefore no residual job growth was applied using TEMPRO.

WSP have previously undertaken traffic modelling to support the Waveney Local Plan. Model runs which include specific development assumptions in Suffolk Coastal also utilise the assumptions from the Preferred Option scenario for Waveney.

The development information has been processed by WSP by specifically modelling developments, allocating growth to specific model zones or adjusting planning data in TEMPRO to generate adjusted background traffic growth factors. Employment density calculations have been applied to commercial developments using the 2016 Economic Land Needs Assessment (ELNA) and reports from The Homes and Communities Agency (HCA)[3].

Developments greater than 500 dwellings / jobs have been explicitly modelled in terms of their specific site accesses and internal network being included in the model. All other developments between 10-499 dwellings / jobs have been allocated to a base year model zone and its respective loading point.

TRICS trip rates have been applied to the majority of developments based on land use type. The exception to this is developments included within background growth derived from TEMPRO. For larger developments, the specific Transport Assessment trip rates were collated and applied in place of the general TRICS trip rates.

[3] The Home and Communities Agency is now known as Homes England.

TEMPRO background growth factors have been adjusted to match the residual housing and job growth which results from the difference between the overall Local Plan targets and the specific developments modelled. LGV growth has been constrained to the 2018 Road Traffic Forecasts available from the National Transport Model (NTM). HGV growth has been derived based on trip generation from specific future B8 developments across Suffolk and is greater than the growth shown in the 2018 Road Traffic Forecasts. In accordance with DfT WebTAG guidance, fuel and income factor adjustments have further been added to the car traffic growth within the forecasts.

The forecast traffic generation detailed in this report leads to increases of 22-23% in terms of growth in traffic between 2016 and 2026, which decreases to 16% because of targeted demand adjustments. Traffic growth between 2016 and 2036 was calculated at 44-45%, reducing to 37-38% as result of the demand changes.

The results within this report focus only on roads which are part of SCC's highway network. Impacts of adjusted ISPA Local Plan growth on the Strategic Road Network (SRN), namely the A14 and A12 (between Essex and A14 J55 Copdock Interchange) is reported in a separate technical note completed in July 2019.

It should be recognised the current COVID-19 pandemic is having a considerable impact on travel behaviour both in the short-term and potentially in the longer term. Coupled with this are the impacts which the pandemic will have on future economic growth given it has resulted in the UK entering recession and significant adjustments to economic forecasts are now being presented from sources such as the Office for Budget Responsibility (OBR). Given the unprecedented and large degree of uncertainty around how these factors could impact travel behaviour and proposed Local Plan growth within Suffolk, the strategic modelling within this report has not taken account of these recent events. The modelling methodology which underpins the results presented in this report has continued to use the same approach to previous strategic modelling undertaken for Local Plans across Suffolk prior to March 2020.

WHAT THE RESULTS SHOW

Models have been generated to show future traffic growth for 2026 and 2036.This growth in traffic is a result of changing patterns of travel behaviour and predicted future growth in housing and jobs across Suffolk. The transport modelling factors in an element of growth when predicting future traffic impacts and has been adapted for the purposes of this assessment to consider the specific growth locations identified in the named local authorities. The results cannot therefore be interpreted as simply as 'Local Plan vs no Local Plan', i.e. it could not reasonably be assumed that if there were no Local Plan, traffic patterns would be the same in 2026 and 2036 as they were in 2016.

The growth assumptions for the modelling consider population growth and specific development locations, as well as car ownership and relative vehicle operating costs. This information comes from the Local Plans and the use of the Department for Transport TEMPro software

Numerous locations across the network are shown to have capacity issues, measured using the volume to capacity (V/C) percentage which compares the capacity of the network to the assigned traffic flow. This report provides a summary of the results for all four LPAs with the ISPA boundary

Previous modelling results reported in relation to Local Plan growth in Suffolk Coastal and Ipswich is detailed below

- Forecasting Report Volume 1 (August 2018) – Option modelling for Suffolk Coastal and Ipswich (August 2018) which outlines the junctions within Suffolk Coastal and Ipswich which showed capacity issues for different combinations of housing and job distributions. This also included Development Options for Babergh and Mid Suffolk

Modelling related to the preferred option for Ipswich and First Draft Local Plan for Suffolk Coastal have been published in the following document:

- Forecasting Report Volume 2 (January 2019) – Modelling of the preferred option for Ipswich and Final Draft Local Plan for Suffolk Coastal which outlines the junctions within Suffolk Coastal and Ipswich which showed capacity issues. This also included Development Options for Babergh and Mid Suffolk

Modelling taking into account a demand adjustment for 2026 and 2036 was submitted during the examination for the Suffolk Coastal Local Plan and was published in the following report:

- ISPA Forecasting Report (August 2019) – Demand adjusted 2026 and 2036 assignments, modelling the preferred option for Ipswich and Final Draft Local Plan for Suffolk Coastal. This also included Development Options for Babergh and Mid Suffolk. This report focused on congestion on the highway under control of SCC.

Modelling taking into account a demand adjustment for 2026 and 2036, focusing on the SRN and impact of potential RIS schemes on the A14 south of Ipswich was detailed in the following technical note:

- A14 RIS impact Technical Note (July 2019) – This utilised the 2026 and 2036 demand adjusted assignments, focusing in particular on potential RIS schemes on the A14 south of Ipswich

Further modelling taking into account a demand adjustment for 2026 and 2036 was submitted for the Ipswich Local Plan examination and was published in the following report:

- ISPA Forecasting Report (January 2020) – Demand adjusted 2026 and 2036 assignments, modelling the Final Draft Local Plans for Ipswich and Suffolk Coastal. This also included Development Options for Babergh and Mid Suffolk. This report focused on congestion on the highway under control of SCC.

WHAT DOES THIS MEAN

The analysis has shown that whilst many junctions may be close to or exceed capacity in 2026 and 2036; there are also many parts of the network that will operate well within their theoretical capacity. For junctions where the V/C is shown to approach or exceed operational capacity, the individual development proposals assessed within the model would, as part of their planning applications, need to consider additional measures to help mitigate any impact.

It is also necessary to remember that improvements in capacity through the removal of bottlenecks whilst desirable in one location can have knock on impacts which would be less desirable than the existing congestion. For example, as traffic is more freely able to move into the network, the problem will simply move to another location. Equally, hard engineering and infrastructure solutions are not the only solutions available. Other solutions involve the optimisation of existing infrastructure and an emphasis on sustainable transport, through for example personal travel planning. Over the lifetime of the Local Plans it is reasonable to assume that policies on sustainable transport will help to mitigate some of the increase in stress, and technological changes, such as those associated with Connected and Autonomous Vehicles, have the potential to independently improve traffic flow and conditions.

WHAT IS BEING DONE TO ADDRESS THIS

As the respective Local Plans progress within each LPA, further assessment will be undertaken to inform any mitigation scenarios. This will identify the mitigation required. The modelling detailed within this report includes a demand adjustment which represents part of the mitigation strategy required to accommodate the housing and job growth included within the ISPA, as well as approximating changes in individuals trip making behaviour.

Whilst the development quantum and matrix development process differ between scenarios, there are committed highway infrastructure schemes across Suffolk which have been included within the appraisal. Specific highway infrastructure schemes within Babergh, Ipswich, Mid Suffolk, East Suffolk and West Suffolk are detailed in Section 2.4.

WHAT HAPPENS NEXT

The ISPA demand adjustments which have been made represent a form of mitigation based on a combination of measures which can be implemented to reduce the level of car travel. The demand adjustments also represent changes in travel patterns based on the time individuals choose to travel and an increased propensity to be able to work from home / remotely. This is car travel associated with both existing travel patterns and new developments which will come forward in the future. The adjusted demand forecasts detailed within this report are an estimation of the cumulative impact of these mitigation measures on the highway network within the ISPA. SCC produced a report “Transport Mitigation Strategy for the Ipswich Strategic Planning Area” in August 2019 which detailed a range of proposals as part of a package of mitigation measures which could result in the modal shift aware from car travel.

1

GLOSSARY

1 GLOSSARY

- **Adjusted Planning Data** – TEMPro (see below) allows for the use of alternative assumptions which are different to the standard set of assumptions. This allows for specific allocated developments to be discounted from the assumptions or to adjust the overall assumptions to tie in with alternative data sources.
- **AM Peak** – the morning peak hour (08:00 – 09:00)
- **Assignment** – A Traffic Assignment Model, in this case SATURN, has been used. An assignment model requires two general inputs – a "trip matrix" and a "network" (thought of as the "demand" and "supply" inputs – provided by the user). These are input into a "route choice" model which allocates or assigns trips to "routes" through the network, as a result total flows along links in the network may be summed and the corresponding network "costs" (e.g. times) calculated.
- **BDC** – Babergh District Council
- **Committed Development** – All land with current planning permission or allocated for development in adopted development plans (particularly residential development) (Planning Portal Glossary).
- **ESC** – East Suffolk Council
- **HE** – Highways England
- **IBC** – Ipswich Borough Council
- **ISPA** – Ipswich Strategic Planning Area
- **Links** – Connect nodes together and represent the road network within the model
- **LinSig** – Industry standard software used to assess Signal-Controlled junctions
- **Local Plan** - A Local Plan is a set of documents that determine how development will be planned over time.
- **LPA** – Local Planning Authority
- **Matrix** – see Trip Matrix
- **MSDC** – Mid Suffolk District Council
- **Network** – specifies the physical structure of the roads, etc upon which trips take place and the parameters within it. In this report, parameters is being used as a generic descriptor of all of the pieces of information / options that go into the Saturn network, it is not a specific modelling term.
- **Nodes** – Nodes represent a change in speed or direction; most often they represent a junction.
- **NTEM** – National Trip End Model, Latest version 7.2. The National Trip End Model produces estimates of person travel by all modes based on 2011 Census boundaries. The model outputs trip productions (e.g. homes) and trip attractions (e.g. sites of employment) in each zone (collectively known as trip-ends), which may be separated by mode, journey purpose, household car ownership category and time period.
- **NTM** – National Transport Model provides a means of comparing the consequences of national transport policies or widely-applied local transport policies, against a range of background scenarios which consider the major factors affecting future patterns of travel. The model produces future forecasts of road traffic growth, vehicle tailpipe emissions, congestion and journey time (Department for Transport website).
- **PCU – Passenger Car Unit**, is a method used in Transport Modelling to allow for the different vehicle types within a traffic flow group to be assessed in a consistent manner. Measured to be

5.75 m. Factors used in the SCTM are 1 for a car or light goods vehicle and 2.3 for heavy goods vehicle.

- **Permitted Development** - Permission to carry out certain limited forms of development without the need to make an application to a local planning authority, as granted under the terms of the Town and Country Planning (General Permitted Development) Order (Planning Portal Glossary).
- **Person Trip Rate** – The number of people making a given trip as opposed to the number of vehicles making a trip.
- **PM Peak** – Afternoon Peak (17:00 – 18:00)
- **SATURN** – Simulation and Assignment of Traffic to Urban Road Networks is a suite of network analysis programs used to assess the impact of road-investment schemes. Current version 11.3.12U. See also assignment. Further information can be found here: https://saturnsoftware.co.uk/
- **SCC** – Suffolk County Council
- **SCDC** – Suffolk Coastal District Council (now part of East Suffolk Council)
- **SCTM** – Suffolk County Transport Model
- **TEMPro** - TEMPro is the Trip End Model Presentation Program. The National Trip End Model (NTEM) forecasts and the TEMPro software are used for transport planning purposes. The forecast includes: population, employment, households by car ownership, trip ends, and simple traffic growth factors based on data from the National Transport Model. The current version, and the version used for this work, is NTEM 7.2. Further information can be found at: https://www.gov.uk/government/collections/tempro
- **Trip Matrix** – the "Trip Matrix" Tij specifies the number of trips from zone i to zone j
- **V/C Ratio** – Volume / Capacity Ratio. The assigned model flow is the volume of traffic in PCUs per hour, with the V/C percentage calculated as the volume relative to the capacity in percentage terms.
- **WDC** – Waveney District Council (now part of East Suffolk Council)
- **WebTAG** – Web Transport Appraisal Guidance. Documentation produced by the Department for Transport (DfT) to assist in transport appraisal and modelling to ensure consistency and robustness.
- **Windfall Sites** – sites for housing that have yet to be identified, accounted for through background growth.
- **WSC** – West Suffolk Council (comprised of the former districts of Forest Heath and St Edmundsbury)
- **Zone Loading Point** – the origins and destinations of trips within a network

A further glossary of planning terms can be found here:
https://www.planningportal.co.uk/directory/4/glossary

2

INTRODUCTION

2 INTRODUCTION

2.1 BACKGROUND

2.1.1. WSP have been commissioned to undertake an assessment of the impact of Local Plan development assumptions for multiple Local Planning Authorities (LPAs) within Suffolk. This report has been produced in advance of the Babergh and Mid Suffolk Regulation 19 Plan and relates to Model Run 9. This is part of a series of model runs which have been produced during the preparation of Local Plans across Suffolk. The Suffolk Coastal Local Plan was adopted on 23rd September 2020.

2.1.2. The focus of this report is on the modelling results for all four of the LPAs within the ISPA boundary, as well as cross boundary issues between West Suffolk and Babergh & Mid Suffolk. Therefore, impacts associated the following local planning authorities will be focused on:

- Ipswich Borough
- East Suffolk (area covered by the Suffolk Coastal Local Plan)
- Babergh District
- Mid Suffolk District
- West Suffolk (focusing on Bury St Edmunds and the area to the east at the boundary with Mid Suffolk)

2.1.3. The Local Plan development has been tested in terms of the impact on the highway network for a forecast year of 2036 to ensure alignment across the ISPA authorities, however this is not the case for West Suffolk, where the forecast year for the end of the Local Plan period is 2040. An interim forecast year of 2026 has also been modelled. This has been generated as it forms a mid-point between the end of the Local Plan period (2036) for the ISPA authorities and the base year for the strategic model (2016). This interim year provides an indication of whether the capacity issues which are apparent at the end of the Local Plan period (2036) also occur in 2026 to help provide an indication of when mitigation may be required.

2.2 TRANSPORT MODEL

2.2.1. The Suffolk County Transport Model (SCTM) has been developed by WSP as a multi-purpose modelling toolkit to enable Suffolk County Council (SCC), LPAs and other parties to test a variety of transport related improvements including for example:

- 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
- Development impact assessment.

2.2.2. The assessment within this report uses the Highway Assignment Model (HAM)[4] only as the focus of the modelling is on how the highway network within Suffolk is affected by the proposed housing and job growth with the emerging Local Plans. A highway only assignment is considered proportionate and sufficiently robust to test the assumptions for each LPA.

2.2.3. The SCTM has been developed to an extent that it is able to serve as a high-level strategic assessment tool for various applications. However, no strategic model is capable of representing a whole county in fine detail, so the level of detail required for each application is reviewed prior to testing. It is often necessary to enhance a particular local area for a specific testing purpose.

2.2.4. A review of the SCTM within the five LPAs was undertaken with the need for additional network detail and zone disaggregation undertaken. This was undertaken for the 2016 base year model which underpins the forecast modelling undertaken to assess the Local Plans. The previous validation of the 2016 base year model is presented for each of the ISPA LPAs in TN1 – SCTM Base Year Validation Version 2.1 (July 2018).

2.2.5. It should be noted there is an alternative version of the SCTM which comprises considerably increased detail within West Suffolk. This relates to work undertaken around a previous appraisal of the A1307 west of Haverhill, as well as cross-boundary work within West Suffolk (focused on the former district of Forest Heath District) and East Cambridgeshire. WSP recommend if further assessments are undertaken of Local Plan development impacts in West Suffolk, that the base year and forecast year networks are updated to incorporate this enhanced detail.

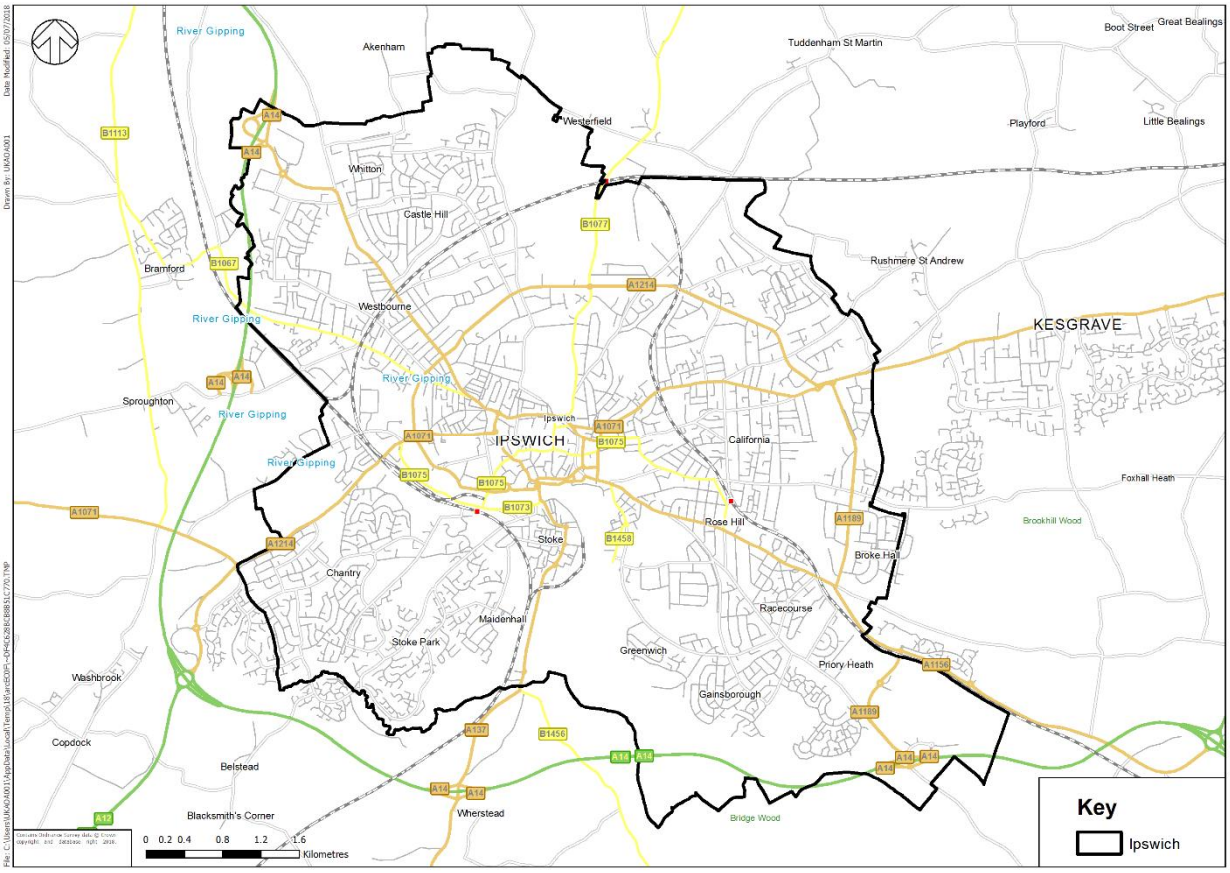
[4] The SCTM comprises a Highway Assignment Model (HAM) built in SATURN, as well as a Public Transport Assignment Model (PTAM) and Variable Demand Model (VDM) developed in VISUM.

2.3 STUDY AREA

2.3.1. The study areas in this forecasting report focus on East Suffolk (area covered by Suffolk Coastal Local Plan), Ipswich Borough, Babergh District, Mid Suffolk District and West Suffolk.

2.3.2. Figure 1 shows the borough boundary for Ipswich Borough, detailing the strategic highway network and main urban areas.

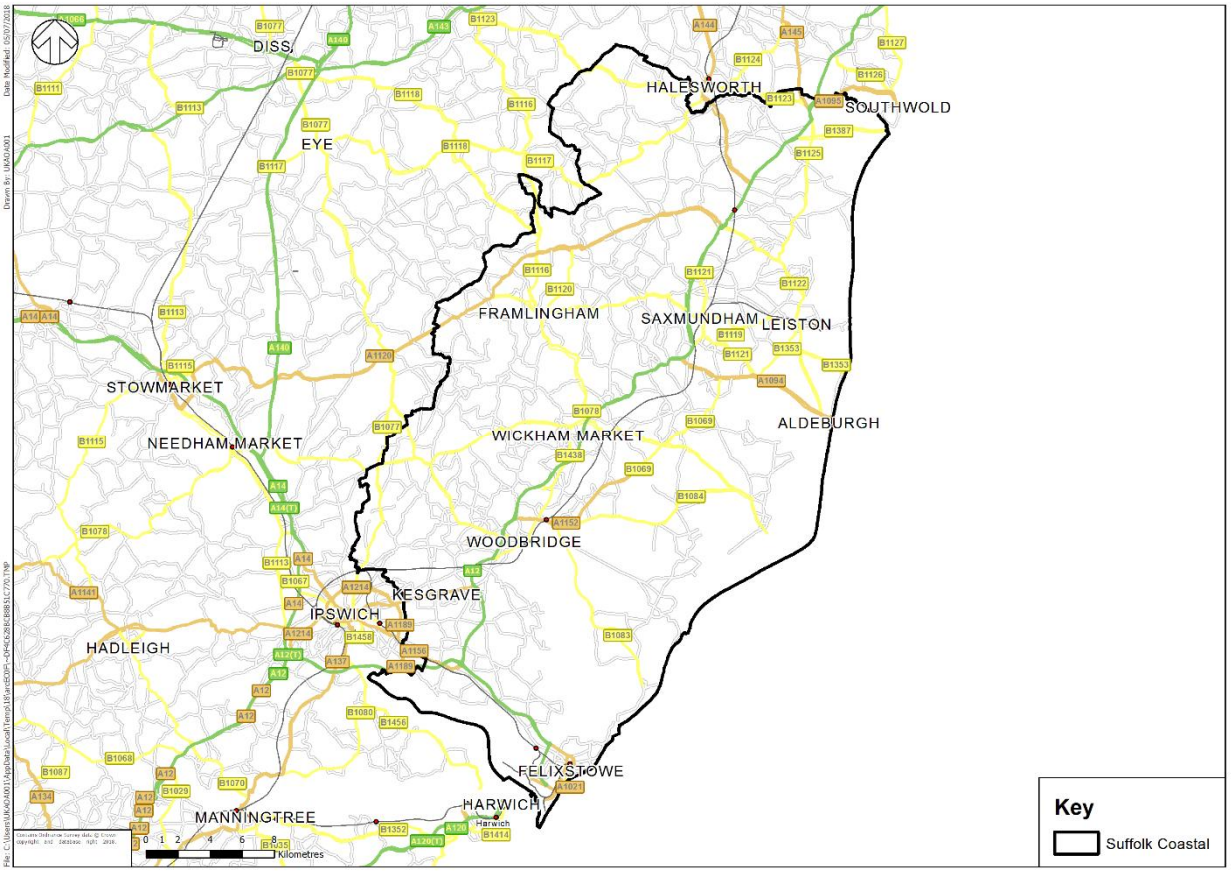
Figure 1 – Ipswich Borough boundary



2.3.3. The Ipswich Borough boundary covers the majority of the Ipswich urban area, though parts of the Ipswich urban area are included within the boundaries of Babergh, Mid Suffolk and Suffolk Coastal. Sections of the A14 are included within the Ipswich Borough boundary, including Junction 53 (Bury Road) and Junction 57 (Nacton).

2.3.4. Figure 2 shows the boundary of the area of East Suffolk covered by the Suffolk Coastal Local Plan, detailing the strategic highway network and main urban areas.

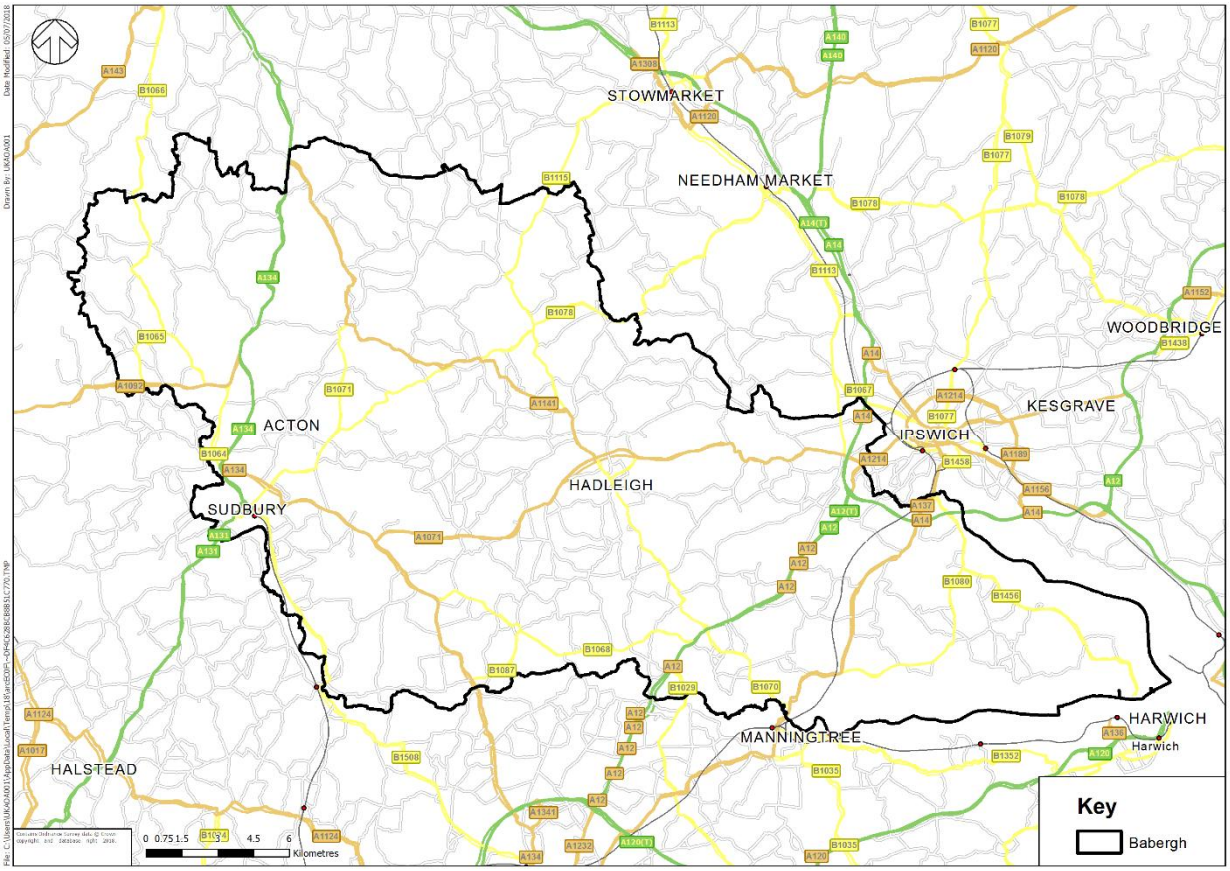
Figure 2 – Suffolk Coastal Local Plan boundary



2.3.5. The key strategic highway route through Suffolk Coastal is the A12, extending from the Seven Hills Interchange (A14 Junction 58) to Blythburgh. The A14 extends into Suffolk Coastal, culminating at Felixstowe.

2.3.6. Figure 3 shows the district boundary for Babergh, detailing the strategic highway network and main urban areas.

Figure 3 – Babergh District boundary[5]

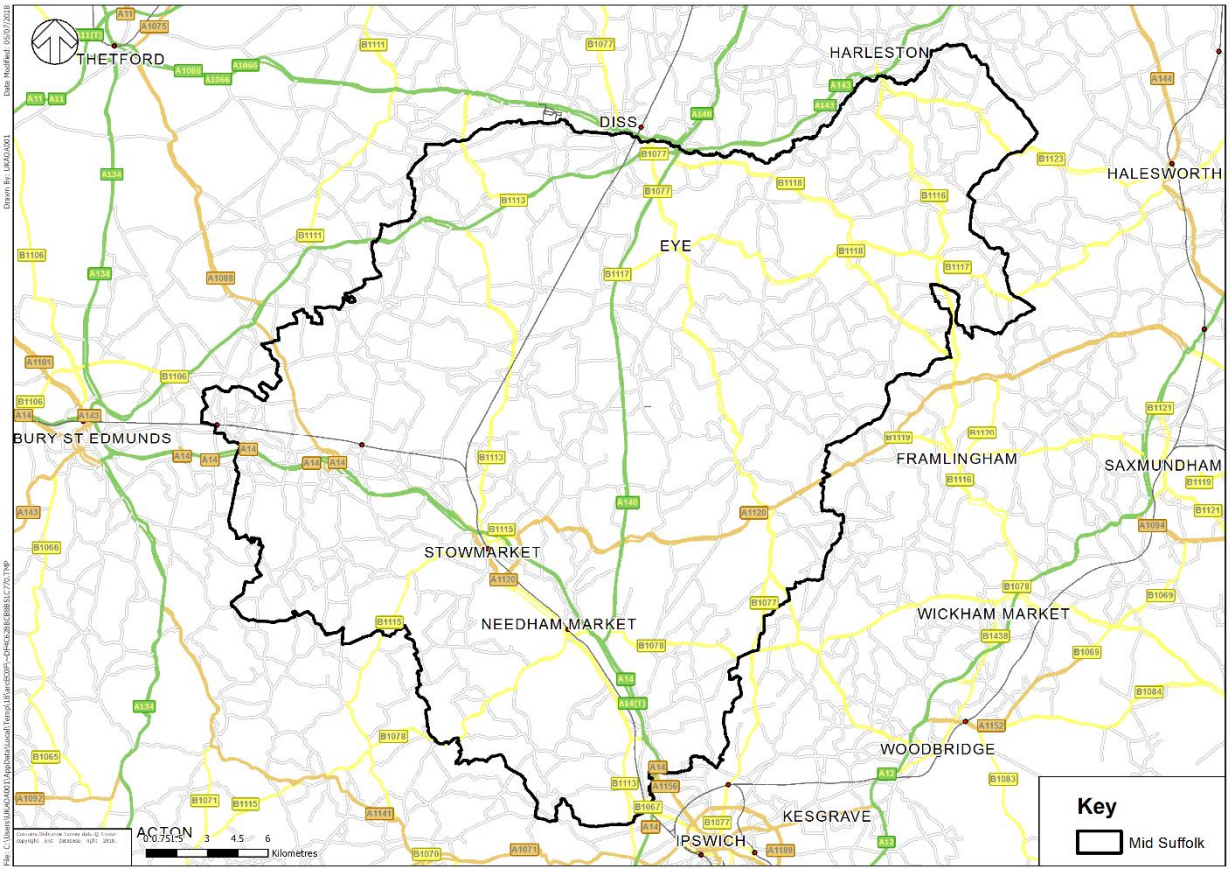


2.3.7. Sudbury is the largest urban area within Babergh, with the A12 crossing the district between Ipswich and Colchester. Another key strategic route within Babergh is the A134.

[5] The figure should not be considered as placing emphasis on the particular importance of any locations within Babergh

2.3.8. Figure 4 shows the district boundary for Mid Suffolk, detailing the strategic highway network and main urban areas.

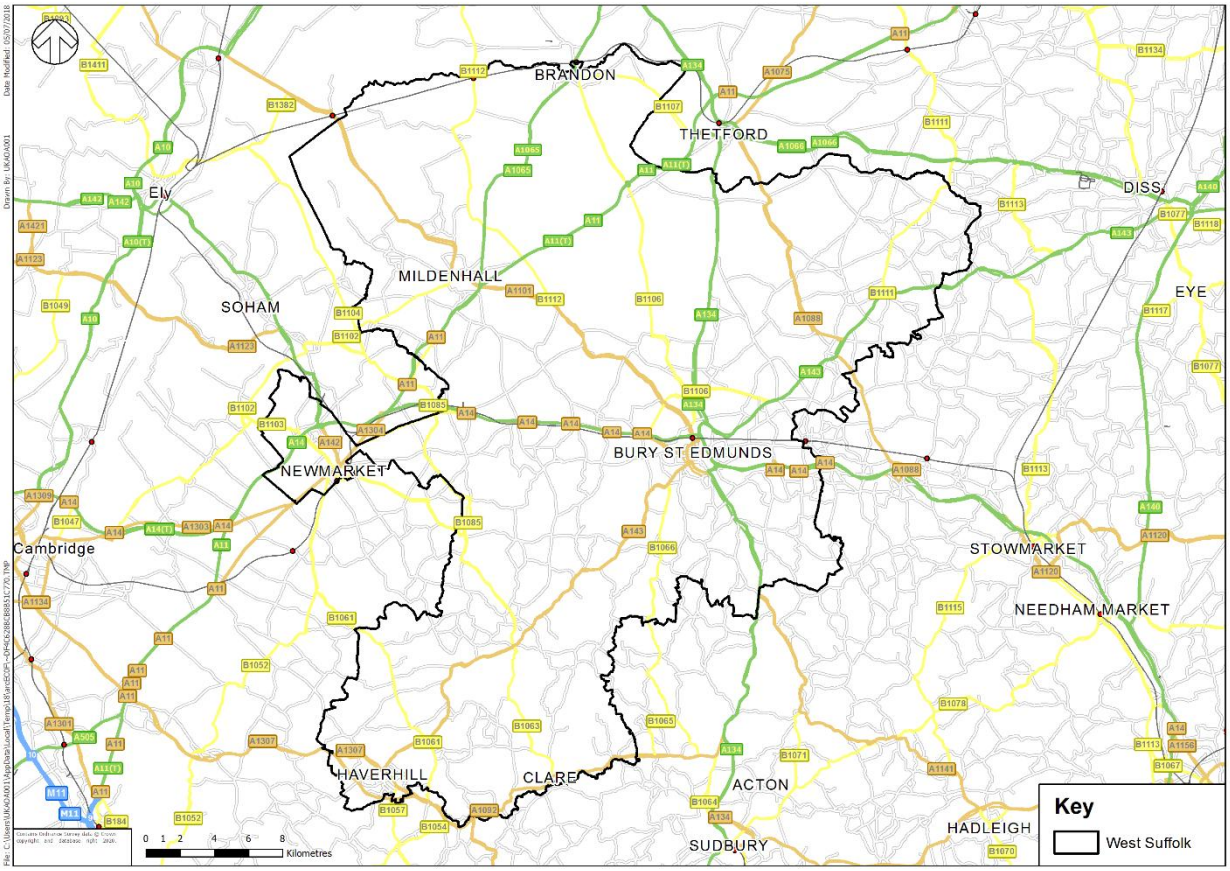
Figure 4 – Mid Suffolk District boundary



2.3.9. Stowmarket is the largest urban area within Mid Suffolk, with the A14 Junction 46 east of Bury St Edmunds to Junction 52 (Claydon) included within the district boundary. The other major strategic routes within Mid Suffolk are the A140 which extends between the A14 and Norfolk, and the A143 Diss Road.

2.3.10. Figure 5 shows the boundary for West Suffolk, detailing the strategic highway network and main urban areas.

Figure 5 – West Suffolk boundary



2.3.11. Bury St Edmunds is the largest urban area within West Suffolk, with the A14 Junction 37 at Newmarket to Junction 45 east of Bury St Edmunds included within the district boundary. The other major strategic routes within West Suffolk are the A11, A143, A134 and A1065.

2.4 FUTURE HIGHWAY SCHEMES

2.4.1. It is assumed all highway schemes detailed below will be in place in both 2026 and 2036. Table 1 lists the highway schemes which have been included in Babergh and Mid Suffolk

Table 1 – Babergh / Mid Suffolk future highway schemes

District / Borough	Description	Mitigation
Babergh	Chilton Woods access road	Access road between A134 Springlands Way (new roundabout) and Acton Lane (new priority junction)
Babergh	A1071 / Swan Hill roundabout	Capacity improvements
Babergh	A1071 / Hadleigh Road signals	Capacity improvements
Babergh	A1071 / Poplar Lane	Signalisation as part of access arrangements for Wolsey Grange
Babergh	A1214 London Road	New signalised junction part of access arrangements for Wolsey Grange
Mid Suffolk	A140 Eye Airfield	Roundabout improvements
Mid Suffolk	Port One business park access arrangements	New junction on Bramford Road with restricted turning movements as well restrictions to ensure HGVs use B1113 Bramford Road to/from A14 Junction 52 (Claydon) only

2.4.2. Table 2 shows the future highway schemes which have been included within Ipswich.

Table 2 – Ipswich future highway schemes

District / Borough	Description	Mitigation
Ipswich	Bixley Road / Heath Road / Foxhall Road	Additional lane NB for Bixley Road / Additional lane SB for Heath Road
Ipswich	Nacton Road / Maryon Road	Turn WB Nacton to two lanes, and EB Nacton to one lane
Ipswich	Upper Orwell Street	Changed to one-way southbound from St Helen's Street
Ipswich	St Helen's Street / Bond Street	Bus lane removal
Ipswich	A1214 / Bell Lane	Ban of right turn from A1214 onto Dr Watson Lane. Signalised junction of A1214 / Bell Lane changed to priority-controlled roundabout

District / Borough	Description	Mitigation
Ipswich	Ipswich Radial Corridor Route improvements - Felixstowe Road	Capacity increase to Felixstowe Road & Bixley Road arms of roundabout with A1156 Bucklesham Road. Capacity increase at Bixley Road / Ashdown Way junction
Ipswich	Ipswich Garden Suburb – Henley Gate	Two signalised junctions included as part of site access onto Henley Road
Ipswich	Ipswich Garden Suburb – Fonnereau	Priority controlled junction included on Westerfield Road in relation to access
Ipswich	Ipswich Garden Suburb – Red Hill Farm	Two priority-controlled junctions included on Westerfield Road, north and south of Fonnereau access junction
Ipswich	A1214 Valley Road / Westerfield Road	Increased capacity modelled on A1214 approaches to roundabout due to flares
Ipswich	A1214 Valley Road / Tuddenham Road	Increased capacity modelled on A1214 approaches to roundabout due to flares
Ipswich	Europa Way link road	Link road between Sproughton Road and Bramford Road, extension of Europa Way with priority-controlled roundabouts

2.4.3. Table 3 shows the future highway schemes included within East Suffolk

Table 3 – Suffolk Coastal future highway schemes

District / Borough	Description	Mitigation
East Suffolk	Brightwell Lakes - A12 corridor improvement[6]	A12 / Eagle Way / Anson Road roundabout signalisation
East Suffolk	Brightwell Lakes - A12 corridor improvement	A12 / Eagle Way / Gloster Road roundabout signalisation
East Suffolk	Brightwell Lakes - A12 corridor improvement	A12 / Foxhall Road / Newbourne Road roundabout signalisation
East Suffolk	Brightwell Lakes - A12 corridor improvement	A14 Junction 58 signalisation

[6] Brightwell Lakes is the development formerly referred to as Adastral Park

District / Borough	Description	Mitigation
East Suffolk	Brightwell Lakes - Main site access	Signalised junction between Gloster Road & Foxhall Road roundabouts
East Suffolk	Brightwell Lakes - Other site accesses	Phase 2 access onto Newbourne Road, Phase 3 access onto link forming junction with Gloster Road
East Suffolk	Walton Link Road, Felixstowe	Link road between Candlet Road and Walton High Street, as well as access junction for development
East Suffolk	Beccles Southern Relief Road	Relief Road between A145 and Ellough Road. Now built and open but included in forecast only as base year model is 2016, i.e. prior to opening.
East Suffolk	Lake Lothing Third Crossing, Lowestoft	Additional crossing within Lowestoft, priority-controlled roundabouts at both ends

2.4.4. Table 4 outlines the future highway schemes included within West Suffolk. It should be noted the inclusion of future highway infrastructure in West Suffolk has focused on schemes which would have a particular cross boundary impact with Babergh and Mid Suffolk districts, or which WSP have been notified of as having strategic significance by SCC. If the SCTM is used in future for an assessment of development across West Suffolk it is envisaged this will encompass all known consented highway infrastructure schemes within the planning authority boundary for West Suffolk.

Table 4 – West Suffolk future highway schemes (with particular focus on schemes where there are cross boundary impacts with Babergh and Mid Suffolk districts)

District / Borough	Description	Mitigation
West Suffolk	Bury St Edmunds Eastern Relief Road	Now built and open, but included in forecast only as base year model is 2016 prior to opening
West Suffolk	Haverhill NW Relief Road	Relief Road between A1307 and A143
West Suffolk	Bury St Edmunds South Eastern Relief Road	Link road south of A14 Junction 44

2.5 FORECAST DEVELOPMENT ASSUMPTIONS

2.5.1. Each LPA provided details of the overall target in terms of housing and job growth up to 2036 detailed in their respective emerging Local Plan. Interim forecasts have been generated for a forecast year of 2026. This is summarised in Table 5.

Table 5 - Overall housing and job growth modelled by LPA

LPA	Scenario	Housing growth (2016 to 2026)	Job growth (2016 to 2026)	Housing growth (2016 to 2036)	Job growth (2016 to 2036)
Babergh	Preferred Option	4,458	1,410	9,759	3,300
Ipswich	Final Draft	3,768	5,471	9,502	10,348
Mid Suffolk	Preferred Option	6,293	3,625	13,725	5,860
Suffolk Coastal	Final Draft[7]	7,682	5,395	13,298	10,410
Waveney	Final Draft	4,568	2,386	9,136	3,836
West Suffolk	Development Options[8]	12,275	3,411	21,718	13,006
Total	**All LPAs**	**39,044**	**21,698**	**77,138**	**46,760**

2.5.2. The Suffolk Local Plan Modelling Methodology Report (July 2020) provides greater detail on the approach taken for each of the model runs and their associated development inputs

[7] This is the Suffolk Coastal Final Draft Local Plan, minus jobs associated with Innocence Farm

[8] West Suffolk housing total figures comes from the sum total of household growth in TEMPro / NTEM 7.2 which still distinguishes between the former districts of Forest Heath and St Edmundsbury within West Suffolk. West Suffolk 2016-2036 job total figure is the sum total of jobs assumed at Suffolk Business Park and Shepherds Grove

3

RESULTS

3 RESULTS

3.1 SUFFOLK HIGHWAY FOCUS

3.1.1. The results within this report focus only on roads which are part of SCC's highway network. Impacts of adjusted ISPA Local Plan growth on the Strategic Road Network (SRN), namely the A14 and A12 (between Essex and A14 J55 Copdock Interchange) has previously been reported in a separate technical completed in July 2019. Locations which are on the interface between the SRN and SCC's highway network are included in this report and are included separately to junctions solely the responsibility of SCC.

3.2 VOLUME TO CAPACITY RATIO

3.2.1. Analysis has been undertaken to determine which junctions within the model are forecast to experience congestion. The Volume to Capacity (V/C) percentage has been focused on to determine which junctions are approaching or over capacity. The V/C percentage has been taken directly from SATURN and is based on a combination of flow, delay and capacity for each approach arm and turning movement at a junction.

3.2.2. Table 6 describes the typology used to distinguish between whether junctions are forecast to experience congestion problems in both peak hours or single peak hour and considers the severity of the congestion.

Table 6 – Volume to capacity ratio categorisation, Junctions

Type	Description
1	100%+ both peaks
2	100%+ in one peak / 85-99% in other peak
3	100%+ in one peak / Less than 85% in other peak
4	85-99% in both peaks
5	85-99% in one peak / Less than 85% in the other peak

3.2.3. Link based V/C has also been analysed representing individual approaches to junctions and intermediary links between junctions. The maximum V/C between the respective AM and PM peak hour assignments for each forecast year is graphically presented alongside overall junction V/C in this report.

3.3 MODEL RUNS COMPARED

The model runs considered within this report are as follows:

- 2026/36 AM/PM
- 2026/36 AM/PM with demand adjustments

3.3.1. The Suffolk Local Plan Methodology Report (July 2020) provides details on the approach which has been undertaken in terms of the demand adjustments. At an aggregate level across Suffolk, the demand adjustments lead to a decrease in car traffic of around 5% in 2026 and 2036.

3.3.2. The model runs represent modelling assumptions which are consistent with the previous Local Plan modelling undertaken to support the Ipswich and Suffolk Coastal Final Draft Local Plans. Preferred option assumptions have now also been included for Babergh and Mid Suffolk, as well as assumptions in West Suffolk.

3.4 PASSENGER CAR UNIT HOUR DELAY REDUCTION BY LPA – DEMAND ADJUSTMENT IMPACT

3.4.1. A metric which can be used to demonstrate the benefit of the demand adjustment is the reduction in Passenger Car Unit (PCU) hours delay. The strategic model includes trips based on PCUs (1 PCU is equivalent to a standard car length of 5.75m). This is done to ensure the impact of HGVs on the road network is considered as they are representing in the SCTM by a PCU value of 2.3 which is consistent with DfT Transport Analysis Guidance (TAG).

3.4.2. The strategic model also provides information on the average delay per PCU for both links and junctions. The average delay can be multiplied by the number of trips and converted to hours to determine the total PCU hours delay.

3.4.3. This analysis has been undertaken for junctions within the ISPA on local highway authority links to demonstrate the reduction in delay which results from the demand adjustments.

3.4.4. Table 7 demonstrates an overall reduction in PCU.hours delay on the SCC Highway network of 18% in the AM 2026, with the reduction most marked within Ipswich which reduces by 26%.

Table 7 – Reduction in PCU. Hours Delay (AM 2026) – SCC Highway

Adjustment	No Adjustment (PCU. Hrs Delay)	With Adjustment (PCU. Hrs Delay)	Abs Diff (PCU. Hrs Delay)	Prcnt Diff (PCU. Hrs Delay)
Ipswich	2042	1518	-524	-26%
Suffolk Coastal	1022	870	-152	-15%
Mid Suffolk	401	358	-43	-11%
Babergh	537	455	-82	-15%
West Suffolk	1195	1037	-158	-13%
Total	**5196**	**4238**	**-958**	**-18%**

3.4.5. Table 8 shows an average reduction in delay of 15% for SCC/SRN interface junctions.

Table 8 – Reduction in PCU. Hours Delay (AM 2026) – SCC Highway / SRN interface

Adjustment	No Adjustment (PCU. Hrs Delay)	With Adjustment (PCU. Hrs Delay)	Abs Diff (PCU. Hrs Delay)	Prcnt Diff (PCU. Hrs Delay)
Ipswich	109	95	-14	-13%
Suffolk Coastal	138	116	-22	-16%
Mid Suffolk	98	87	-11	-11%
Babergh	265	223	-42	-16%
West Suffolk	88	74	-14	-16%
Total	**697**	**595**	**-103**	**-15%**

3.4.6. Table 9 demonstrates an overall reduction in PCU.hours delay on the SCC Highway network of 17% in the PM 2026, with the reduction most marked within Ipswich which reduces by 25%. Therefore, the level of reduction in delay is generally similar between the AM and PM peak models in 2026.

Table 9 – Reduction in PCU. Hours Delay (PM 2026) – SCC Highway

Adjustment	No Adjustment (PCU. Hrs Delay)	With Adjustment (PCU. Hrs Delay)	Abs Diff (PCU. Hrs Delay)	Prcnt Diff (PCU. Hrs Delay)
Ipswich	1929	1453	-476	-25%
Suffolk Coastal	974	815	-159	-16%
Mid Suffolk	413	373	-40	-10%
Babergh	690	609	-82	-12%
West Suffolk	1459	1275	-184	-13%
Total	**5465**	**4525**	**-941**	**-17%**

3.4.7. Table 10 shows an average reduction in delay of 16% for SCC/SRN interface junctions.

Table 10 – Reduction in PCU. Hours Delay (PM 2026) – SCC Highway / SRN interface

Adjustment	No Adjustment (PCU. Hrs Delay)	With Adjustment (PCU. Hrs Delay)	Abs Diff (PCU. Hrs Delay)	Prcnt Diff (PCU. Hrs Delay)
Ipswich	55	44	-11	-19%
Suffolk Coastal	80	73	-7	-9%
Mid Suffolk	99	87	-12	-12%
Babergh	174	124	-50	-29%
West Suffolk	159	148	-11	-7%
Total	**567**	**476**	**-91**	**-16%**

3.4.8. Table 11 demonstrates an overall reduction in PCU.hours delay on the SCC Highway network of 19% in the AM 2036, with the largest reduction occurring with Ipswich which reduces by 26%. Table 12 shows an average reduction in delay of 14% for SCC/SRN interface junctions.

Table 11 – Reduction in PCU. Hours Delay (AM 2036) – SCC Highway

Adjustment	No Adjustment (PCU. Hrs Delay)	With Adjustment (PCU. Hrs Delay)	Abs Diff (PCU. Hrs Delay)	Prcnt Diff (PCU. Hrs Delay)
Ipswich	4048	2978	-1070	-26%
Suffolk Coastal	1800	1493	-308	-17%
Mid Suffolk	891	776	-115	-13%
Babergh	1190	1030	-160	-13%
West Suffolk	2319	1982	-337	-15%
Total	**10247**	**8258**	**-1989**	**-19%**

Table 12 – Reduction in PCU. Hours Delay (AM 2036) – SCC Highway / SRN interface

Adjustment	No Adjustment (PCU. Hrs Delay)	With Adjustment (PCU. Hrs Delay)	Abs Diff (PCU. Hrs Delay)	Prcnt Diff (PCU. Hrs Delay)
Ipswich	132	130	-2	-2%
Suffolk Coastal	236	187	-49	-21%
Mid Suffolk	192	175	-17	-9%
Babergh	457	369	-88	-19%
West Suffolk	256	230	-26	-10%
Total	**1273**	**1091**	**-182**	**-14%**

3.4.9.

3.4.10. Table 13 demonstrates an overall reduction in PCU.hours delay on the SCC Highway network of 20% in the PM 2036, with the reduction being highest in Ipswich which reduces by 27%. This demonstrates the demand reduction has a comparatively higher impact in the PM peak in 2036 compared to 2026. Table 14 shows there is generally a greater reduction in delays on the SCC/SRN interface, with an average reduction in delays of 24%.

Table 13 – Reduction in PCU. Hours Delay (PM 2036) – SCC Highway

Adjustment	No Adjustment (PCU. Hrs Delay)	With Adjustment (PCU. Hrs Delay)	Abs Diff (PCU. Hrs Delay)	Prcnt Diff (PCU. Hrs Delay)
Ipswich	3810	2764	-1046	-27%
Suffolk Coastal	1668	1309	-359	-22%
Mid Suffolk	866	765	-101	-12%
Babergh	1299	1128	-170	-13%
West Suffolk	2693	2338	-355	-13%
Total	**10336**	**8305**	**-2031**	**-20%**

Table 14 – Reduction in PCU. Hours Delay (PM 2036) – SCC Highway / SRN interface

Adjustment	No Adjustment (PCU. Hrs Delay)	With Adjustment (PCU. Hrs Delay)	Abs Diff (PCU. Hrs Delay)	Prcnt Diff (PCU. Hrs Delay)
Ipswich	64	56	-9	-13%
Suffolk Coastal	346	164	-183	-53%
Mid Suffolk	222	201	-22	-10%
Babergh	321	250	-70	-22%
West Suffolk	411	370	-41	-10%
Total	**1365**	**1040**	**-324**	**-24%**

3.4.11. The analysis of PCU hours delay demonstrates the demand adjustment has a significant benefit in reducing delays to vehicles across all authorities within the ISPA. Around 900 – 950 PCU hours are saved on the SCC highway network in 2026, with this figure reaching around 2,000 vehicle hours in 2036. This demonstrates the mitigation will ease congestion on the highway network.

3.5 OVERALL JUNCTION V/C SUMMARY BY LPA – DEMAND ADJUSTMENT IMPACT

3.5.1. The analysis within the remainder of Section 3 focuses on the modelling results from the assignments which include the demand adjustments.

3.5.2. Appendix A provides tables detailing each of junction within the ISPA which is flagged as having a V/C of over 85% or greater in any of the model runs with or without the demand adjustments. Comparisons are also presented within Appendix A to indicate whether the junctions flagged also showed overall V/C issues in the January 2020 results report (Model Run 7).

3.5.3. Analysis of the junctions in the forecast modelling which are shown to experience congestion have been analysed for the five ISPA LPAs.

3.5.4. The number junctions which reach an overall V/C of 85%+ is shown in the following tables

- Table 15 for AM peak SCC junctions
- Table 16 for AM peak SCC/SRN interface junctions
- Table 17 for PM peak SCC junctions
-
- Table 18 for PM peak SCC/SRN interface junctions

3.5.5. This analysis demonstrates the following:

- Ipswich Borough contains the highest number of congested junctions with a V/C of 85%+ in all time periods
- In 2026 AM, the demand adjustment leads to eight fewer junctions reaching a V/C of 85%+. The description of these junctions is as follows:
  - A1022 College St / Bridge St (by St Peter's) (Ipswich)
  - A1022 College St / Foundry Ln (Ipswich)
  - Foxhall Rd / A1189 Heath Rd roundabout (Ipswich)
  - A1214 Valley Rd / Dale Hall Ln (Ipswich)
  - B1067 Bramford Rd / Sproughton Rd (Ipswich)
  - A12 / A1214 (Main Rd) Roundabout – A1214 EB entry (Suffolk Coastal)
  - A12 / B1438 (near Woodbridge) (Suffolk Coastal)
  - A134 / Station Rd / The St at Barnham (St Bury Edmunds)
- In 2036 AM, the demand adjustment leads to sixteen fewer junctions reaching a V/C of 85%+, the description of these junctions is as follows:
  - Buck's Horns Lane/Church Lane (Babergh)
  - A14 / A12 (Copdock) - A14 WB Slip Node (Babergh SRN interface junction)
  - A142 Fornham Road / Snailwell Road (Forest Heath)
  - St Helens Street / Grimwade St / Argyle St (Ipswich)
  - St Peter's Dock / Foundry Ln (Ipswich)
  - Heath Road hospital access (Ipswich)
  - Colchester Rd / A1214 Woodbridge Rd E (Ipswich)
  - A1214 / A1189 (Ipswich)
  - Landseer Road / Nacton Road (Ipswich)

- A1189 Felixstowe Rd / Bucklesham Rd roundabout (Ipswich)
- Central Avenue (Ipswich)
- Hollow Road, rail bridge (St Bury Edmunds)
- A1302 Parkway / St Andrews St North (St Bury Edmunds)
- Mustow Street / Northgate Street (St Bury Edmunds)
- A143 Compiegne Way / A134 (St Bury Edmunds)
- B1078 Coddenham Road / Kettle Lane / slip to A14 northbound (Mid Suffolk SRN interface)

Table 15 – Junctions with overall V/C ratio of 85%+ (AM Peak) – SCC Highway

LPA	2016 Base	2026 ISPA No Adjustment	2026 ISPA With Adjustment	2036 ISPA No Adjustment	2036 ISPA With Adjustment
Ipswich	2	11	6	23	15
Suffolk Coastal	0	4	2	4	4
Mid Suffolk	0	0	0	2	2
Babergh	0	2	2	5	3
West Suffolk	1	2	1	14	9
Total	**3**	**19**	**11**	**48**	**33**

Table 16 – Junctions with overall V/C ratio of 85%+ (AM Peak) – SCC Highway / SRN interface

LPA	2016 Base	2026 ISPA No Adjustment	2026 ISPA With Adjustment	2036 ISPA No Adjustment	2036 ISPA With Adjustment
Ipswich	0	0	0	0	0
Suffolk Coastal	1	3	3	3	3
Mid Suffolk	1	2	2	6	5
Babergh	0	0	0	1	1
West Suffolk	0	1	1	4	4
Total	**2**	**6**	**6**	**14**	**13**

- In 2026 PM, the demand adjustment leads to four fewer junctions reaching a V/C of 85%+:
  - A1022 College St / Bridge St (by St Peter's) (Ipswich)
  - College Street / Foundry Lane (Ipswich)
  - Rushmere Road / Colchester Road (Ipswich)
  - Heath Road / Foxhall Road (Ipswich)

- In 2036 PM, the demand adjustment leads to nineteen fewer junctions reaching a V/C of 85%+, nine in Ipswich, three in Mid Suffolk, four in Suffolk Coastal, and three in St Bury Edmunds as described below:
  - Lower Orwell Street / Key Street (Ipswich)
  - Salthouse Street / Fore Street (Ipswich)
  - Star Lane / Foundation Street / Lower Brook Street (Ipswich)
  - Lower Orwell Street / Star Lane (Ipswich)
  - A1156 St Margaret's Street (Ipswich)
  - A1214 / A137 / A1071 / Yarmouth Road (Ipswich)
  - A1214 / Tuddenham Road (Ipswich)
  - Woodbridge Rd / Albion Hill / Belvedere Rd (Ipswich)
  - Felixstowe Road/King's Way/Cobham Road (Ipswich)
  - A143 Old Bury Road / A143 Scole Stuston Bypass / A140 Scole Bypass - Scole (Mid Suffolk)
  - A140 Angel Hill / A1120 (West) (Mid Suffolk)
  - A14 junction number J47a (Mid Suffolk SRN interface junction)
  - A12 / B1438 (near Woodbridge) (Suffolk Coastal)
  - B1438 Ipswich Road / Top Street Roundabout (Suffolk Coastal)
  - Foxhall Road / Bell Lane (Suffolk Coastal)
  - A14 / A12 - A1156 Entry (Suffolk Coastal)
  - Southgate Street / St Mary's Square (St Bury Edmunds)
  - A143 / Stow Road (St Bury Edmunds)
  - A134 / A14 of J43 Southbound approach (St Bury Edmunds SRN interface junction)
- In 2036 PM, the demand adjustment leads to one more junction reaching a V/C of 85%+ when compared to prior adjustments:
  - A14 / A12 Seven Hills roundabout WB on ramp (Suffolk Coastal SRN interface junction)

Table 17 – Junctions with overall V/C ratio of 85%+ (PM Peak) – SCC Highway

LPA	2016 Base	2026 ISPA No Adjustment	2026 ISPA With Adjustment	2036 ISPA No Adjustment	2036 ISPA With Adjustment
Ipswich	1	6	2	23	14
Suffolk Coastal	0	2	2	6	3
Mid Suffolk	0	0	0	3	1
Babergh	1	3	3	6	6
West Suffolk	1	6	6	14	11
Total	**3**	**17**	**13**	**52**	**35**

Table 18 – Junctions with overall V/C ratio of 85%+ (PM Peak) – SCC Highway / SRN interface

LPA	2016 Base	2026 ISPA No Adjustment	2026 ISPA With Adjustment	2036 ISPA No Adjustment	2036 ISPA With Adjustment
Ipswich	0	0	0	0	0
Suffolk Coastal	0	0	0	1	1
Mid Suffolk	0	1	1	3	2
Babergh	0	0	0	2	2
West Suffolk	0	1	1	3	2
Total	**0**	**1**	**1**	**6**	**5**

3.6 OVERALL LINK V/C SUMMARY BY LPA – DEMAND ADJUSTMENT IMPACT

3.6.1. Link based V/C will now be focused on across each ISPA LPA. Links which are over capacity with a V/C of 100%+ have been focused on as these represent the most congested locations on the road network which are likely to cause delay. Appendix B provides a text description of the junctions which have an over capacity approach, comparing without and with the demand adjustment. This comparison is based on the maximum V/C value shown for a link at the named junction. Comparisons are also presented within Appendix B to indicate whether the junctions flagged also showed overall V/C issues in the January 2020 results report (Model Run 7).

3.6.2. Table 19 shows a comparison of over-capacity links in the AM peak with and without the ISPA demand adjustment. The results in this table show:

- Around 40% of the over-capacity links are in Ipswich
- The number of over-capacity links reduces by around 40% in 2026 AM following the adjustment
- Over-capacity links reduce by around 25% in 2036 AM following the adjustment

Table 19 – Over-capacity links with V/C ratio of 100%+ (AM Peak) – SCC Hwy

LPA	2016 Base	2026 ISPA No Adjustment	2026 ISPA With Adjustment	2036 ISPA No Adjustment	2036 ISPA With Adjustment
Ipswich	6	23	14	62	39
Suffolk Coastal	2	9	6	21	18
Mid Suffolk	1	4	2	11	11
Babergh	2	6	3	15	13

West Suffolk	3	12	7	32	25
Total	**14**	**54**	**32**	**141**	**106**

Table 20 – Over-capacity links with V/C ratio of 100%+ (AM Peak) – SCC Hwy / SRN interface

LPA	2016 Base	2026 ISPA No Adjustment	2026 ISPA With Adjustment	2036 ISPA No Adjustment	2036 ISPA With Adjustment
Ipswich	1	1	1	1	1
Suffolk Coastal	2	1	1	3	3
Mid Suffolk	0	0	0	4	4
Babergh	1	2	2	4	4
West Suffolk	0	1	1	4	3
Total	**4**	**5**	**5**	**16**	**15**

3.6.3. Table 21 shows a comparison of over-capacity links in the PM peak with and without the ISPA demand adjustment. The results in this table show:

- Without adjustment in 2026, 35% of over-capacity links are in Ipswich in the PM peak
- Without adjustment in 2036, 42% of over-capacity links are in Ipswich in the PM peak
- The number of over-capacity links reduces by % in 2026 PM following the adjustment. Ipswich shows the most significant impacts as a result of the demand adjustments with a 44% reduction in over-capacity links
- Over-capacity links reduce by 24% in 2036 PM following the adjustment

Table 21 – Over-capacity links with V/C ratio of 100%+ (PM Peak) – SCC Hwy

LPA	2016 Base	2026 ISPA No Adjustment	2026 ISPA With Adjustment	2036 ISPA No Adjustment	2036 ISPA With Adjustment
Ipswich	2	16	9	60	35
Suffolk Coastal	0	5	2	15	11
Mid Suffolk	0	3	1	14	15
Babergh	2	5	4	15	14
West Suffolk	3	16	13	39	34
Total	**7**	**45**	**29**	**143**	**109**

Table 22 – Over-capacity links with V/C ratio of 100%+ (PM Peak) – SCC Hwy / SRN interface

LPA	2016 Base	2026 ISPA No Adjustment	2026 ISPA With Adjustment	2036 ISPA No Adjustment	2036 ISPA With Adjustment
Ipswich	0	1	0	1	1
Suffolk Coastal	0	0	0	1	0
Mid Suffolk	0	0	0	3	3
Babergh	0	2	1	3	3
West Suffolk	0	2	2	4	3
Total	**0**	**5**	**3**	**12**	**10**

3.7 RESULTS SUMMARIES WITH DEMAND ADJUSTMENT

3.7.1. Following the demand adjustment which has been made to the 2026 and 2036 forecasts, the resultant locations which continue to show capacity issues are focused on based on study areas within each LPA as follows:

- Babergh
  - West & South West Ipswich
  - Sudbury
  - Brantham
- Mid Suffolk
  - A140 corridor
  - Stowmarket
  - Great Blakenham / Claydon
  - East of Bury St Edmunds (Cross boundary area with Babergh & Mid Suffolk)
- West Suffolk
  - Bury St Edmunds
- Ipswich
- Suffolk Coastal
  - Saxmundham
  - Woodbridge & Melton
  - A12 East of Ipswich
  - Felixstowe
  - Nacton to Trimley St. Martin

3.7.2. Results are presented for each of the study areas in terms of overall junction V/C as well as link-based V/C.

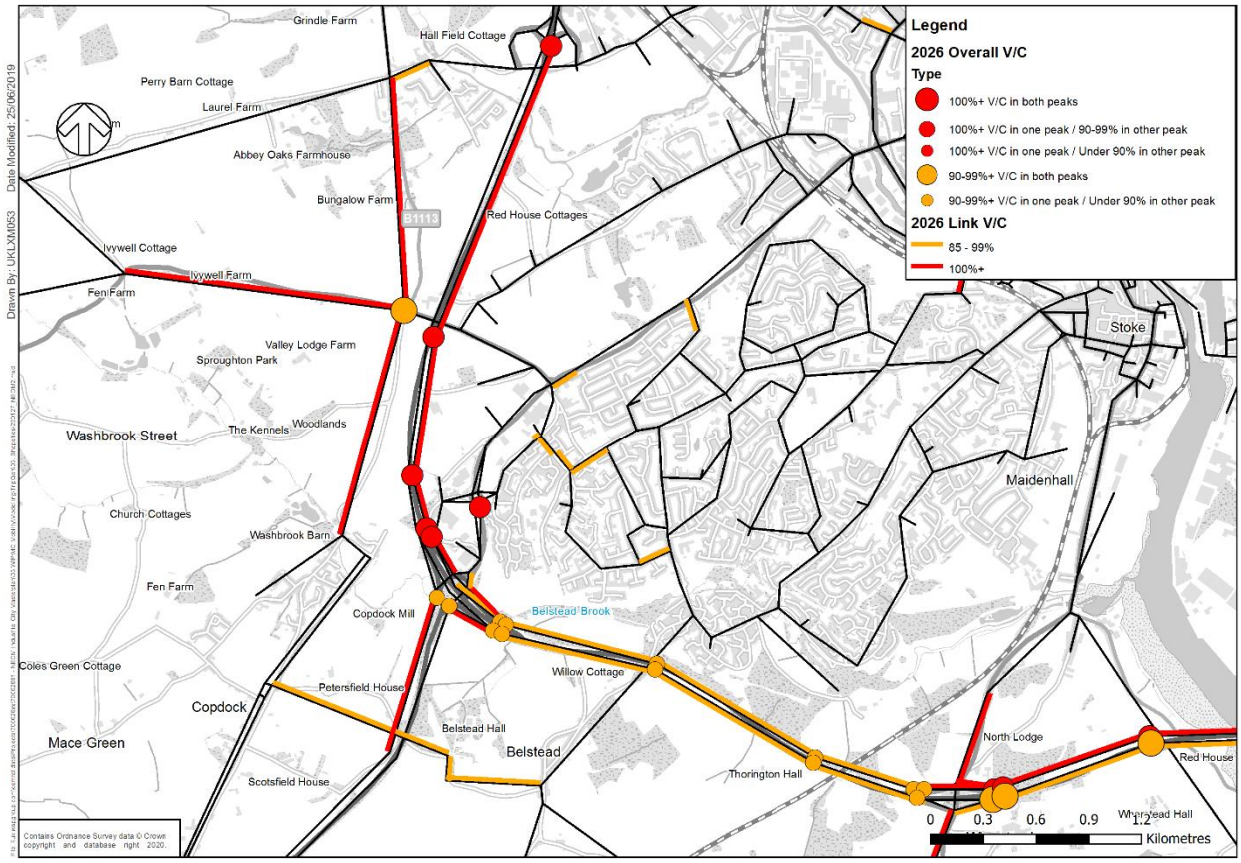
3.8 BABERGH RESULTS SUMMARY

WEST / SOUTH WEST OF IPSWICH

3.8.1. The A1071 / B1113 (Beagle roundabout) is approaching or over capacity on multiple arms during the AM and PM peak in 2026/36. Congestion in this area is significantly affected by the increasing delay at the A12 approach to the Copdock Interchange (A14 Junction 55, Location 3 in Figure 6/Figure 7) which does not include any mitigation in the modelling. The high delay on the A12 approach leads to increased pressure on adjacent non-SRN road network as traffic opts to seek alternative routes.

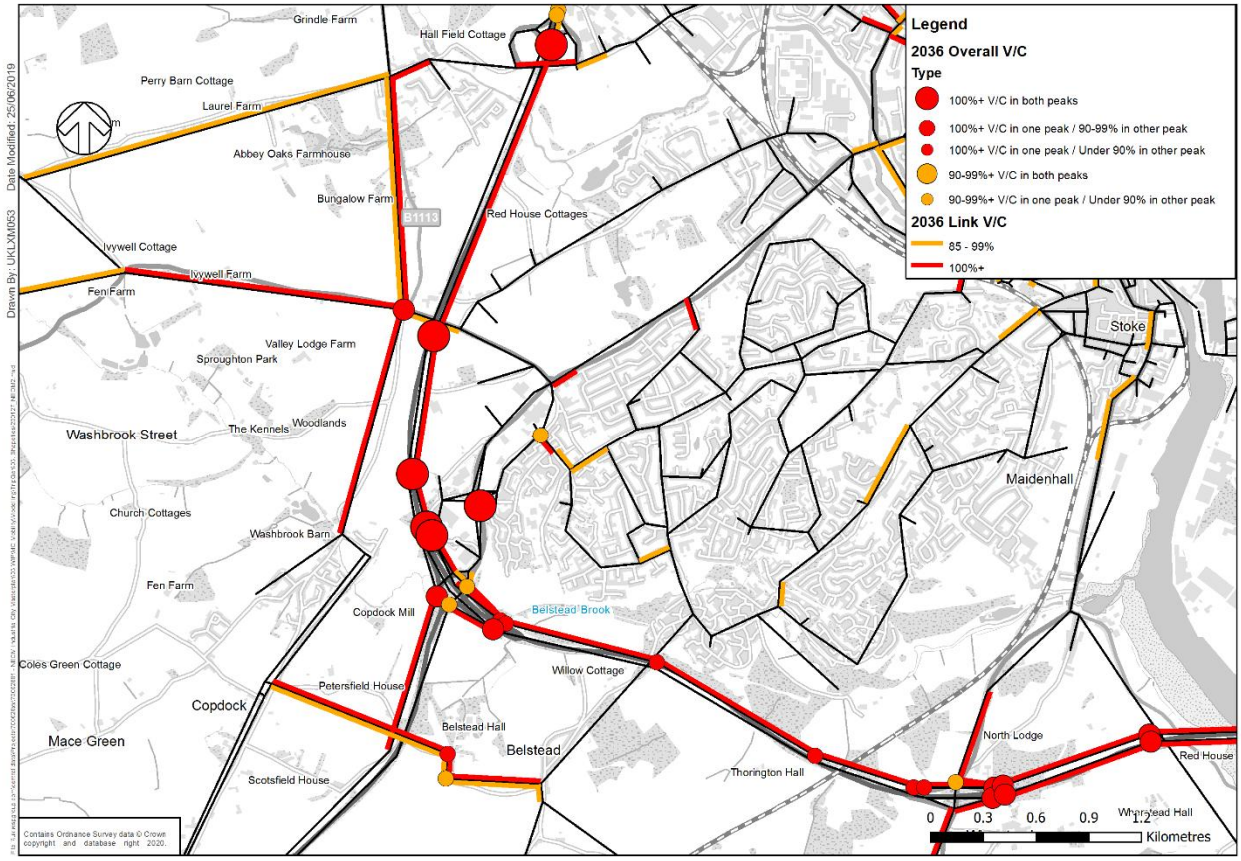
Figure 6 shows the 2026 V/C performance for the west and south-western edge of Ipswich which is within Babergh.

Figure 6 – West / South West of Ipswich – 2026 Links and Junctions with V/C 85%+ - With Adjustment



3.8.3. Figure 7 shows the 2026 V/C performance for the west and south-western edge of Ipswich which is within Babergh.

Figure 7 – West / South West of Ipswich – 2036 Links and Junctions with V/C 85%+ - With Adjustment

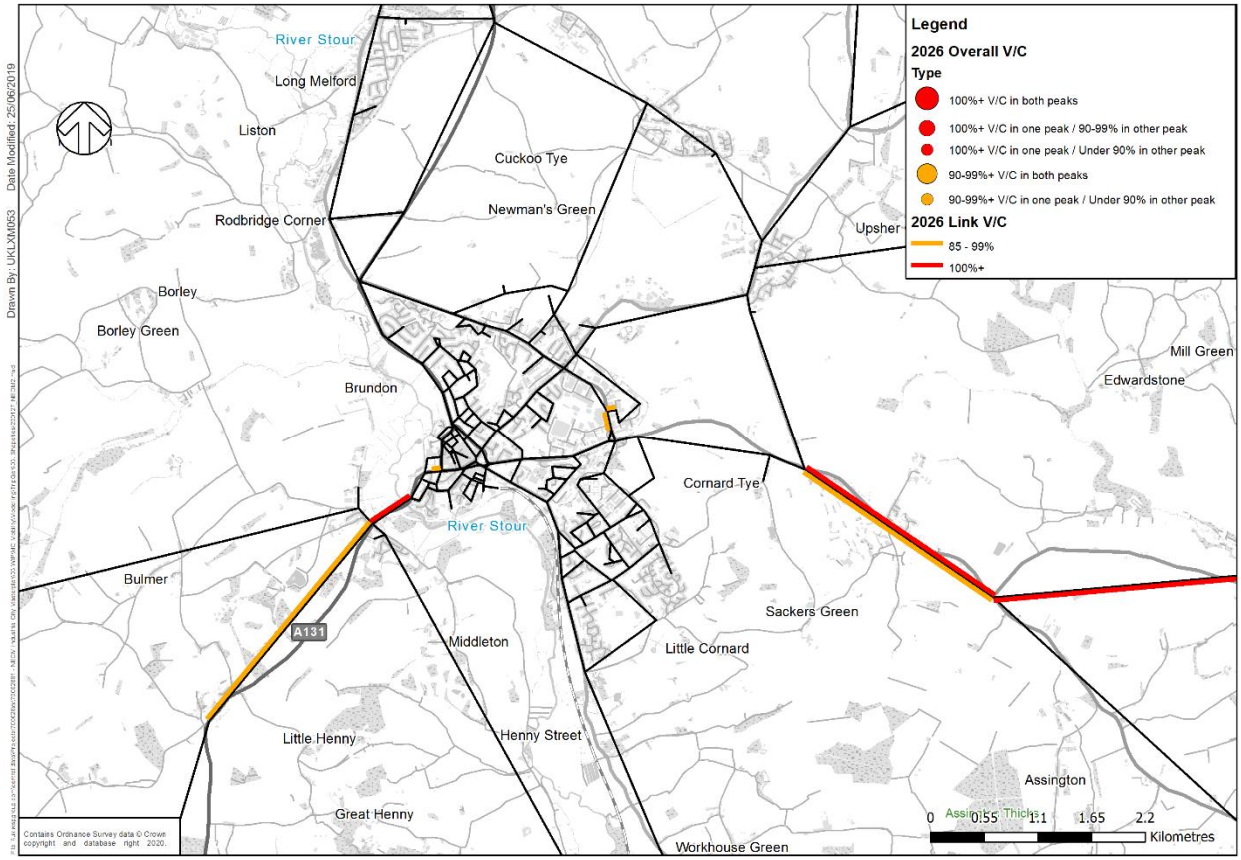


SUDBURY

3.8.4. There is congestion within Sudbury and on the approach routes to Sudbury. The A134 is congested between Valley Road and the A1071 in both directions in AM/PM 2026/36. The A131 is congested between Bulmer Road and the B1115 in both directions in AM/PM 2026/36.

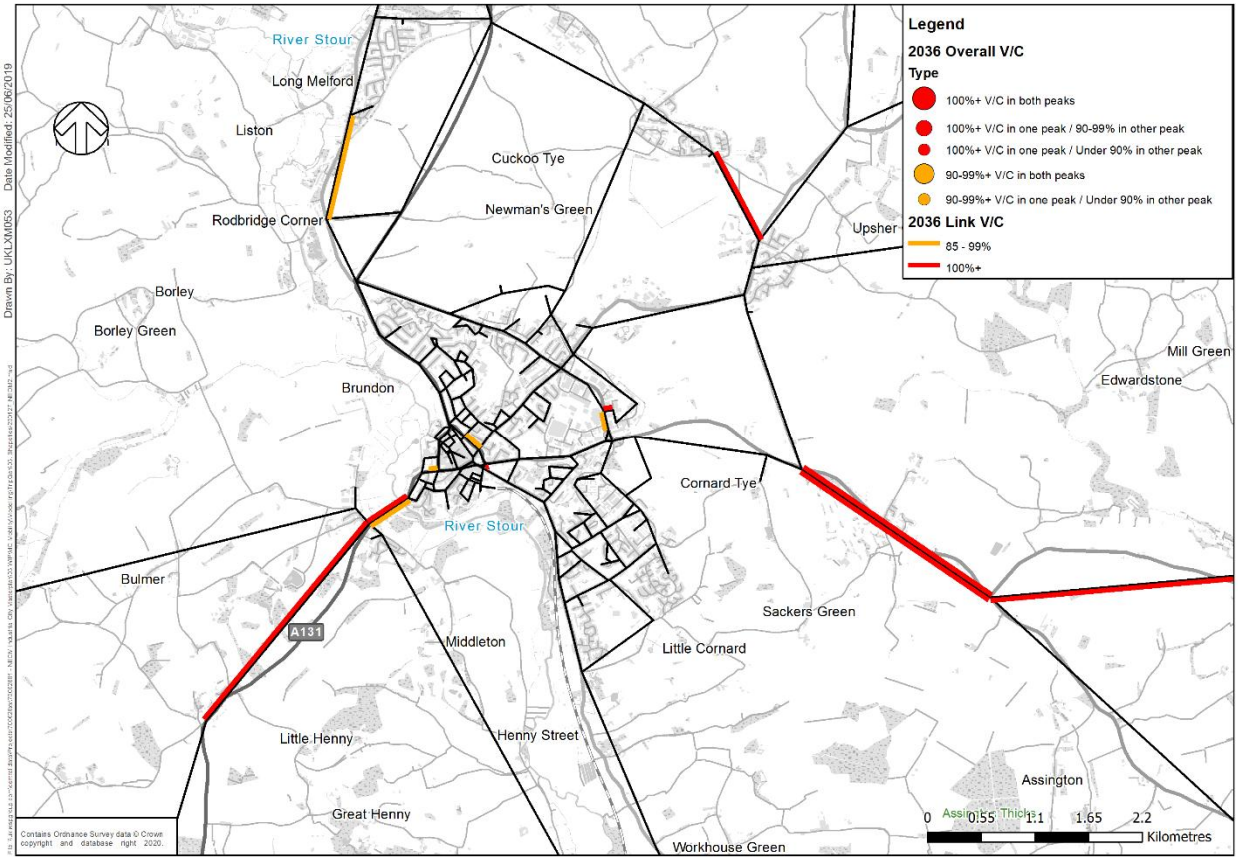
3.8.5. Figure 8 presents the V/C performance for Sudbury in 2026.

Figure 8 – Sudbury – 2026 Links and Junctions with V/C 85%+ - With Adjustment



3.8.6. Figure 9 shows the V/C performance for Sudbury in 2036.

Figure 9 – Sudbury – 2036 Links and Junctions with V/C 85%+ - With Adjustment

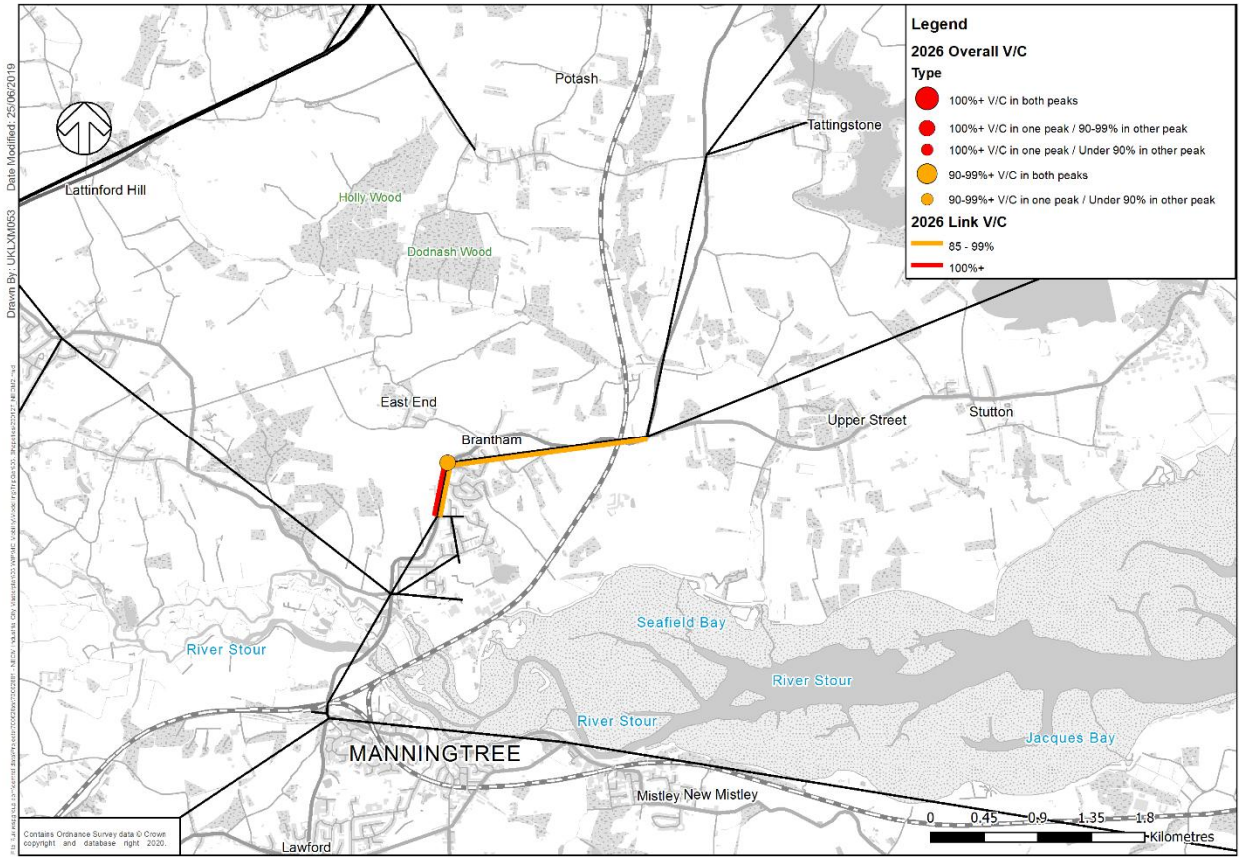


BRANTHAM

3.8.7. The A137 through Brantham is shown to be operating close to and over-capacity in 2026 and 2036. There is a significant level of development associated with the Brantham Industrial Estate which has been included at this location.

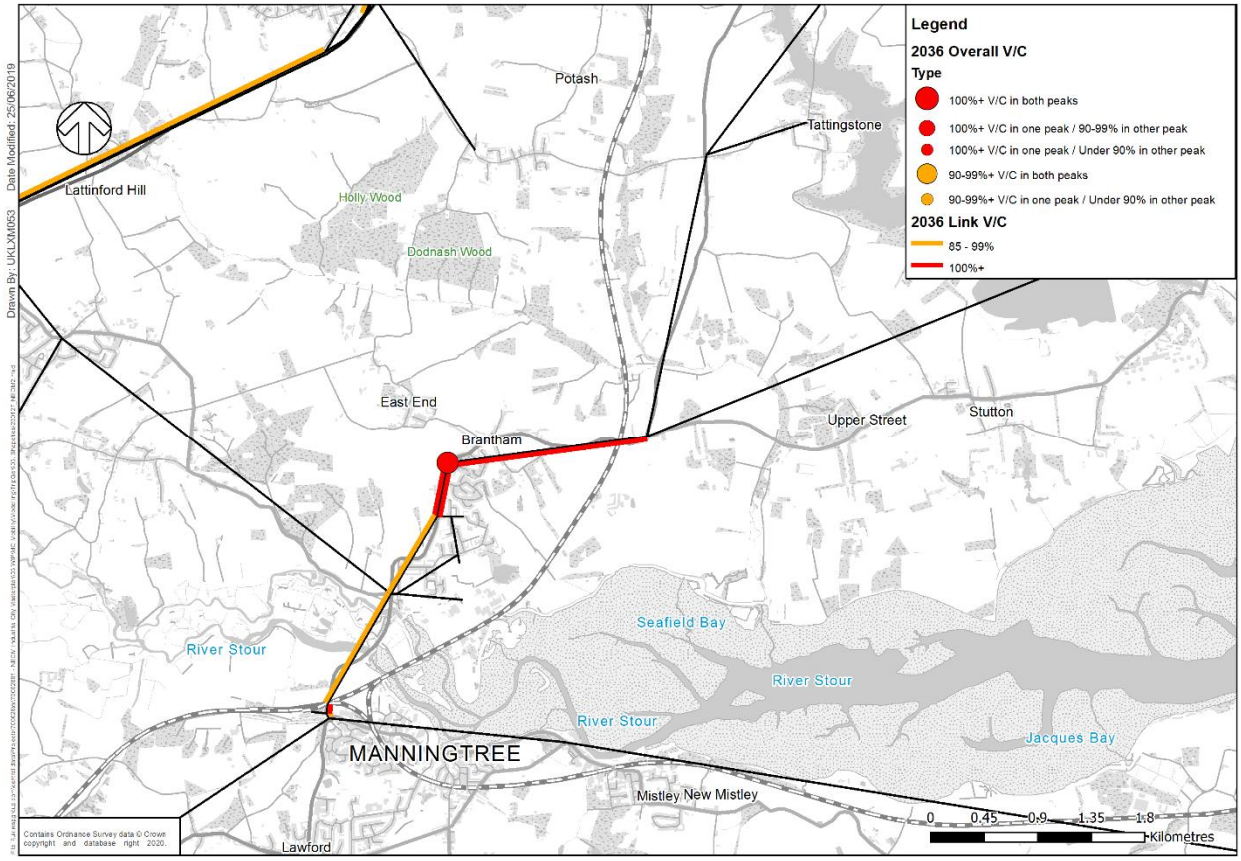
3.8.8. Figure 10 shows V/C performance around Brantham in 2026.

Figure 10 – Brantham – 2026 Links and Junctions with V/C 85%+ - With Adjustment



3.8.9. Figure 11 highlights the V/C performance in 2036 around Brantham.

Figure 11 – Brantham – 2036 Links and Junctions with V/C 85%+ - With Adjustment



3.9 MID SUFFOLK RESULTS SUMMARY

A140 CORRIDOR

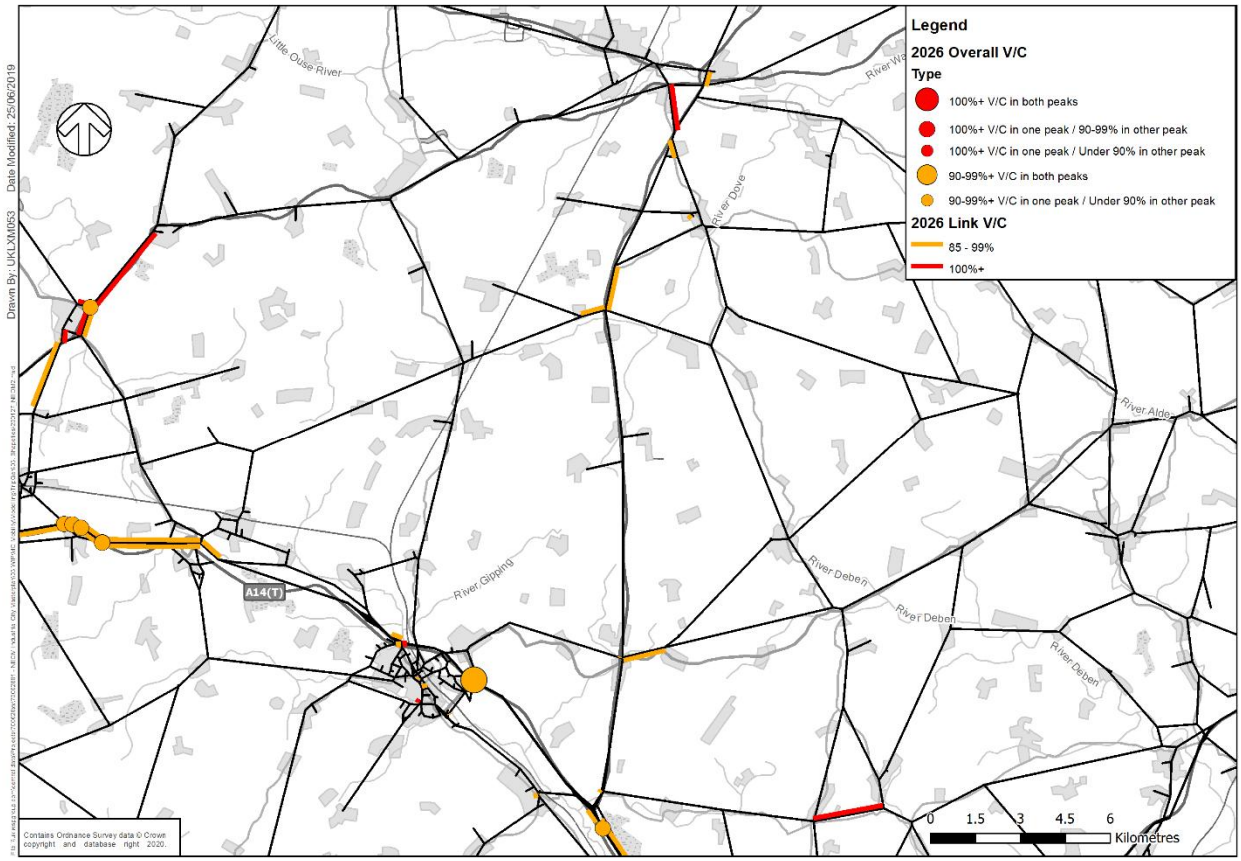
3.9.1. The A140/A1120 Junction is over capacity in the AM and PM peaks periods in 2026/36.

3.9.2. The A140 / Workhouse Road / Stoke Road north and west approaches are nearing capacity in 2026 AM/PM peaks, and over capacity in 2036 AM/PM peaks.

3.9.3. Several approach roads to the A140 between Workhouse Road and the Scole Bridge are nearing or over capacity in the AM/PM peak in 2026/36. The A140 at the Scole Bridge is nearing capacity in 2026 AM peak, and over capacity in 2036 AM Peak.

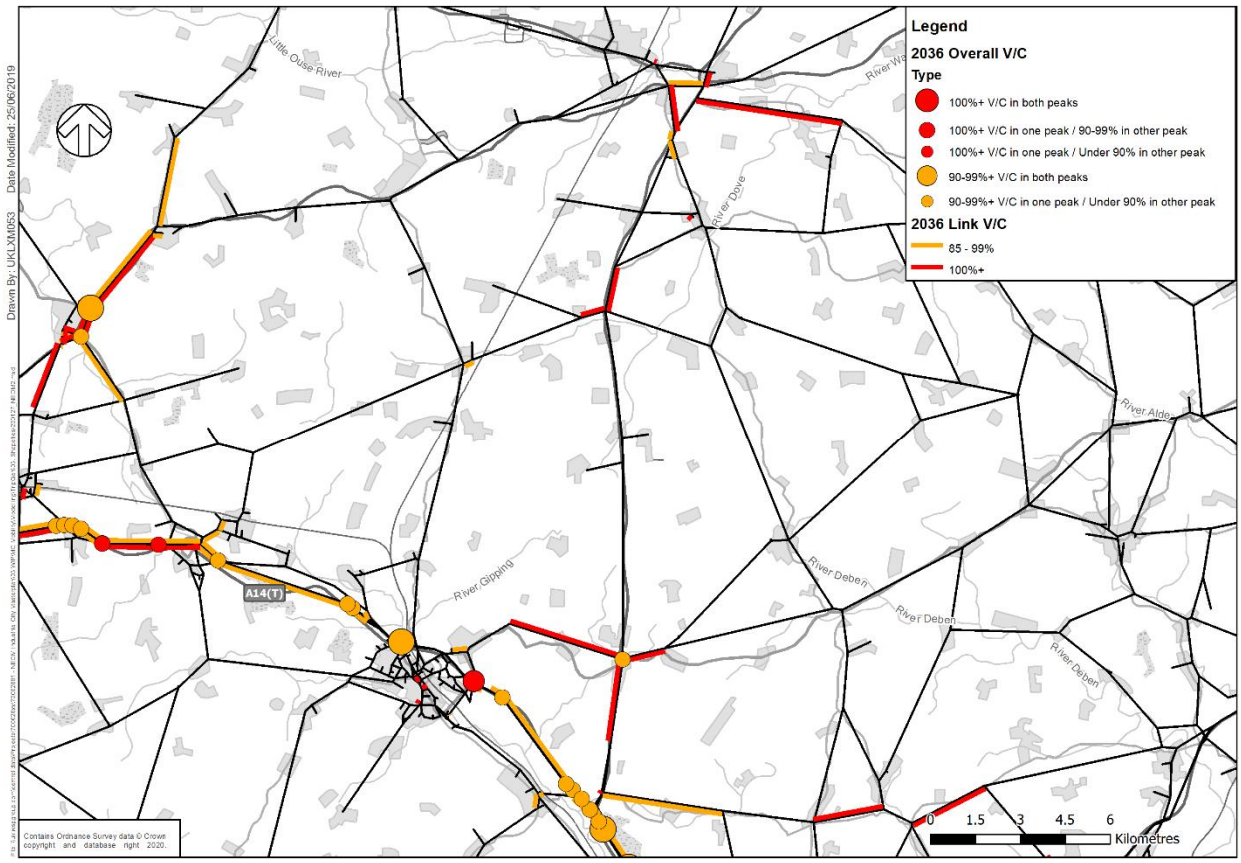
3.9.4. Figure 12 shows the V/C performance along the A140 corridor in 2026.

Figure 12 – A140 Corridor – 2026 Links and Junctions with V/C 85%+ - With Adjustment



3.9.5. Figure 13 shows the V/C performance along the A140 corridor in 2036.

Figure 13 – A140 Corridor – 2036 Links and Junctions with V/C 85%+ - With Adjustment



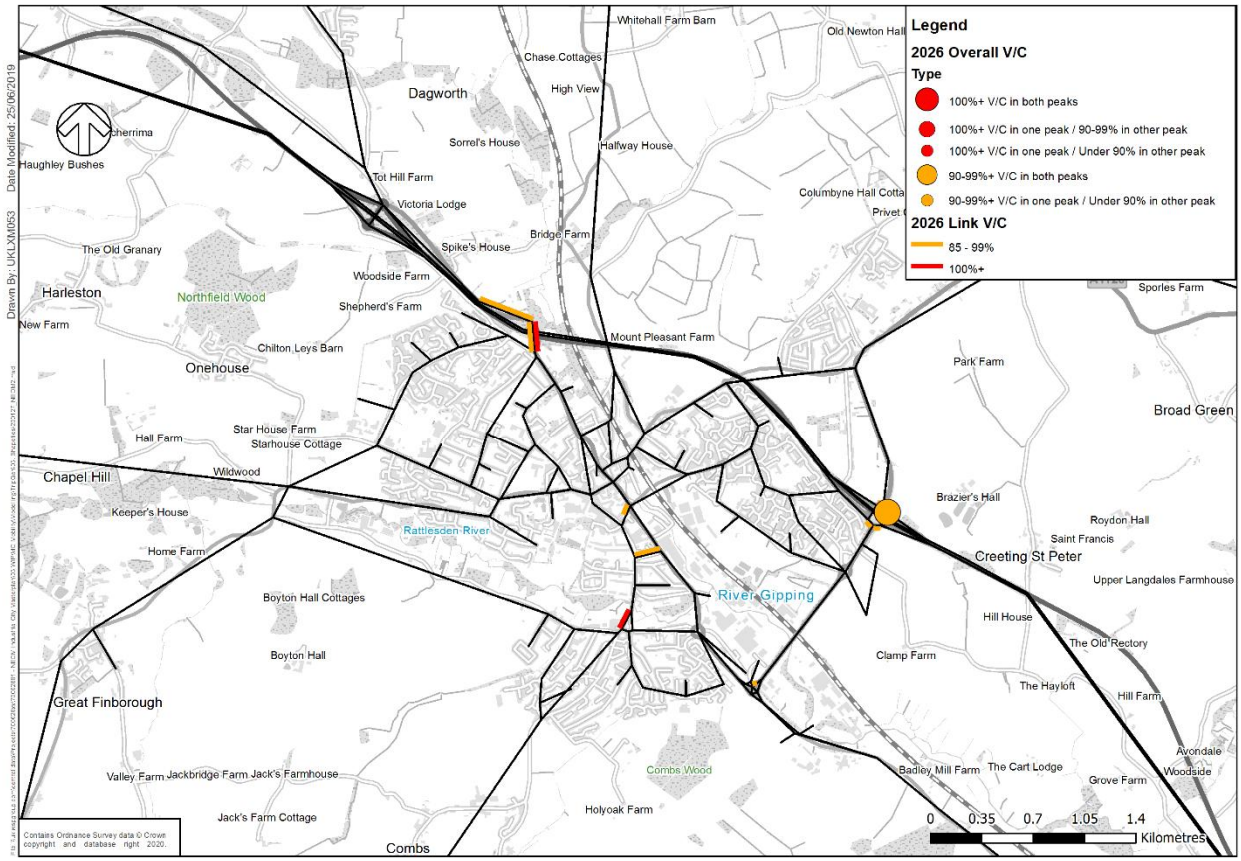
STOWMARKET

3.9.6. There is localised congestion within Stowmarket in the 2026/36 AM and PM peaks. The following locations are flagged:

- The north approach of the B1115 / Combs Lane junction is approaching capacity in the 2036 AM peak.
- The A1308 Tot Hill shows congestion in both 2026 and 2036, with the A1308 approach to the roundabout with A1308 / Bury Road reaching capacity.
- The northern circulatory at A14 Junction 50 at the prior to the eastbound on-slip is close to capacity in 2026 AM (V/C 98%), and at capacity by 2036 AM (V/C 100%).

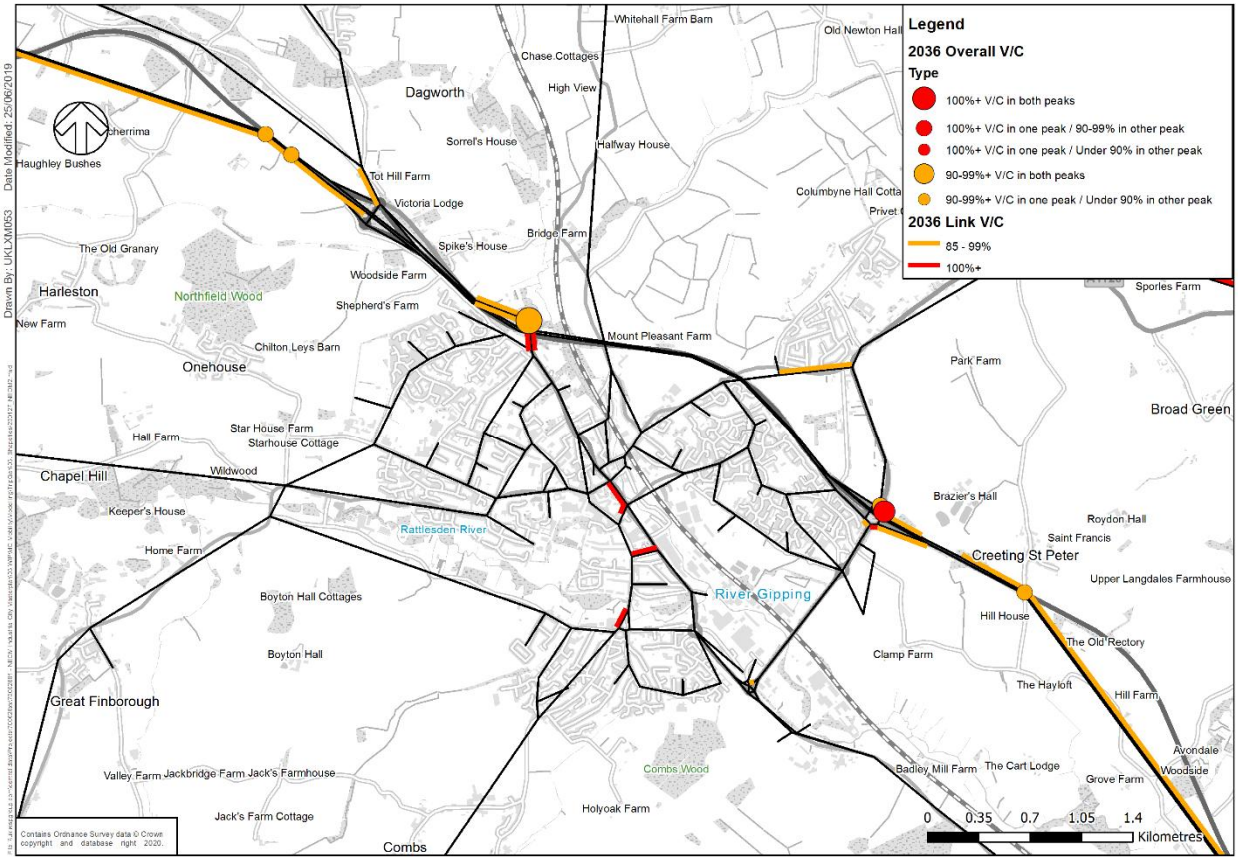
3.9.7. Figure 14 presents the V/C performance in and around Stowmarket in 2026.

Figure 14 – Stowmarket – 2026 Links and Junctions with V/C 85%+ - With Adjustment



3.9.8. Figure 15 shows the V/C performance in and around Stowmarket in 2036.

Figure 15 – Stowmarket – 2036 Links and Junctions with V/C 85%+ - With Adjustment



GREAT BLAKENHAM / CLAYDON

3.9.9. The base year and forecast model networks in the SCTM have been significantly enhanced in terms of their level of detail in the Great Blakenham and Claydon area. This was undertaken to support the analysis of the sensitivity test related to the recently consented SnOasis development which is discussed in Appendix C. Increased detail has also been added in relation to the junction arrangements associated with the Port One business park extension and restrictions which the access arrangements place on turning movements, including restrictions to HGV movements, on Bramford Road.

3.9.10. By 2026, capacity issues are shown at the following locations in the PM peak:

- Station Road approach to Ipswich Road / Norwich Road junction reaches 93% V/C
- Northern Bramford Road approach to B1113 signals reaches 85% V/C

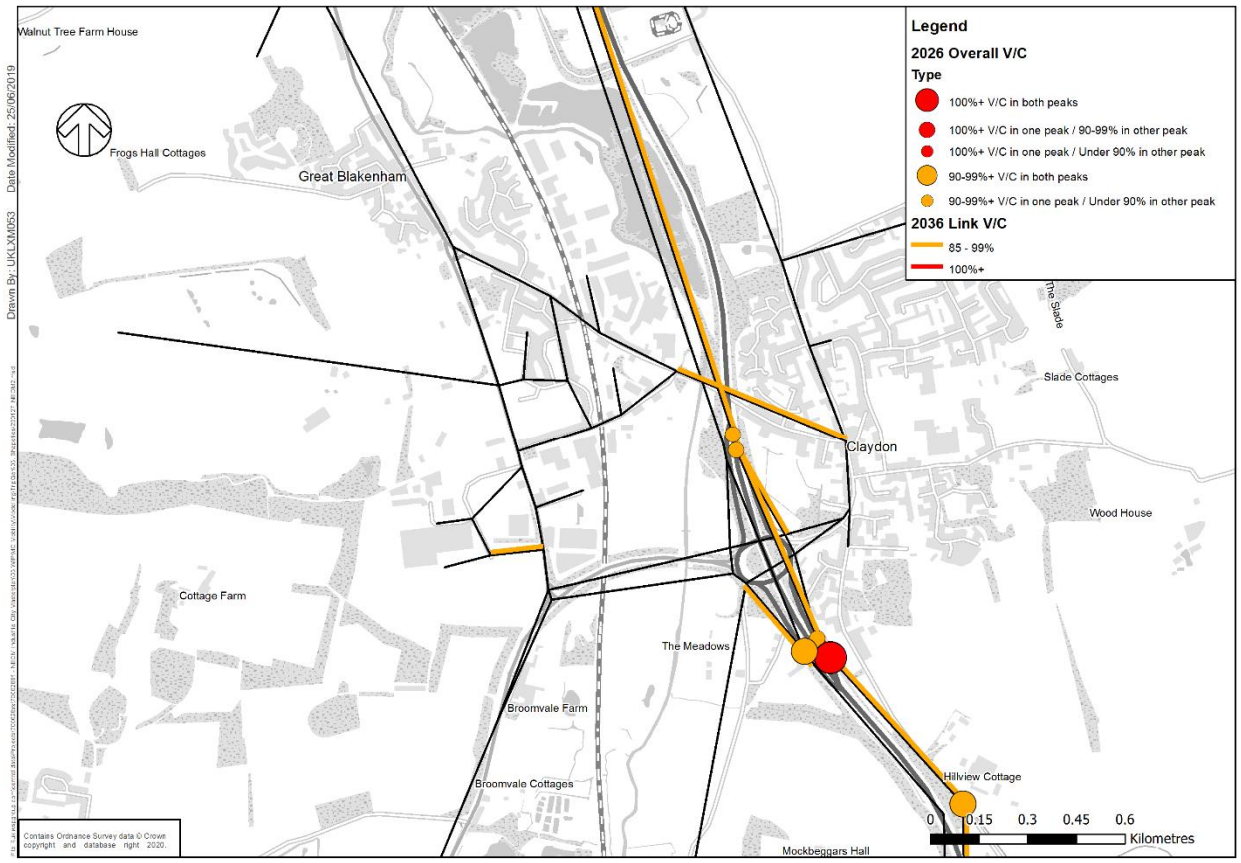
3.9.11. By 2036, capacity issues are shown at the following locations in both the AM peak and PM peal:

- Station Road approach to Ipswich Road / Norwich Road junction is over capacity in the PM peak (V/C 108%) and approaching capacity in the AM peak (V/C 89%)

- Northern Bramford Road approach to B1113 signals reaches capacity in the PM peak (V/C 100%) and approaches capacity in the AM peak (V/C 89%).
- In the AM peak, both A14 off-slips at A14 Junction 52 (Claydon) are over capacity in the AM peak, with the A14 eastbound / southbound off-slip also over capacity in the PM peak.
- In the PM peak, the Addison Way and new Port One business park accesses onto Bramford Road are over capacity for the minor arms from the business park trying to access onto Bramford Road

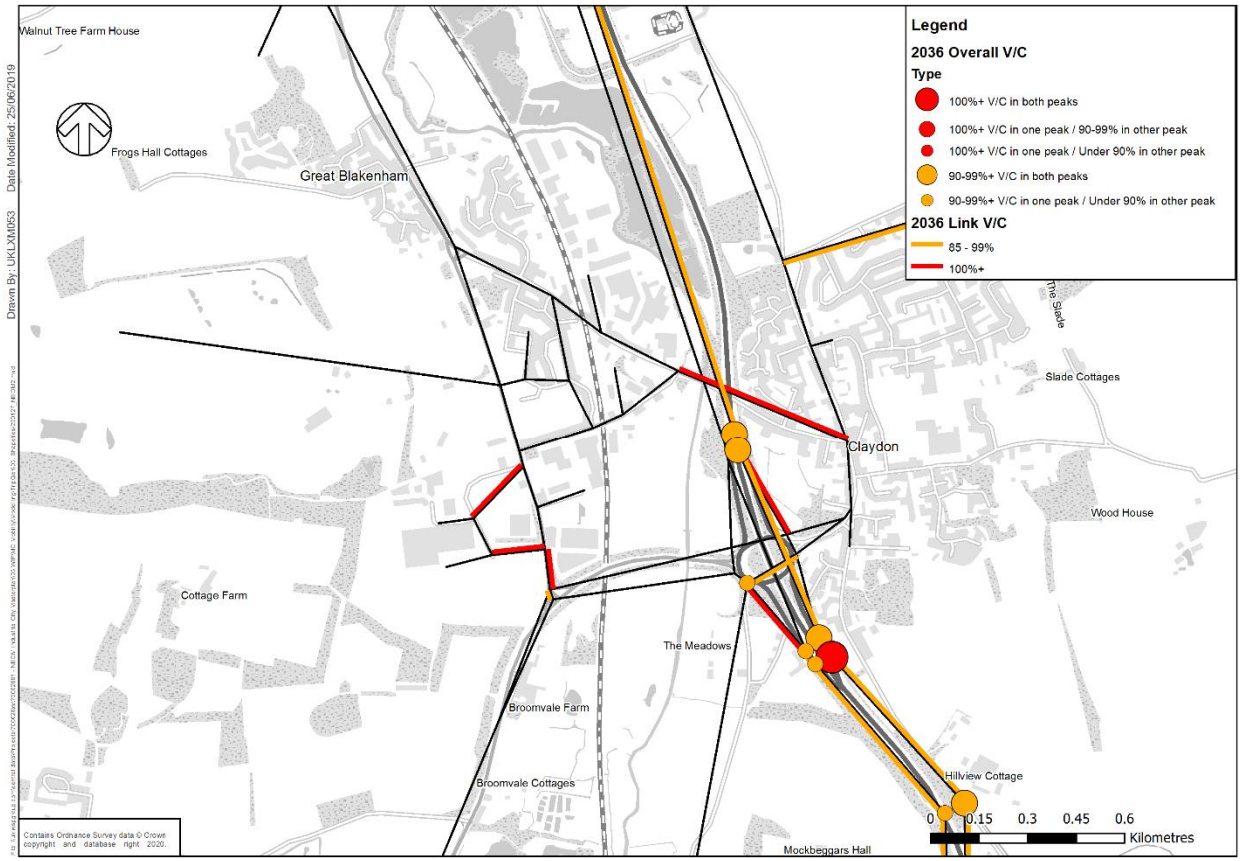
3.9.12. Figure 16 demonstrates the V/C performance around Great Blakenham and Claydon in 2026.

Figure 16 – Great Blakenham / Claydon– 2026 Links and Junctions with V/C 85%+ - With Adjustment



3.9.13. Figure 17 demonstrates the V/C performance around Great Blakenham and Claydon in 2036.

Figure 17 – Great Blakenham / Claydon– 2036 Links and Junctions with V/C 85%+ - With Adjustment



3.10 WEST MID SUFFOLK / EAST OF BURY ST EDMUNDS RESULTS SUMMARY

A143

3.10.1. This section focuses on congestion issues shown in the western rural area of Mid Suffolk near to the A14 and east of Bury St Edmunds.

3.10.2. Congestion is shown around Ixworth for the following locations

- A143 Stanton Road / A1088 Thetford Road has over capacity approaches in 2026 and 2036
- A143 / A1088 Stow Lane / Stow Road becomes over capacity in 2036, with the A143 southbound over capacity in the AM, whilst the A143 northbound is over capacity in the PM
- By 2036; Stow Rd, Bury Rd, Pakenham Rd access onto A143 is also over capacity in the PM

3.10.3. Congestion occurs on the A143 near Great Barton at the following locations:

- A143 / Mill Road shows capacity issues in the PM peak, being close to capacity in 2026 (98% V/C), becoming over capacity in 2036 (102% V/C)
- The above junction is affected by delays at the A143 / Thurston Road / Brand Road (Bunbury Arms) junctions. The western A143 arm of this junction shows the greatest stress being close to capacity in 2026 PM and 2036 AM (98% V/C), becoming over capacity (107% V/C) in the 2036 PM. The Thurston Road arm of this junction is over capacity in the 2036 AM (110% V/C), and approaching capacity in the 2036 PM (94% V/C)

THURSTON / WOOLPIT / ELMSWELL

3.10.4. Around Thurston, the following junctions are shown to experience congestion issues:

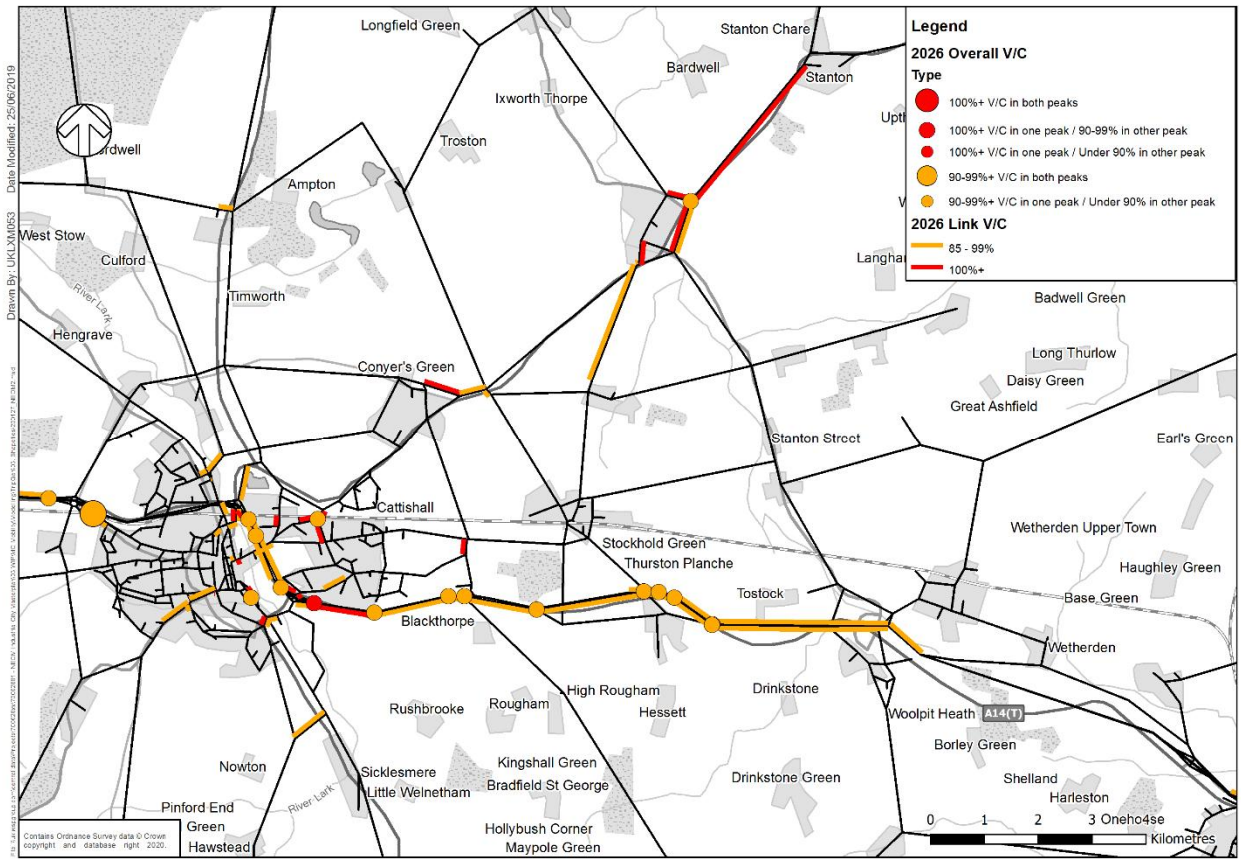
- Mount Road / Sow Lane / East Barton Road in 2036, with all arms of the junction over capacity (V/C 100%) in either the AM or PM
- Closer to the Thurston, the New Road / Mount Road to the south experiences delays with the northern approach at 101% V/C

3.10.5. Near Woolpit and Elmswell there are congestion issues as a result of the A14 westbound mainline being at capacity (V/C 100%) in the 2036 AM. These leads to problems for traffic at the following locations trying to access onto the A4:

- A14 westbound on-slip from The Street is over capacity with a V/C of 103%
- A14 / A1088 (Junction 47), the westbound on-slip is at capacity, with a V/C of 100%

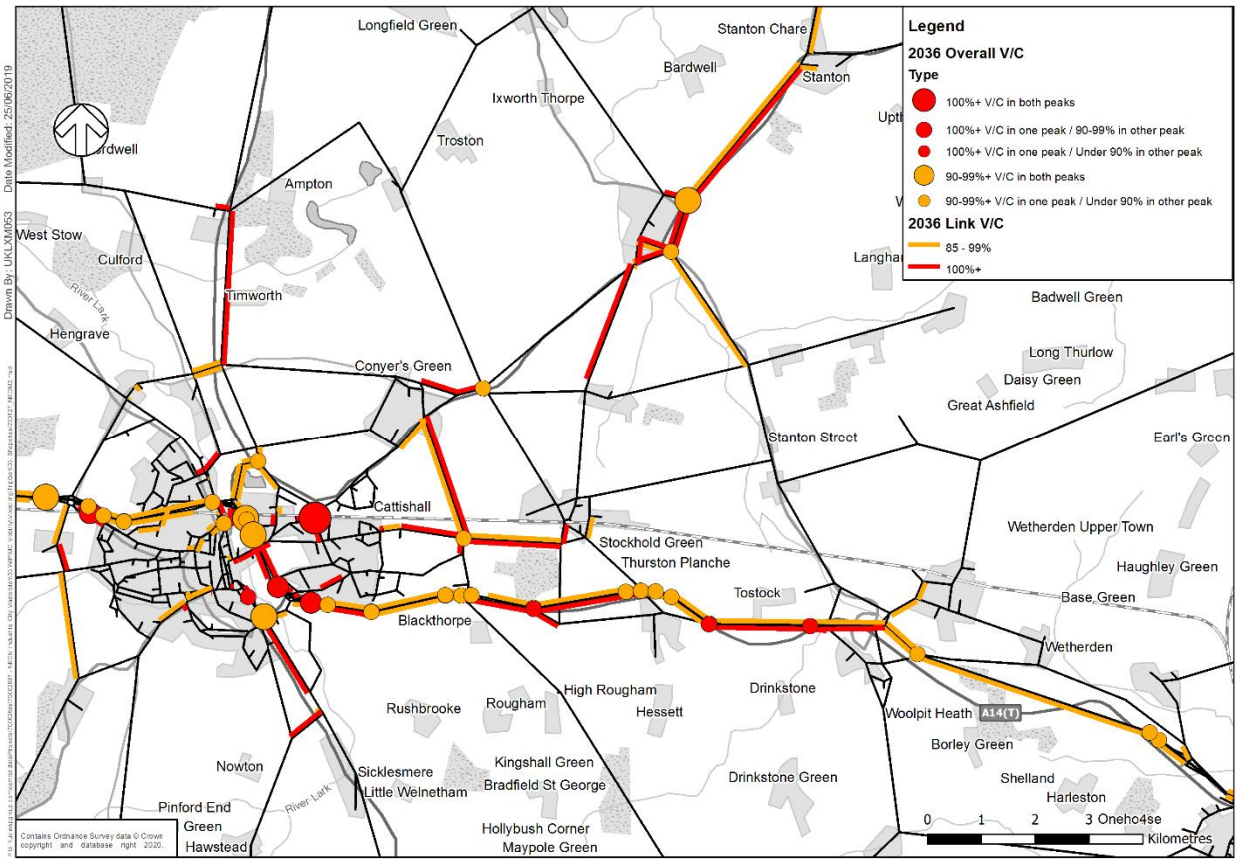
3.10.6. Figure 18 shows the V/C performance for the west of Mid Suffolk and area to the east of Bury St Edmunds in 2026.

Figure 18 – West Mid Suffolk / East of Bury St Edmunds – 2026 Links and Junctions with V/C 85%+ - With Adjustment



3.10.7. Figure 19 shows the V/C performance for the west of Mid Suffolk and area to the east of Bury St Edmunds in 2036.

Figure 19 – West Mid Suffolk / East of Bury St Edmunds – 2036 Links and Junctions with V/C 85%+ - With Adjustment



3.11 WEST SUFFOLK RESULTS SUMMARY

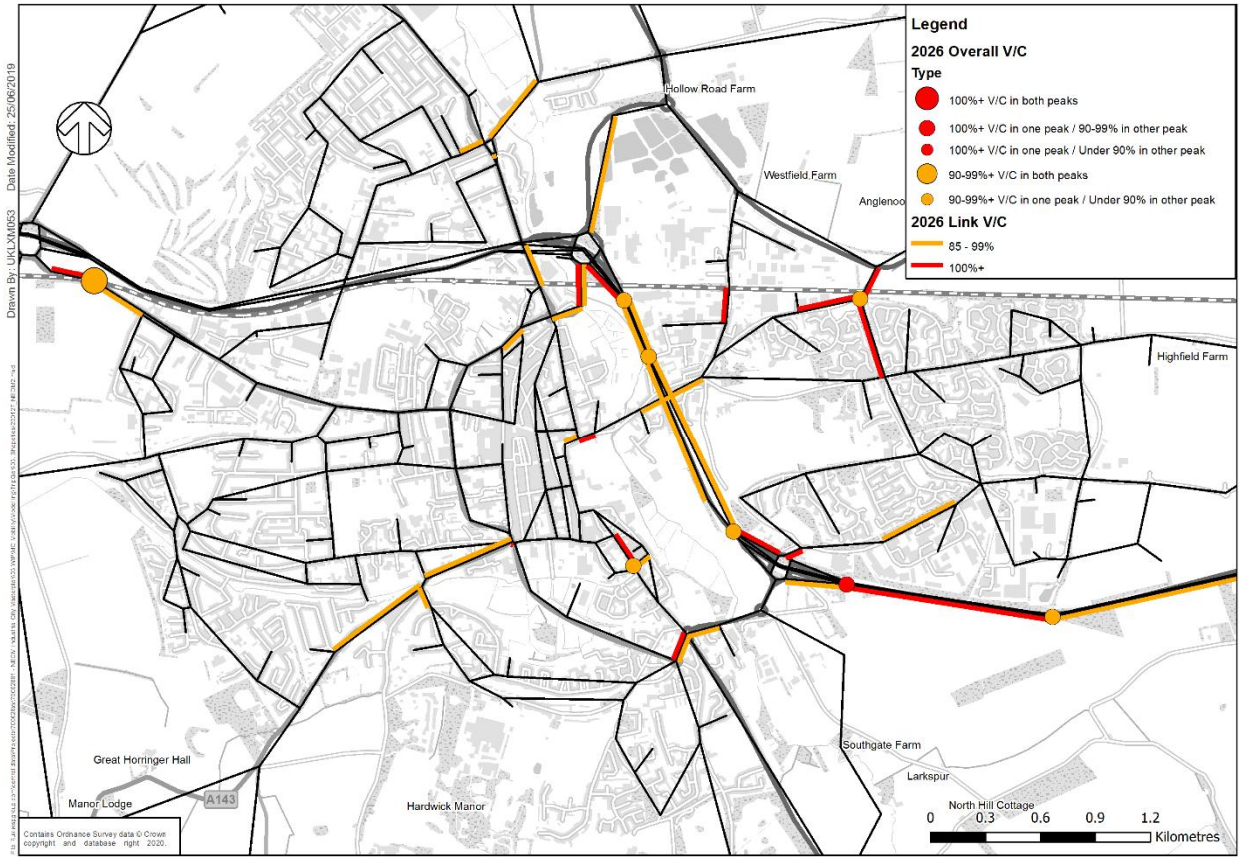
BURY ST EDMUNDS

3.11.1. The following junctions show significant congestion issues in and around Bury St Edmunds:

- There is significant congestion at Orttewell Road / Barton signals. This junction has arms which are over capacity in 2026, with very marked increases in delay occurring by 2036, including delays of over 10 minutes on the southern Orttewell Road arm in 2036 PM
- The Compiegne Way approach to A14 Junction 43 is over capacity in both 2026 and 2036 in the PM peak
- A143 / A1302 Southgate Green roundabout shows A1302 approach is over capacity 2026 and 2036. In the 2036 AM, the A134 Sicklesmere Road roundabout also over-capacity by 2036
- Southgate Street / Maynewater Lane, approaching capacity in 2026 and over capacity by 2036
- Compiegne Way / A1302 / A1101 / Northgate Street is approaching capacity overall by 2036, with the Compiegne Way approach over capacity
- A1302 Newmarket Road, approaching capacity in 2026 and over capacity in 2036.

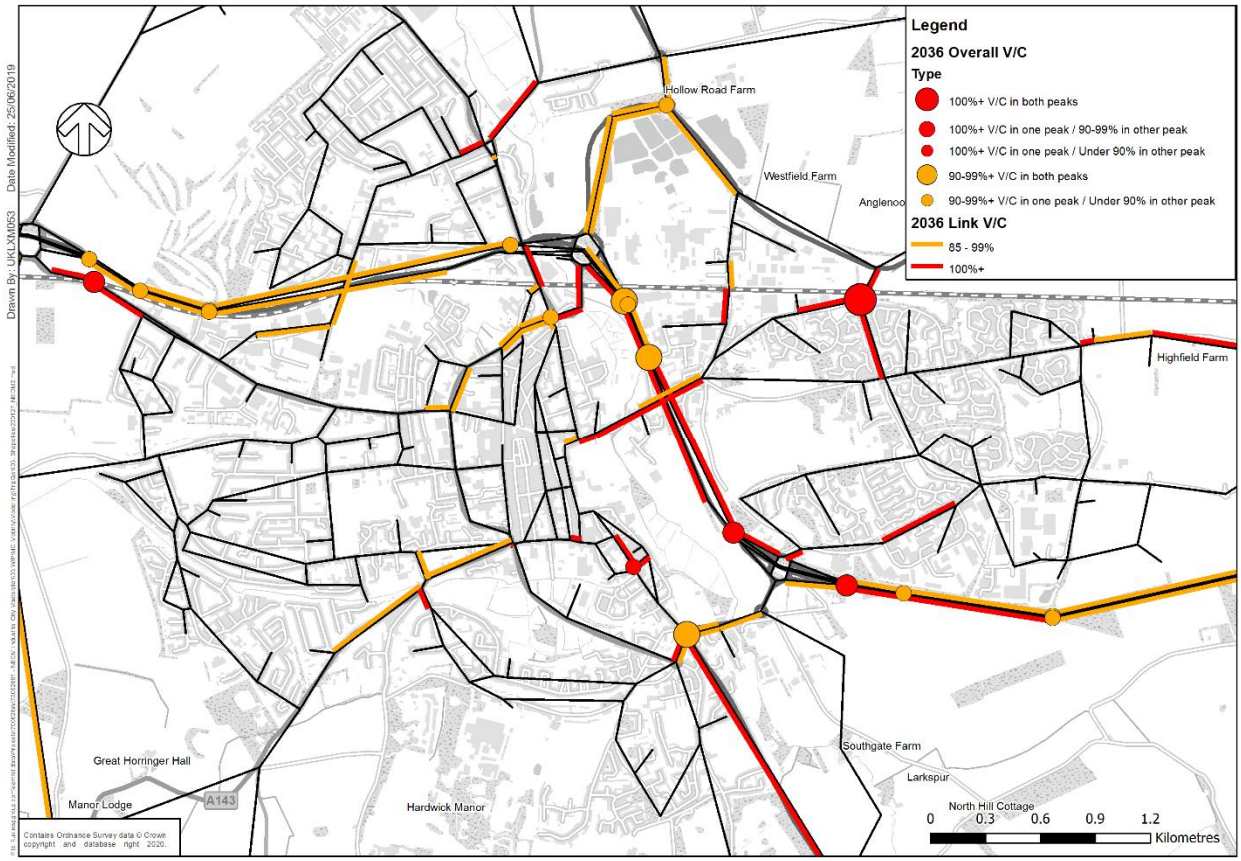
3.11.2. Figure 20 shows the V/C performance in Bury St Edmunds in 2026.

Figure 20 – Bury St Edmunds – 2026 Links and Junctions with V/C 85%+ - With Adjustment



3.11.3. Figure 21 shows the V/C performance in Bury St Edmunds in 2036.

Figure 21 – Bury St Edmunds – 2036 Links and Junctions with V/C 85%+ - With Adjustment



3.12 IPSWICH RESULTS SUMMARY

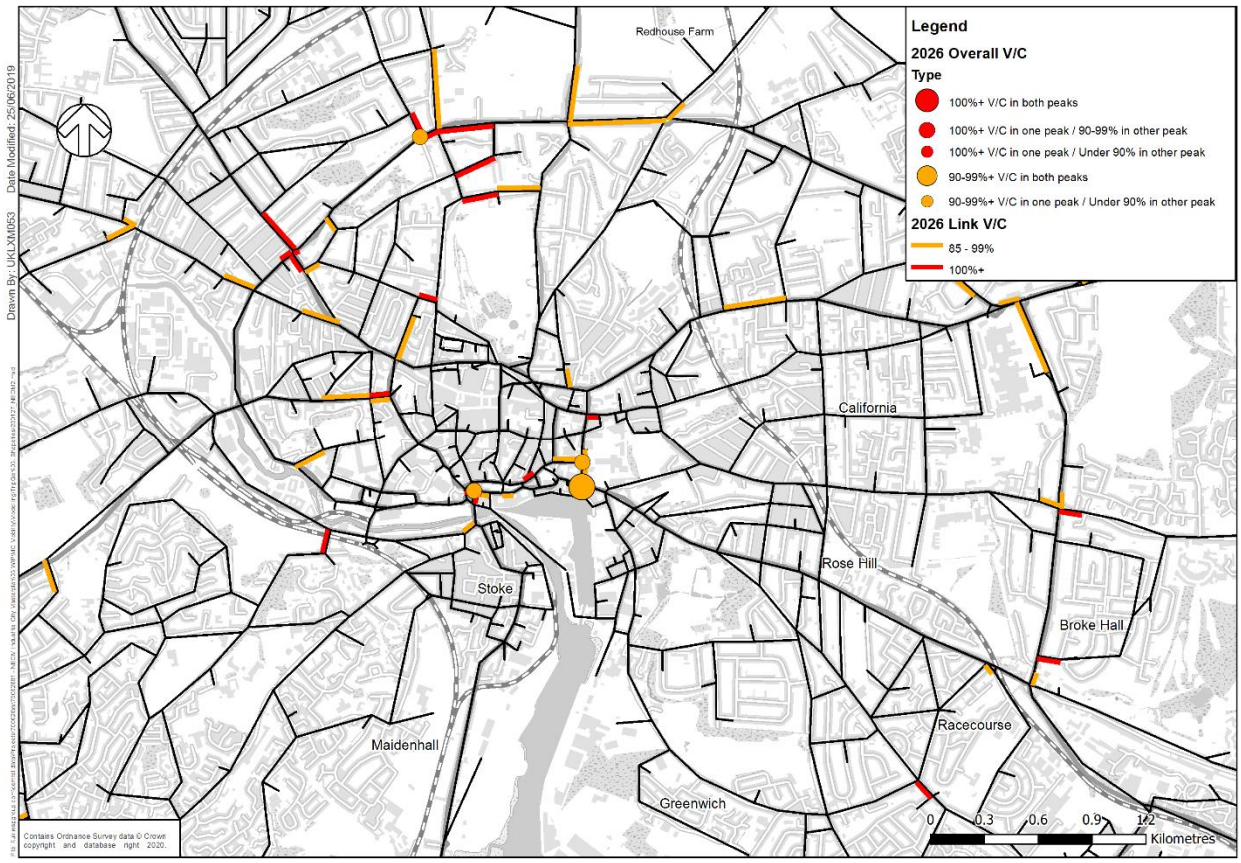
3.12.1. Several of the A1214 corridor junctions operate with an overall V/C greater than 85%.

- A1214 / Dale Hill Lane – approaching capacity in AM/PM peaks in 2036
- A1214 / Henley Road –approaching capacity in 2036 AM/PM
- A1214 / Westerfield Road – approaching capacity in 2036 AM/PM peaks
- A1214 / Tuddenham Road – approaching capacity in AM peak in 2036
- A1214 / Rushmere Road – approaching capacity 2036 AM/PM peaks

3.12.2. V/C results show congestion in the AM and PM peak on Key Street/College St and St Helens Street / Old Foundry Road / Crown Street corridors in Ipswich town centre.

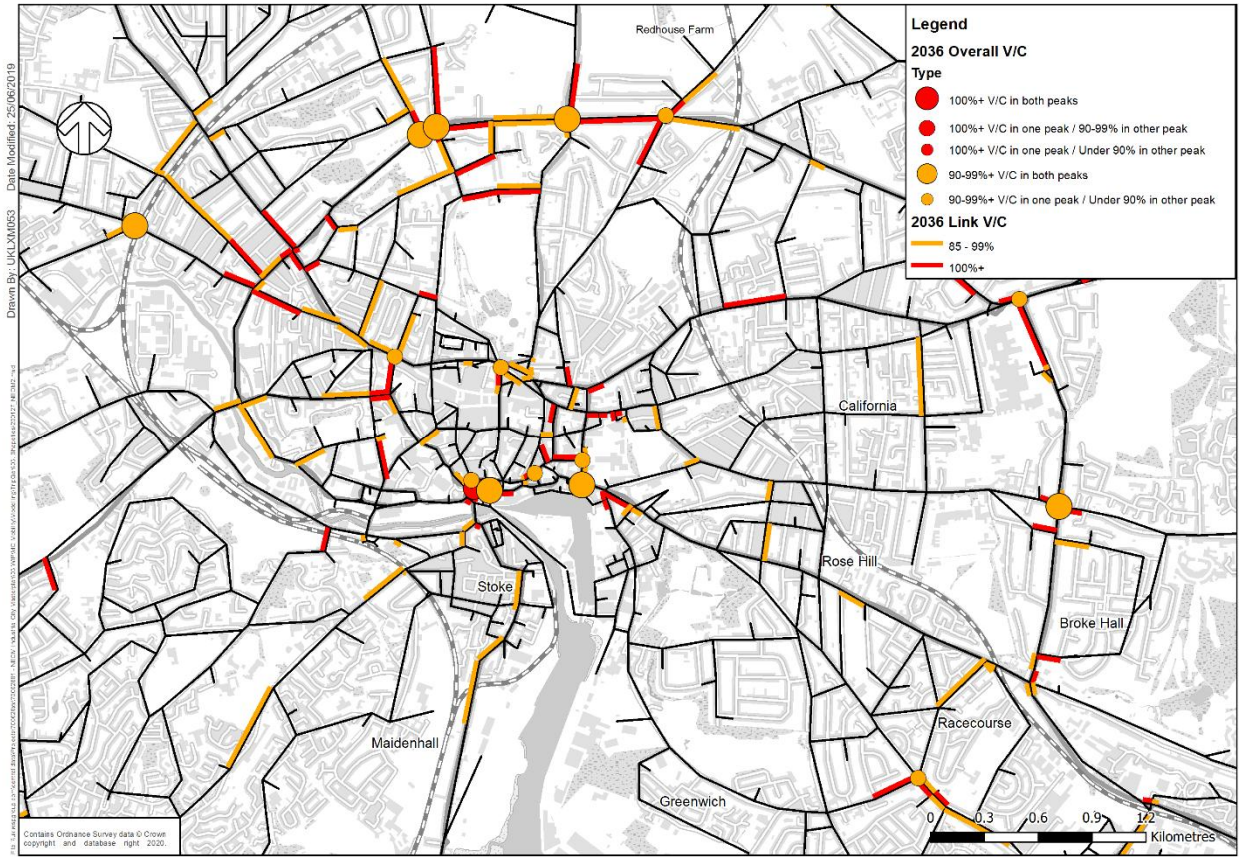
3.12.3. shows the overall junction V/C and link-based V/C above 85% within Ipswich in 2026.

Figure 22 – Ipswich – 2026 Links and Junctions with V/C 85%+ - With Adjustment



3.12.4. shows the overall junction V/C and link-based V/C above 85% within Ipswich in 2036.

Figure 23 – Ipswich – 2036 Links and Junctions with V/C 85%+ - With Adjustment



3.12.5. The 2036 modelling results with the demand reduction demonstrate that a total of five junctions (as per Table 17) are no longer flagged as having V/C issues. However, numerous junctions around the A1214 are shown to have capacity issues as per the previous results report.

3.13 SUFFOLK COASTAL RESULTS SUMMARY

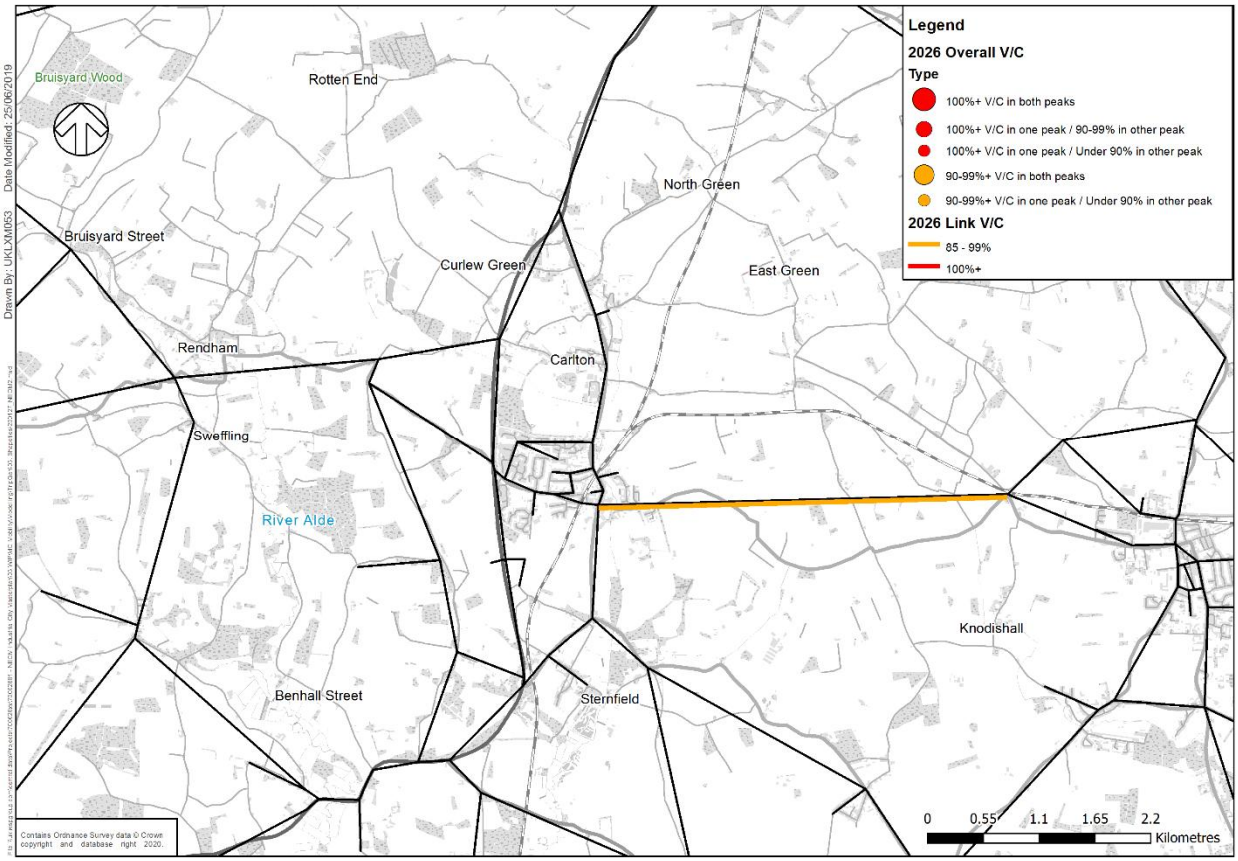
SAXMUNDHAM

3.13.1. Junctions near Saxmundham operate with an overall V/C less than 85%. However, individual movements operate nearing or at capacity

- B1121 / Chantry Road
  - AM Peak: East approach nearing capacity in 2026, over capacity in 2036
  - PM Peak, East and west approaches nearing capacity in 2026/2036

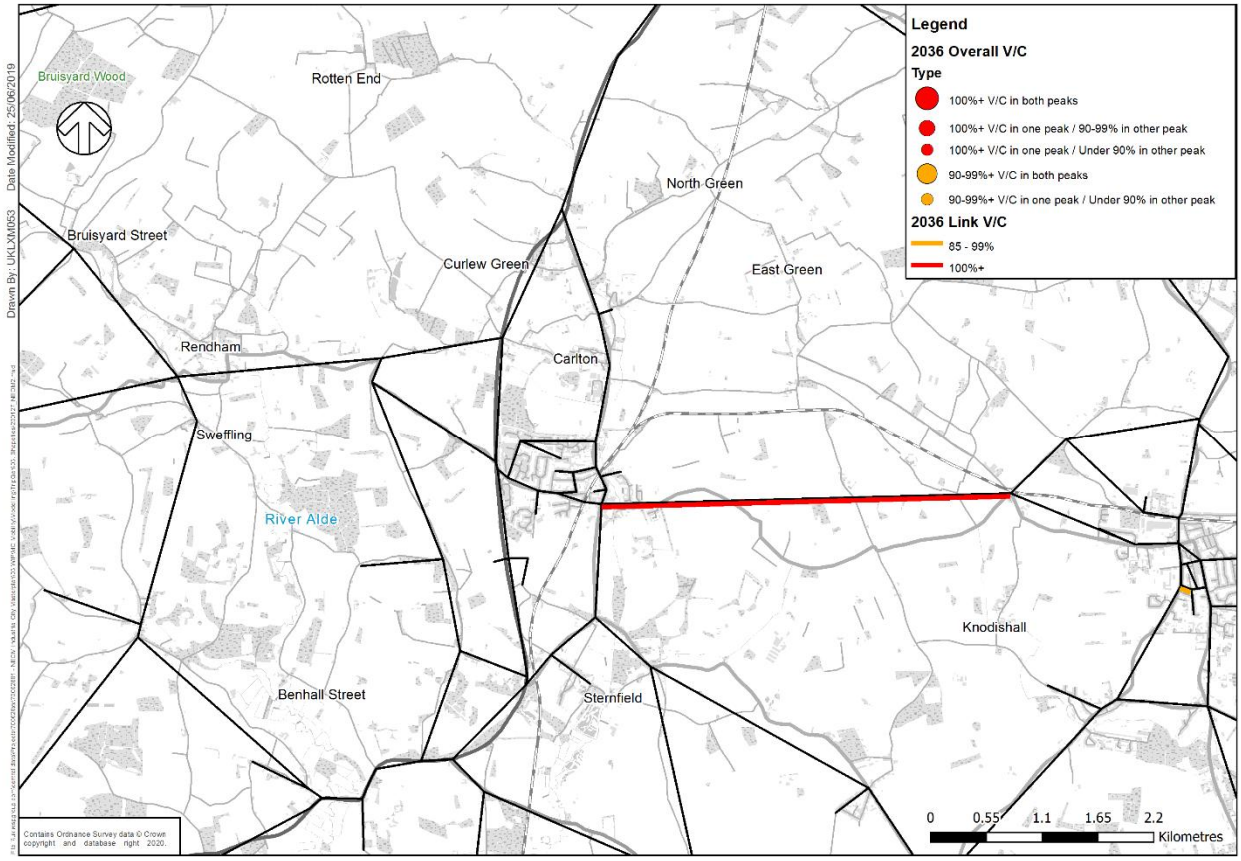
3.13.2. Figure 24 shows the B1121 / Chantry Road link approaching capacity within Saxmundham in 2026.

Figure 24 – Saxmundham – 2026 Links and Junctions with V/C 85%+ - With Adjustment



3.13.3. Figure 25 shows the B1121 / Chantry Road at capacity within Saxmundham in 2036

Figure 25 – Saxmundham – 2036 Links and Junctions with V/C 85%+ - With Adjustment



3.13.4. The 2036 modelling results with the demand reduction show the same issues in Saxmundham as those highlighted in the previous ISPA modelling reports.

WOODBRIDGE / MELTON

3.13.5. Junctions near Melton operate with an overall V/C less than 85%. However, individual movements operate nearing at or capacity

- B1083 / A1152 (Location 1 in Figure 26/Figure 27)
  - AM Peak south approach nearing capacity in 2036
  - PM Peak north approach nearing capacity in 2026/2036
- Melton Road / A1152 (Location 2 in Figure 26/Figure 27)
  - AM Peak: North approach over capacity in 2026/2036, east approach nearing capacity in 2026, over capacity in 2036
  - PM Peak, North approach over capacity in 2026/2036

3.13.6. Several of the A12 corridor junctions, west of Woodbridge, operate with an overall V/C greater than 85%.

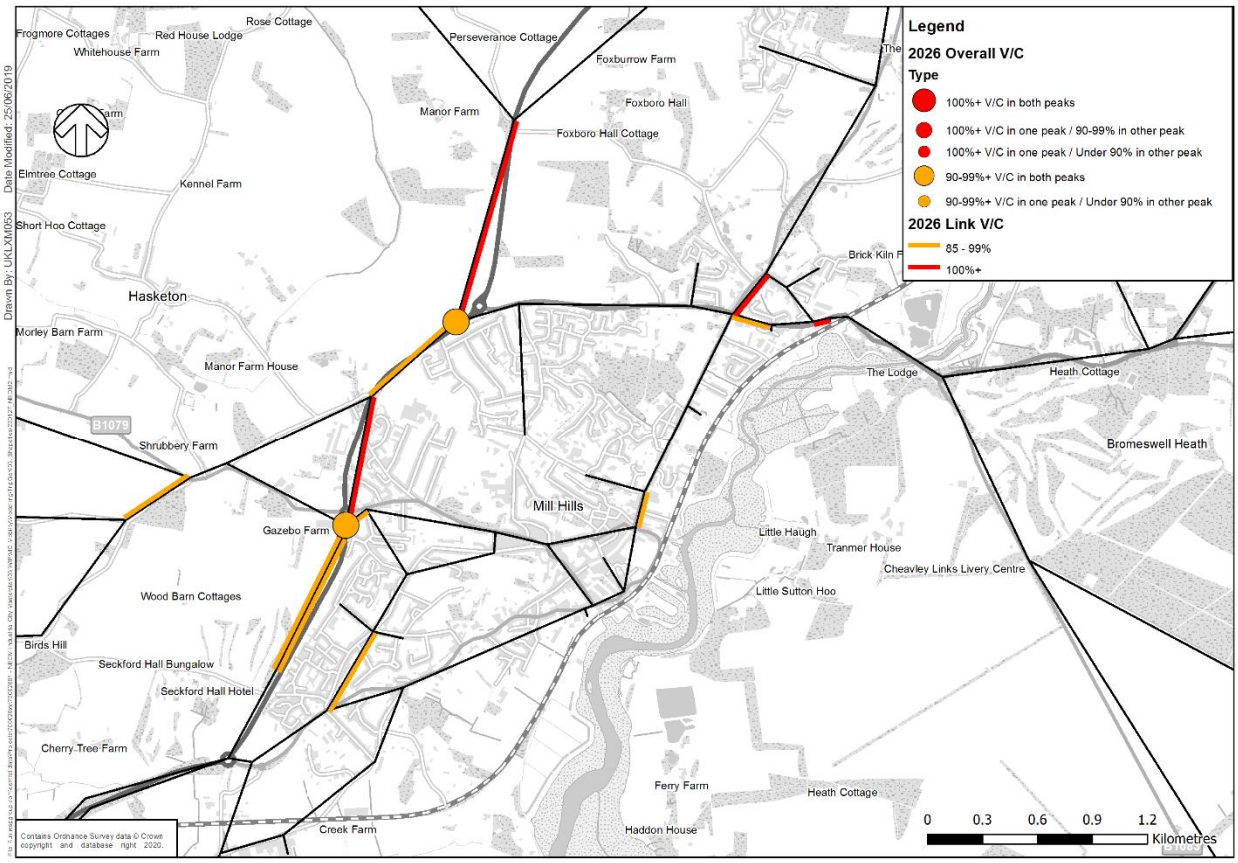
- A12 / A1152 – approaching capacity in AM/PM peaks in 2026/2036 (Location 3 in Figure 26/Figure 27)
- A12 / Grundisburgh Road – approaching capacity in AM/PM peaks in 2026/2036 (Location 4 in Figure 26/Figure 27)

3.13.7. Link V/C ratios show that on the A12 corridor;

- AM peak,
  - the A12/Wood Lane junction is over capacity southbound in 2026 and 2036, and approaching capacity northbound in 2036
  - The A12/Manor Road junction is approaching capacity eastbound in 2026/2036
  - the A12 / Grundisburgh Road junction is over capacity southbound at in 2026 and 2036, and approaching capacity northbound and eastbound in 2036
  - The A12 between Grundisburgh Road and the A1348 is approaching capacity in both directions in 2026 and 2036
  - The A12 is approaching capacity on the eastbound approaches to the B1348 in 2026/2036, and on the southbound approach in 2036
  - the Old Barrack Road / Ipswich Road north approach is nearing capacity in 2036
- PM peak,
  - the A12 is approaching capacity southbound at Wood Lane in 2036
  - Wood Lane is approaching capacity westbound at the A12 in 2036
  - the A12 is approaching capacity northbound at Wood Lane in 2026 and 2036
  - Manor Road eastbound is approaching capacity in 2026
  - the A12 at Grundisburgh Road is over capacity northbound in 2026 and 2036, approaching capacity southbound in 2026 and 2036, and approaching capacity westbound in 2026, and exceeding capacity westbound in 2036
  - The A12 between Grundisburgh Road and the A1348 is approaching capacity in both directions in 2026 and 2036, exceeding capacity northbound in 2036
  - The A12 is approaching capacity on the eastbound approaches to the B1348 in 2026/2036
  - the Old Barrack Road / Ipswich Road north approach is over capacity in 2026 and 2036

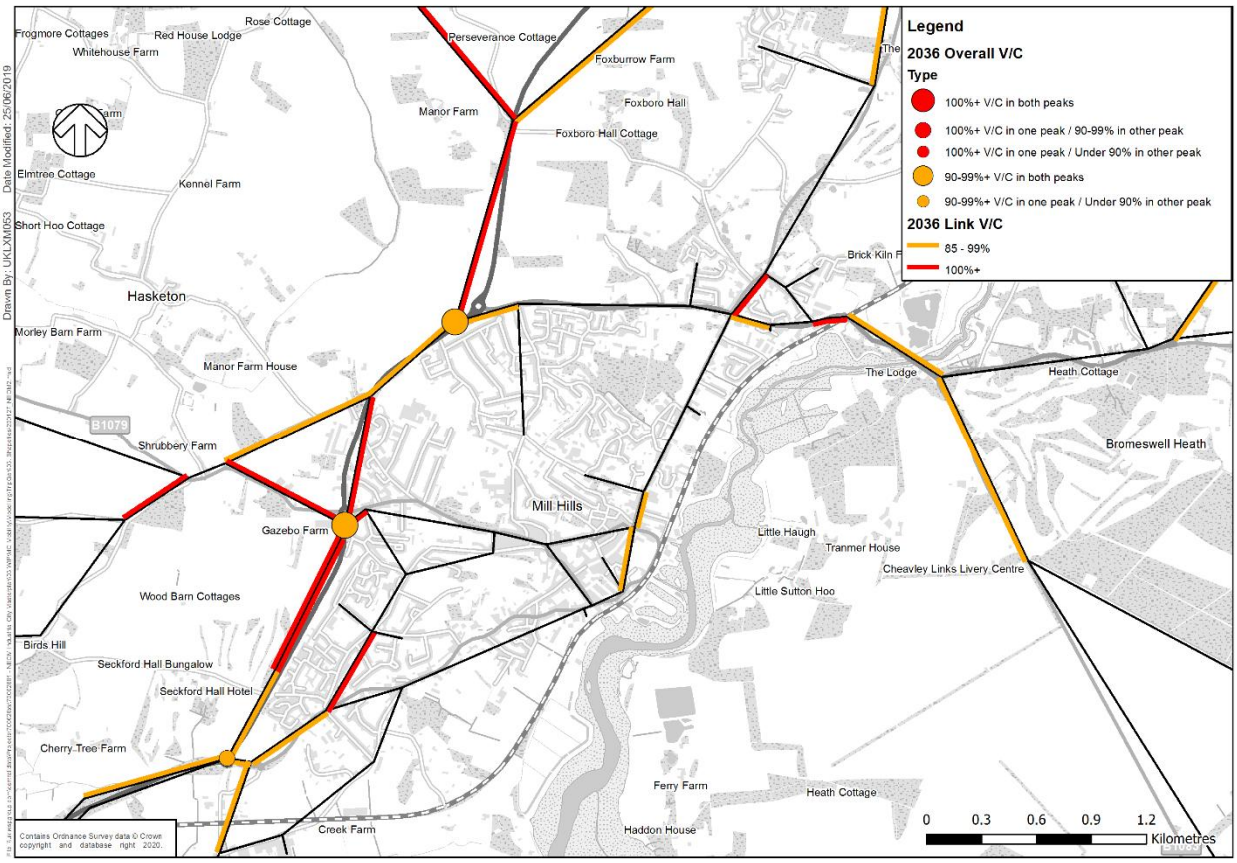
3.13.8. Figure 26 presents the overall junction and link-based V/C for both Woodbridge and Melton in 2026.

Figure 26 – Woodbridge & Melton – 2026 Links and Junctions with V/C 85%+ - With Adjustment



3.13.9. Figure 27 presents the overall junction and link-based V/C for both Woodbridge and Melton in 2036

Figure 27 – Woodbridge & Melton – 2036 Links and Junctions with V/C 85%+ - With Adjustment



3.13.10. The 2036 modelling results with the demand reduction show that despite the demand reductions which have been applied the Melton Crossroads junction continues to have approaches which are over capacity, consistent with previous results reports.

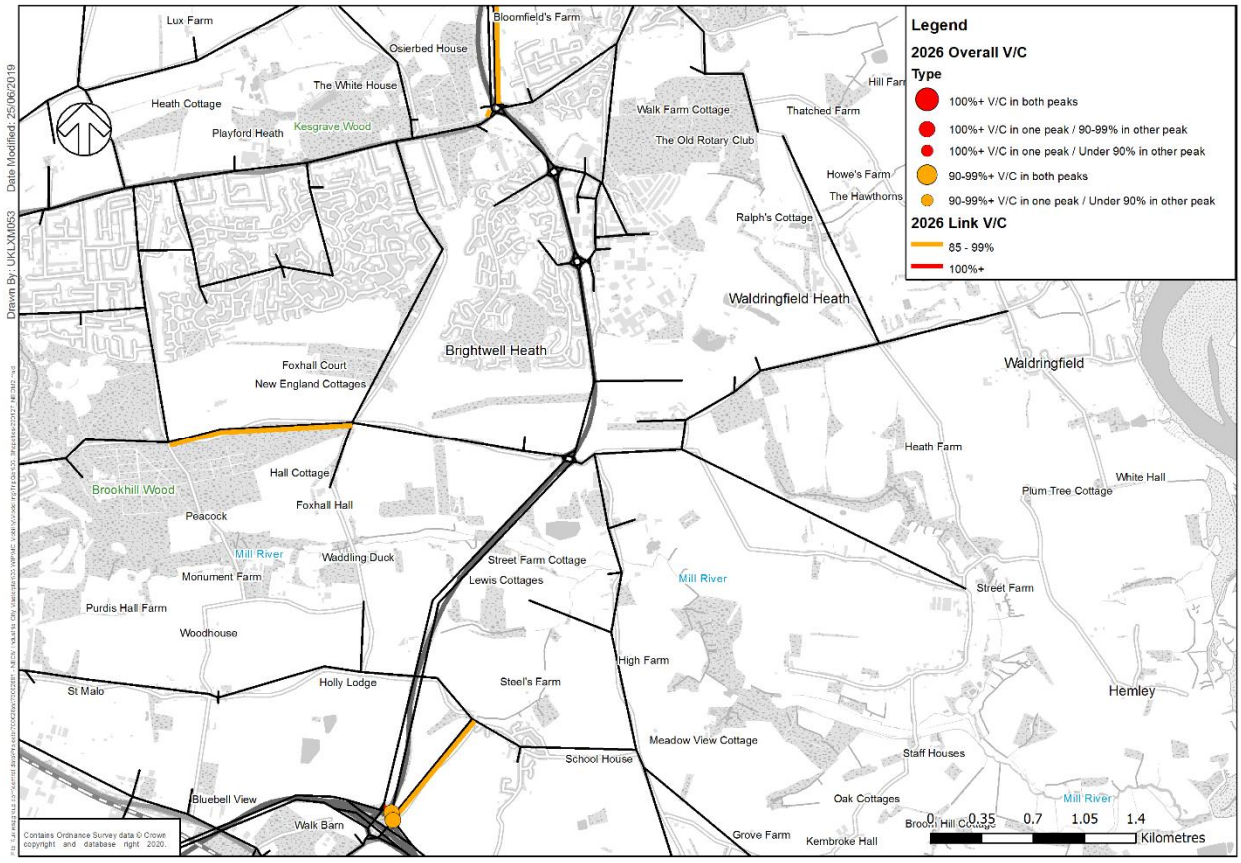
3.13.11. In terms of the A12, the demand adjustments have not alleviated the capacity issues shown on the A12 corridor to the west of Woodbridge.

A12 EAST OF IPSWICH

3.13.12. Analysis of the A12 East of Ipswich demonstrates all junctions and links operate within capacity in 2026, as shown in Figure 28. This demonstrates the transport mitigation associated with Brightwell Lakes can accommodate the 2026 Local Plan growth. The following locations are show the highest VC values:

- AM peak
  - A1214 Main Road approach to the A12 / Main Road roundabout reaches 88% V/C
- PM peak
  - A12 southbound approach to the A12 / Main Road roundabout reaches 89%-90% V/C in both peaks

Figure 28 – A12 East of Ipswich – 2026 Links and Junctions with V/C 85%+ - With Adjustment

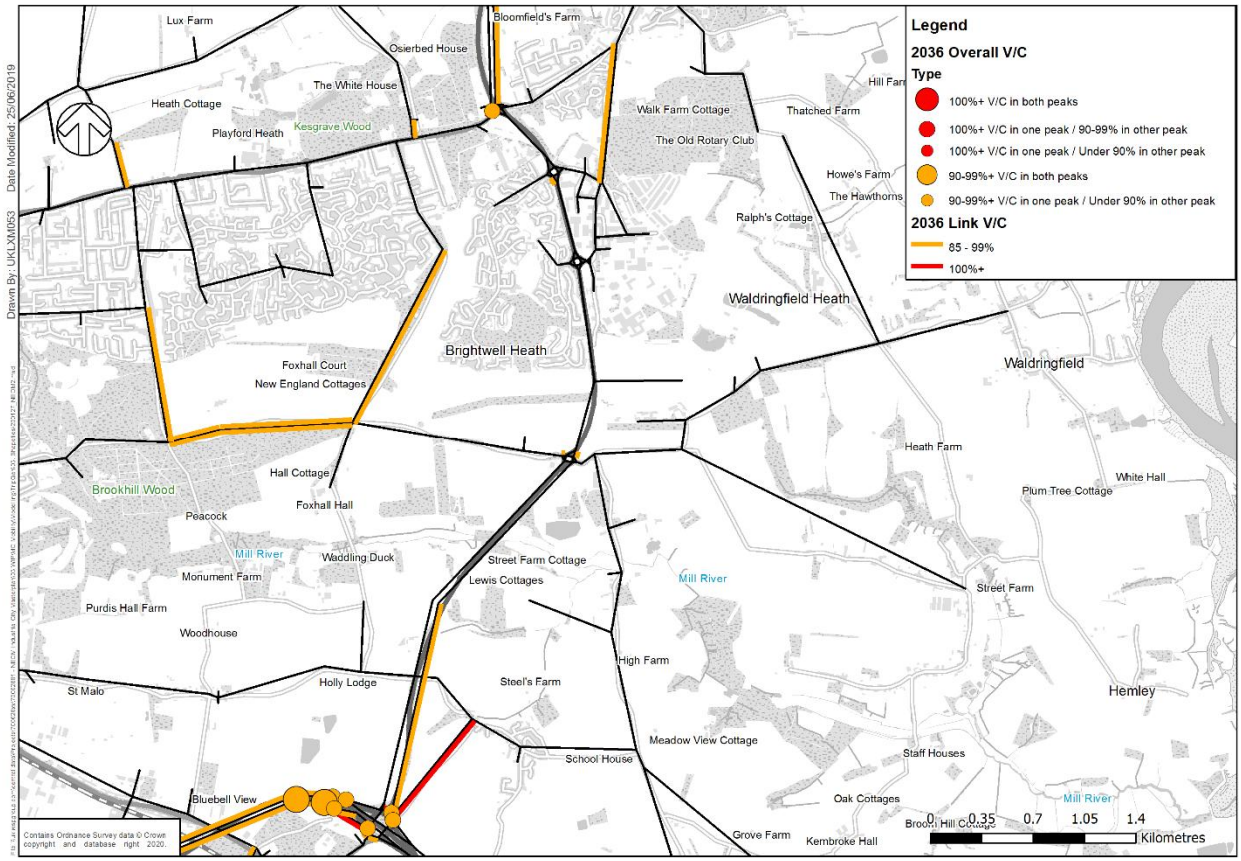


3.13.13.

3.13.14. Figure 29 shows the V/C performance around the A12 East of Ipswich corridor for 2036. The following junction approaches have capacity issues:

- AM peak
  - A1214 Main Road approach to the A12 / Main Road roundabout reaches 100% V/C
  - Foxhall Road approach to the A12 / Foxhall Road roundabout is close to capacity at 99% V/C
  - A12 north approach to A12 / Foxhall Road roundabout is at 93% V/C
  - A12 southbound approach to the A12 / Main Road roundabout reaches 93% V/C
- PM peak
  - A12 southbound approach to the A12 / Main Road roundabout reaches 94% V/C
  - A12 northbound approach to the A12 / Anson Road / Eagle Way roundabout reaches 89% V/C
  - A12 southbound approach to the A12 / Foxhall Road roundabout reaches 89% V/C

Figure 29 – A12 East of Ipswich – 2036 Links and Junctions with V/C 85%+ - With Adjustment

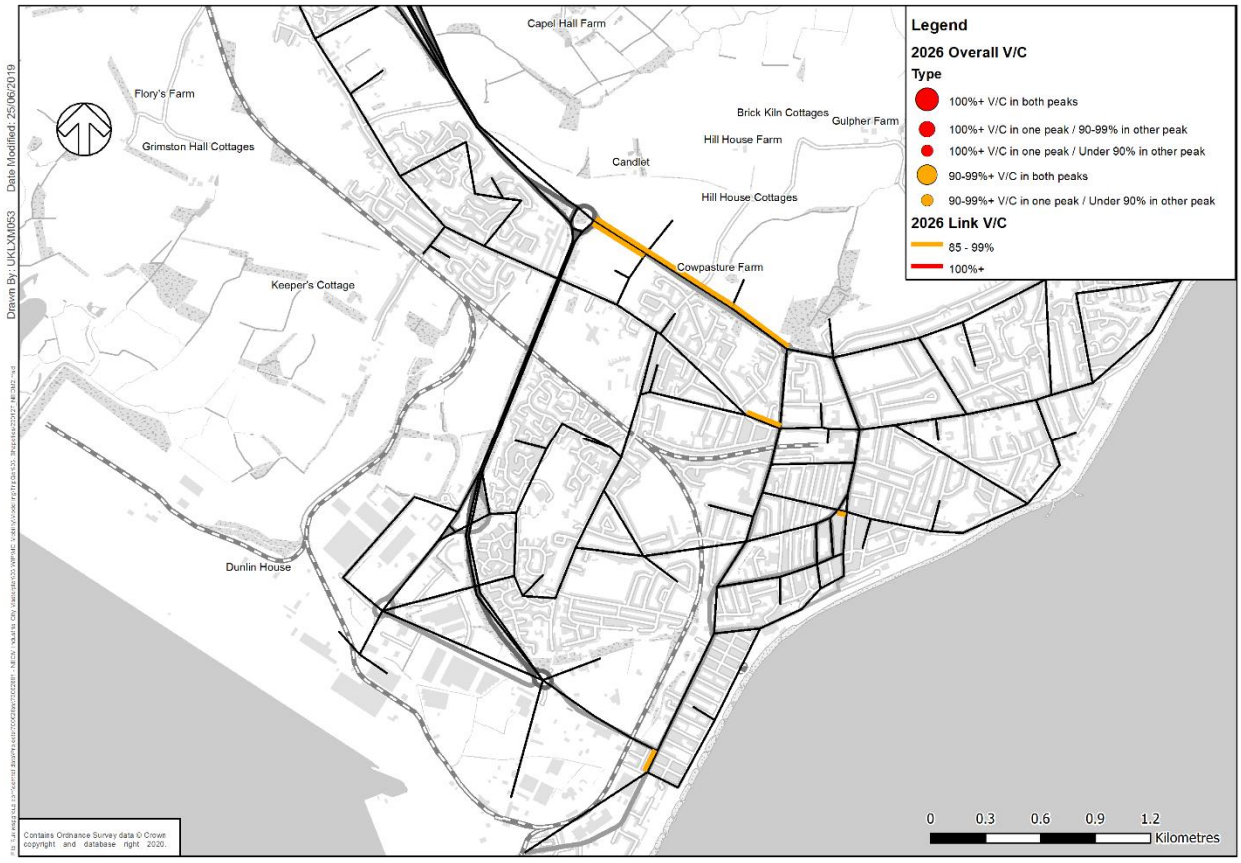


3.13.15. The 2036 modelling results with the demand reduction show a similar pattern of locations which show capacity issues compared to the previous results reports

FELIXSTOWE

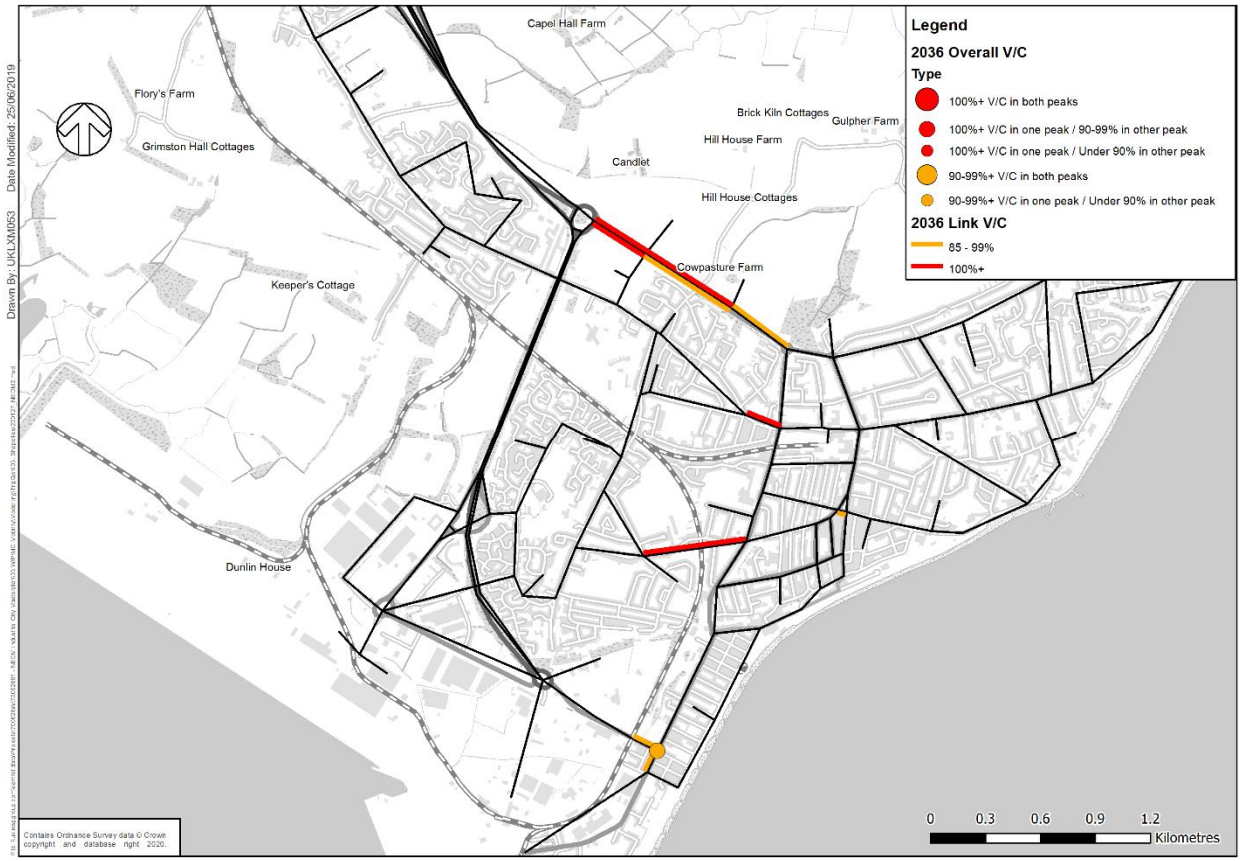
3.13.16. Analysis of link V/C ratios within Felixstowe indicate the A154 route (Candlet Road / Garrison Lane / Langer Road) is approaching or exceeding capacity in AM and PM peak periods in 2026/2036. Figure 30 presents the links approaching capacity within Felixstowe in 2026.

Figure 30 – Felixstowe – 2026 Links and Junctions with V/C 85%+ - With Adjustment



3.13.17. Figure 31 shows the over-capacity and close to capacity links within Felixstowe in 2036.

Figure 31 – Felixstowe – 2036 Links and Junctions with V/C 85%+ - With Adjustment

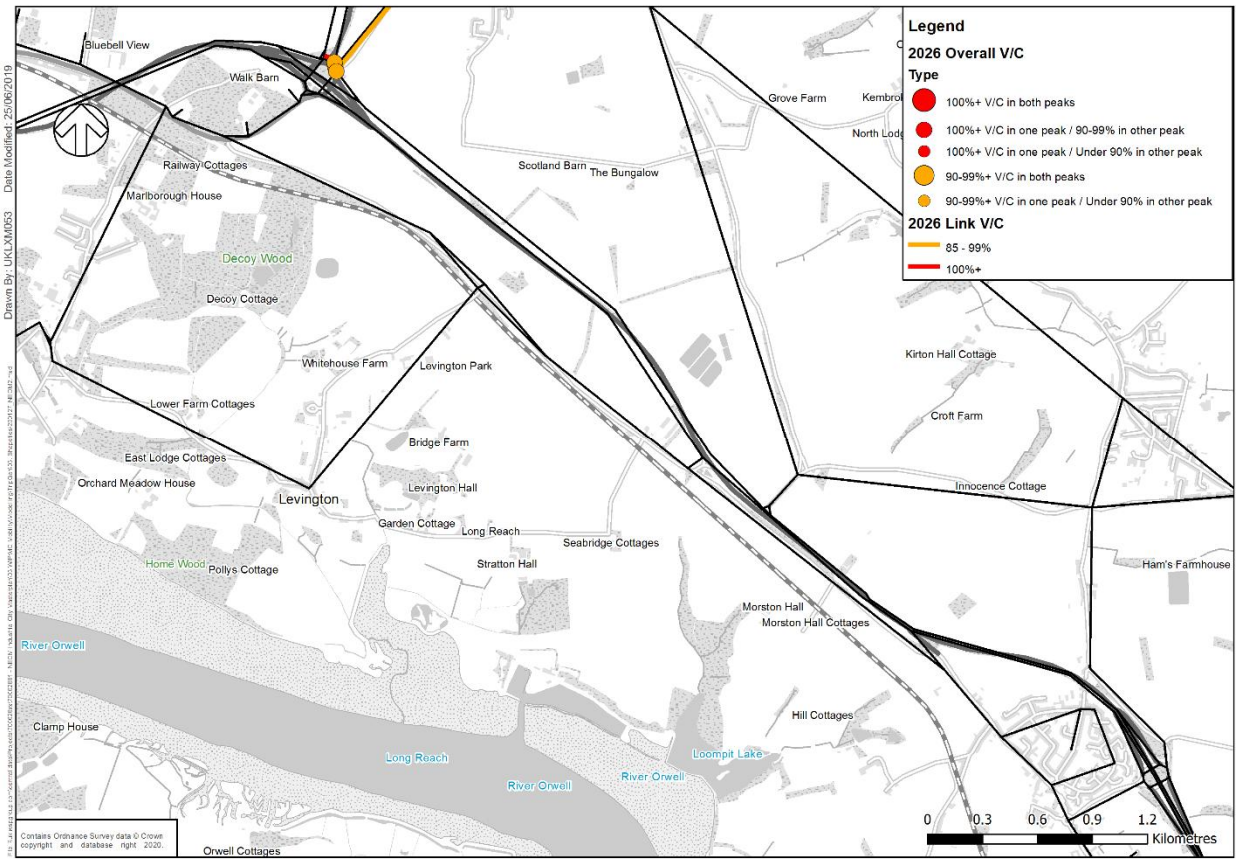


NACTON TO TRIMLEY ST. MARTIN

3.13.18. This area of focus has been retained to demonstrate the removal of the Innocence Farm development from the Suffolk Coastal Local Plan assumptions has decreased the level of congestion in this area. The main issue to note is the A14 westbound is approaching capacity at 85% V/C in the 2036 AM opposite the Croft Lane junction which provides access to Innocence Lane.

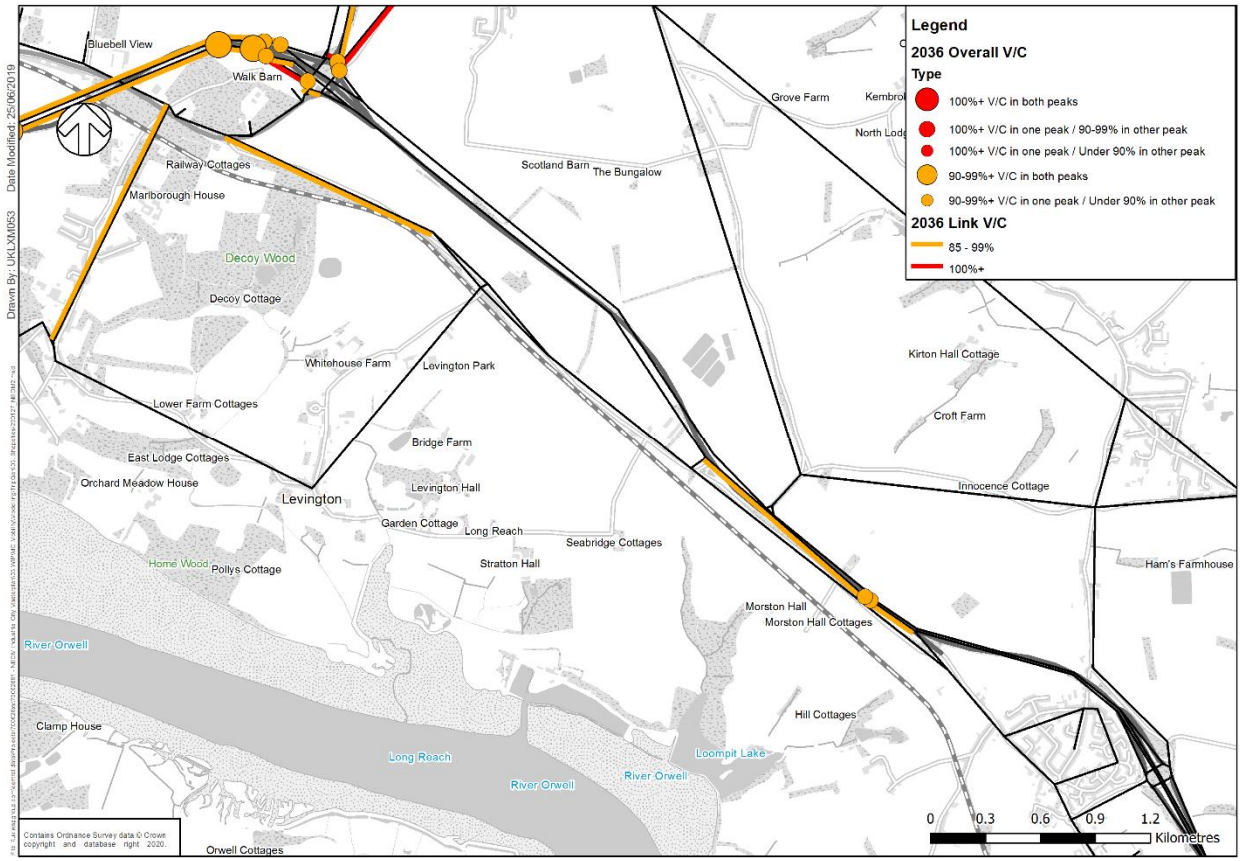
3.13.19. Figure 32 shows the link which is close to capacity adjacent to Innocence Farm in 2026.

Figure 32 – Nacton to Trimley St. Martin – 2026 Links and Junctions with V/C 85%+ - With Adjustment



3.13.20. Figure 33 shows the links on the A14 which are approaching capacity in 2036.

Figure 33 – Nacton to Trimley St. Martin – 2036 Links and Junctions with V/C 85%+ - With Adjustment



4

CONCLUSIONS

4 CONCLUSIONS

4.1 INTRODUCTION

4.1.1. WSP have undertaken additional strategic traffic modelling to inform an assessment of the Local Plans for all LPAs within the ISPA. The focus of this report is on the following forecast years:

- 2026; representing an interim forecast year in the middle of the period between the 2016 base year model and the end of the Local Plan period
- 2036; representing the end of the Local Plan period

4.1.2. The SATURN based Highway Assignment Model (HAM) within the Suffolk County Transport Model (SCTM) has been used to assess the forecast growth in housing and jobs. The SCTM has been updated and validated for a base year of 2016 to ensure it provides a suitable basis from which to generate 2026 and 2036 traffic forecasts.

4.1.3. The modelling detailed in this report represents an updated to the modelling reported in January 2020, taking into account revised development assumptions and takes consideration of potential mitigation measures which will reduce the forecast level of increase in car traffic.

4.2 MODEL RUNS AND REPORTING

4.2.1. The following forecast model runs have been considered:

- 2026/36 AM/PM
- 2026/36 AM/PM with demand adjustments

4.2.2. The methodology underpinning the forecast modelling is detailed within the following reports:

- Suffolk Local Plan Modelling Methodology Report (July 2020)

4.2.3. The model runs have been developed to assess the highway impacts of the proposed development for Babergh, Ipswich, Mid Suffolk, Suffolk Coastal[9] and West Suffolk[10].

4.2.4. Demand adjustments have been made to both 2026 and 2036 forecasts representing a targeted modal shift away from private car travel as well as changes in individuals trip making behaviour such as an increased propensity to work from home or travel outside of peak hours. The model assignments including the demand adjustment are the focus of the results within this report.

[9] Suffolk Coastal represents the area of East Suffolk Council formerly covered by Suffolk Coastal District Council

[10] The focus in relation to West Suffolk has been on cross boundary issues with Mid Suffolk and Babergh, in particular focusing on Bury St Edmunds and area to the east of Bury St Edmunds

4.3 BABERGH MODELLING RESULTS

4.3.1. To the west and south-west of Ipswich, the Beagle roundabout (A1071 / B1113 / Swan Hill) is shown to have overall capacity issues, with multiple arms over-capacity in both 2026 and 2036. The A1071 / Hadleigh Road signalised junction is highlighted as having capacity issues in both forecast years. The congestion in this area is heavily influenced by delays at the A14 J55 Copdock Interchange which is not included in the modelling detailed within this report. Delays on the A12 approach, as well as the slip road approaches, is very significant which leads to traffic to use alternative routes to avoid this delay, increasing pressure on the surrounding SCC highway network.

4.3.2. Sudbury is shown to generally operate within capacity within the town itself in both forecast years. The southern A131 approach to / from Sudbury and A134 / A1071 junction shows capacity issues in both forecast years, going over capacity in 2036.

4.3.3. Brantham is shown to have capacity issues in both forecast years, with the A137 over capacity in both forecast years. This is in part due to the level of network detail within the model as well as the high level of development associated with Brantham Industrial Estate.

4.4 MID SUFFOLK MODELLING RESULTS

4.4.1. The A140 corridor is shown to have capacity issues at multiple locations including the A140 / A1120 staggered crossroads and A140 / Workhouse Road / Stoke Road junction.

4.4.2. Stowmarket is shown to generally operate within capacity in both forecast years, though isolated link approaches to Gipping Way and Ipswich Road are shown to have capacity issues in both forecast years.

4.4.3. Near Woolpit and Elmswell there are congestion issues as a result of the A14 westbound mainline being at capacity (V/C 100%) in the 2036 AM. These leads to problems for traffic trying to use the westbound slip roads to join the A14.

4.4.4. Near to Thurston, the following junctions are shown to experience congestion issues:

- Mount Road / Sow Lane / East Barton Road in 2036, with all arms of the junction over capacity (V/C 100%) in either the AM or PM
  Closer to the Thurston, the New Road / Mount Road to the south experiences delays with the northern approach at 101% V/C

4.5 WEST SUFFOLK MODELLING RESULTS

4.5.1. Along the A143, in close proximity to Mid Suffolk there is shown to be congestion predicted in both 2026 and 2036 around Ixworth, with both A1088 junctions experiencing capacity issues. Congestion is also shown near Great Barton.

4.5.2. The Orttewell Road / Barton signalised junction is shown to generate considerable delays by 2036. The delays at this junction will have an impact on how traffic opts to route through the surrounding area to avoid these delays.

4.5.3. In Bury St Edmunds, sections of Compiegne Way in close proximity and on approaches to the A14 Junction 43 are predicted to be over capacity in the future.

4.5.4. Further south in Bury St Edmunds, the A143 / A1302 Southgate Green roundabout and Southgate Street / Maynewater Lane, are shown to experience capacity issues

4.5.5. To the west of Bury St Edmunds, A1302 Newmarket Road has also been flagged as experiencing capacity issues in both forecast years.

4.6 IPSWICH MODELLING RESULTS

4.6.1. Ipswich is highlighted as the location which benefits the most from the ISPA demand adjustments which have been applied. Ipswich experiences the highest proportional decrease in PCU Delay hours and reduction of junctions which show overall V/C issues.

4.6.2. Despite the significant benefits of the demand reductions, there are still various junction approaches along the A1214 corridor around Ipswich are shown to be over or close to capacity in both 2026 and 2036. Junctions in and around the Star Lane gyratory are shown to have capacity issues in both forecast years. Other junctions which show overall capacity issues include Nacton Road / Landseer Road and the St Augustine roundabout (Bucklesham Road / Felixstowe Road).

4.7 SUFFOLK COASTAL MODELLING RESULTS

4.7.1. The demand adjustments are not shown to make a significant change to the conclusions in relation to Saxmundham. The B1121 / Chantry Road signals, particularly the eastern approach to this junction, though by 2036 the Chantry Road arm continues to show a capacity issue.

4.7.2. Melton shows issues at the signalised crossroads (B1438 / A1152) has approaches which are over-capacity in both 2026 and 2036. The junction overall operates within capacity in 2026 and 2036. The demand reductions reduce the capacity issues at this junction, but the same approaches to the junction continue to be shown to be over capacity.

4.7.3. The demand adjustments do not alleviate the issues on the A12 corridor to the west of Woodbridge. This location is shown to have capacity issues at both the A12 / B1079 and A12 / A1152 roundabouts in both 2026 and 2036, with southbound approaches from the A12 going over-capacity. The A12 / B1438 roundabout has overall capacity issues in 2036. The single carriageway section of the A12 is shown to be approaching capacity in both 2026 and 2036.

4.7.4. Analysis of the A12 corridor to the east of Ipswich shows the network operates within capacity in 2026, demonstrating the mitigation associated with Brightwell Lakes can accommodate the Local Plan growth. However, the A1214 Main Road and Foxhall Road are approaching capacity. In 2036, specific approaches to junctions along the A12 corridor are over capacity, with the A12 itself nearing capacity in the PM peak at the A1214 Main Road, Anson Road/Eagle Way and Foxhall Road roundabouts.

4.7.5. The majority of locations within Felixstowe are shown to operate within capacity in 2026 and 2036. Compared to the previous modelling reported in January 2019, there are fewer capacity issues in Felixstowe which is a combination of the reduction of traffic generation associated with North Felixstowe Garden Neighbourhood and the demand adjustments. Candlet Road and approaches along Garrison Lane continue to be shown as nearing capacity in both forecast years. The Candlet Road approach to the A14 Dockspur roundabout is shown to be over-capacity in 2036.

4.8 SUMMARY

4.8.1. The modelling detailed within this report is considered to be a robust basis which enables each of the LPAs to be able to test the transport impacts of the proposed housing and job growth within their respective emerging Local Plans.

4.8.2. The modelling detailed in this report represents preferred options for Babergh & Mid Suffolk, development options for West Suffolk, Final Draft Local Plan for Ipswich and Local Plan for Suffolk Coastal[11]. The modelling takes account of demand adjustments based on assumptions on influences such as the propensity for a shift away from private car travel, increased working from home and peak spreading whereby trips are made outside of the morning and evening peak hours. The results have been presented to identify key junctions and links where overall V/C is shown to approach or go over capacity.

4.8.3. This assessment is considered a robust assessment of the cumulative impact of proposed housing and job growth within the Local Plans for the ISPA authorities and addresses the cross boundary relationship with West Suffolk (between West Suffolk and Babergh & Mid Suffolk). The assessment can be updated as the Local Plans progress within each of the LPAs, with the impact of specific allocations or mitigation tested using the strategic model where appropriate.

[11] The Suffolk Coastal Local Plan being adopted on the 23rd September 2020

Appendix A

NODE BASED V/C SUMMARY TABLES

Appendix B

LINK BASED V/C SUMMARY TABLES

Appendix C

SNOASIS SENSITIVITY TEST

WSP House
70 Chancery Lane
London
WC2A 1AF

wsp.com

Appendix A - Nodes with V/C over 85% (SCC Highway)

AM

Flagged in Model Run 7?	Node	Description	LPA	Sector	2016 Base	2026 ISPA NoAdj	2026 ISPA wAdj	2036 ISPA NoAdj	2036 ISPA wAdj
Y	5732	A1214 SB (south of Scrivener Drive Roundabout	Babergh District	820 Babergh East	84	100	99	101	100
Y	5805	A137 (near Brantham)	Babergh District	820 Babergh East	23	83	83	91	89
Y	30161	Scrivener Drive / Shepherd Drive Roundabout	Babergh District	820 Babergh East	42	58	54	74	72
Y	30224	Buck's Horns Lane	Babergh District	820 Babergh East	25	59	52	91	74
Y	30225	Buck's Horns Lane/Church Lane	Babergh District	820 Babergh East	25	61	52	104	85
Y	50034	B1113 / A1071	Babergh District	820 Babergh East	82	91	90	102	99
N	10001	A1156 / Civic Drive	Ipswich District (B)	800 Ipswich Central	57	72	64	79	76
Y	10010	A1022 College St / Bridge St (by St Peter's)	Ipswich District (B)	800 Ipswich Central	77	91	87	95	94
N	10013	Lower Orwell Street / Key Street	Ipswich District (B)	800 Ipswich Central	63	70	68	71	71
N	10016	Salthouse Street / Fore Street	Ipswich District (B)	800 Ipswich Central	78	80	80	81	80
N	10017	A1156 / Grimwade St	Ipswich District (B)	800 Ipswich Central	77	87	86	88	87
N	10020	St Helens Street / Grimwade St / Argyle St	Ipswich District (B)	800 Ipswich Central	57	78	70	85	84
N	10041	St Peter's St / A1022 Star Ln	Ipswich District (B)	800 Ipswich Central	65	88	77	88	88
N	10042	Star Lane / Foundation Street / Lower Brook Street	Ipswich District (B)	800 Ipswich Central	55	79	68	82	82
N	10056	Star Lane / Slade Street	Ipswich District (B)	800 Ipswich Central	70	82	82	84	83
N	10057	Lower Orwell Street / Star Lane	Ipswich District (B)	800 Ipswich Central	50	70	62	73	74
Y	10061	Grimwade Street / Fore Street 2	Ipswich District (B)	800 Ipswich Central	85	89	88	89	89
Y	10062	Fore Street / Grimwade St / Neptune Square	Ipswich District (B)	800 Ipswich Central	86	94	93	94	94
Y	10067	Northgate Street / Old Foundry Road	Ipswich District (B)	800 Ipswich Central	6	7	6	5	6
Y	10115	College Street / Foundry Lane	Ipswich District (B)	800 Ipswich Central	72	86	82	90	90
N	70033	St Peter's Dock / Foundry Ln	Ipswich District (B)	800 Ipswich Central	2	7	6	98	42
N	70313	A1156 St Margaret's Street	Ipswich District (B)	800 Ipswich Central	46	68	60	78	77
Y	20014	A1214 / A137 / A1071 / Yarmouth Road	Ipswich District (B)	801 Ipswich NW	45	60	56	71	68
Y	20043	Dale Hall Ln / A1214	Ipswich District (B)	801 Ipswich NW	70	87	84	89	88
Y	20044	A1214 / Henley Road	Ipswich District (B)	801 Ipswich NW	68	85	81	106	97
Y	30142	B1067 / Sproughton Road	Ipswich District (B)	801 Ipswich NW	77	85	81	90	89
Y	20047	A1214 / B1077	Ipswich District (B)	802 Ipswich NE	70	81	76	89	88
Y	20048	A1214 / Tuddenham Road	Ipswich District (B)	802 Ipswich NE	77	83	74	93	90
Y	20057	Woodbridge Rd / Albion Hill / Belvedere Rd	Ipswich District (B)	802 Ipswich NE	60	69	62	78	71
Y	20061	Rushmere Road / Colchester Road	Ipswich District (B)	802 Ipswich NE	63	82	71	94	89
N	20296	Heath Road hospital access	Ipswich District (B)	802 Ipswich NE	58	75	68	86	83
Y	30275	Heath Road / Foxhall Road	Ipswich District (B)	802 Ipswich NE	81	89	84	93	90
Y	30295	Colchester Rd / A1214 Woolbridge Rd E	Ipswich District (B)	802 Ipswich NE	30	40	36	90	76
Y	30296	A1214 / A1189	Ipswich District (B)	802 Ipswich NE	62	83	76	88	84
Y	10018	Star Lane A1156 / Grimwade Street	Ipswich District (B)	803 Ipswich SE	83	94	92	97	96
Y	30241	Landseer Road / Nacton Road	Ipswich District (B)	803 Ipswich SE	54	76	64	87	79
Y	30250	Felixstowe Road/King's Way/Cobham Road	Ipswich District (B)	803 Ipswich SE	50	63	56	76	70
Y	30253	A1189 Felixstowe Rd / Bucklesham Rd roundabout	Ipswich District (B)	803 Ipswich SE	65	73	65	85	80
Y	30663	The Havens (node)	Ipswich District (B)	803 Ipswich SE	97	102	93	100	93
N	30667	Central Avenue	Ipswich District (B)	803 Ipswich SE	60	74	67	86	81
N	2360	A1308 north of A14, near Chilton Way / Bury Road roundabout	Mid Suffolk District	810 Stowmarket	66	83	80	93	92
N	3245	A143 Old Bury Road / A143 Scole Stuston Bypass / A140 Scole Bupass - Scole	Mid Suffolk District	815 Mid Suffolk North	48	67	67	85	84
Y	3203	A140 Angel Hill / A1120 (West)	Mid Suffolk District	816 Mid Suffolk Central	56	70	68	100	98
N	1358	Hollow Road, rail bridge	St. Edmundsbury District (B)	811 Bury St Edmunds	61	52	44	91	85
N	2078	A1302 Parkway / St Andrews St North	St. Edmundsbury District (B)	811 Bury St Edmunds	63	75	70	87	82
N	2080	A143 Compiegne Way / A1101 Out Northgate	St. Edmundsbury District (B)	811 Bury St Edmunds	44	67	62	80	78
N	2111	Southgate Green roundabout (A134 / A1302)	St. Edmundsbury District (B)	811 Bury St Edmunds	55	75	72	88	88
N	2116	Southgate Street / Baker's Lane	St. Edmundsbury District (B)	811 Bury St Edmunds	7	15	13	22	23
N	2118	Southgate Street / St Mary's Square	St. Edmundsbury District (B)	811 Bury St Edmunds	7	16	14	25	26
N	2267	Orttewell Road / Barton Road	St. Edmundsbury District (B)	811 Bury St Edmunds	59	80	69	104	101
N	2311	Mustow Street / Northgate Street	St. Edmundsbury District (B)	811 Bury St Edmunds	49	73	63	86	78
N	1308	Newmarket Road rail bridge, south of A14 - Near A14 J52	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	85	93	92	98	96
N	2234	A143 Compiene Way at speed limit change	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	66	75	72	84	83
N	2242	A143 Compiene Way / A134	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	61	75	70	88	84
N	2284	Mount Road / Sow Lane / East Barton Road	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	41	65	60	93	87
N	3264	Stanton Road / A1088 - Ixworth	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	60	79	78	88	87
N	3325	A143 / Stow Road	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	39	55	53	88	87
N	3855	A134 / Station Road / The Street at Barnham	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	67	89	85	102	102
N	5919	A143 / Thurston Road / Brand Road	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	54	70	69	89	87
N	70515	Chilton Woods development eastern access, A143 Haymarket Road	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	0	59	56	83	80
Y	50050	A12 / B1438 (near Woodbridge)	Suffolk Coastal District	808 Woodbridge/Melton	73	85	81	89	88
Y	50053	A12 / Grundisburgh Road	Suffolk Coastal District	808 Woodbridge/Melton	74	94	91	98	97
N	50107	B1438 Ipswich Road / Top Street Roundabout	Suffolk Coastal District	808 Woodbridge/Melton	47	55	50	63	61
Y	2866	Langer Road / Beach Station Road - Felixstowe	Suffolk Coastal District	809 Felixstowe	48	55	49	65	53
Y	3158	A12 / Woods Lane	Suffolk Coastal District	822 Suffolk Coastal Central	77	91	90	96	96
Y	30406	A12 / A1214 Roundabout – A1214 EB entry	Suffolk Coastal District	832 Kesgrave/Martlesham/Rushm	70	87	82	96	93
Y	30278	Foxhall Road / Bell Lane	Suffolk Coastal District	833 Suffolk Coastal South	57	68	63	69	70

Appendix A - Nodes with V/C over 85% (SCC Highway)

PM

Flagged in Model Run 7?	Node	Description	LPA	Sector	2016 Base	2026 ISPA NoAdj	2026 ISPA wAdj	2036 ISPA NoAdj	2036 ISPA wAdj
Y	5732	A1214 SB (south of Scrivener Drive Roundabout	Babergh District	820 Babergh East	98	104	102	109	106
Y	5805	A137 (near Brantham)	Babergh District	820 Babergh East	27	96	94	110	109
Y	30161	Scrivener Drive / Shepherd Drive Roundabout	Babergh District	820 Babergh East	64	78	74	87	86
Y	30224	Buck's Horns Lane	Babergh District	820 Babergh East	26	78	69	101	98
Y	30225	Buck's Horns Lane/Church Lane	Babergh District	820 Babergh East	26	78	69	108	104
Y	50034	B1113 / A1071	Babergh District	820 Babergh East	67	94	90	105	102
N	10001	A1156 / Civic Drive	Ipswich District (B)	800 Ipswich Central	53	77	64	89	85
Y	10010	A1022 College St / Bridge St (by St Peter's)	Ipswich District (B)	800 Ipswich Central	71	101	82	104	104
N	10013	Lower Orwell Street / Key Street	Ipswich District (B)	800 Ipswich Central	56	58	61	100	56
N	10016	Salthouse Street / Fore Street	Ipswich District (B)	800 Ipswich Central	77	84	84	87	84
N	10017	A1156 / Grimwade St	Ipswich District (B)	800 Ipswich Central	74	77	76	78	76
N	10020	St Helens Street / Grimwade St / Argyle St	Ipswich District (B)	800 Ipswich Central	51	66	60	74	73
N	10041	St Peter's St / A1022 Star Ln	Ipswich District (B)	800 Ipswich Central	60	72	65	71	69
N	10042	Star Lane / Foundation Street / Lower Brook Street	Ipswich District (B)	800 Ipswich Central	62	77	69	96	75
N	10056	Star Lane / Slade Street	Ipswich District (B)	800 Ipswich Central	76	85	78	91	88
N	10057	Lower Orwell Street / Star Lane	Ipswich District (B)	800 Ipswich Central	56	67	61	104	62
Y	10061	Grimwade Street / Fore Street 2	Ipswich District (B)	800 Ipswich Central	70	77	76	80	78
Y	10062	Fore Street / Grimwade St / Neptune Square	Ipswich District (B)	800 Ipswich Central	88	92	91	94	94
Y	10067	Northgate Street / Old Foundry Road	Ipswich District (B)	800 Ipswich Central	10	13	12	109	99
Y	10115	College Street / Foundry Lane	Ipswich District (B)	800 Ipswich Central	66	87	75	100	99
N	70033	St Peter's Dock / Foundry Ln	Ipswich District (B)	800 Ipswich Central	3	6	5	16	14
N	70313	A1156 St Margaret's Street	Ipswich District (B)	800 Ipswich Central	46	67	56	87	84
Y	20014	A1214 / A137 / A1071 / Yarmouth Road	Ipswich District (B)	801 Ipswich NW	57	78	71	86	84
Y	20043	Dale Hall Ln / A1214	Ipswich District (B)	801 Ipswich NW	80	89	86	98	96
Y	20044	A1214 / Henley Road	Ipswich District (B)	801 Ipswich NW	65	83	72	96	93
Y	30142	B1067 / Sproughton Road	Ipswich District (B)	801 Ipswich NW	69	83	78	89	88
Y	20047	A1214 / B1077	Ipswich District (B)	802 Ipswich NE	63	73	65	96	93
Y	20048	A1214 / Tuddenham Road	Ipswich District (B)	802 Ipswich NE	68	77	68	90	85
Y	20057	Woodbridge Rd / Albion Hill / Belvedere Rd	Ipswich District (B)	802 Ipswich NE	60	74	67	86	82
Y	20061	Rushmere Road / Colchester Road	Ipswich District (B)	802 Ipswich NE	65	89	81	97	93
N	20296	Heath Road hospital access	Ipswich District (B)	802 Ipswich NE	30	34	30	37	34
Y	30275	Heath Road / Foxhall Road	Ipswich District (B)	802 Ipswich NE	77	88	84	93	93
Y	30295	Colchester Rd / A1214 Woolbridge Rd E	Ipswich District (B)	802 Ipswich NE	31	37	36	39	39
Y	30296	A1214 / A1189	Ipswich District (B)	802 Ipswich NE	65	84	78	88	85
Y	10018	Star Lane A1156 / Grimwade Street	Ipswich District (B)	803 Ipswich SE	72	75	74	76	74
Y	30241	Landseer Road / Nacton Road	Ipswich District (B)	803 Ipswich SE	62	81	69	101	90
Y	30250	Felixstowe Road/King's Way/Cobham Road	Ipswich District (B)	803 Ipswich SE	69	79	69	88	83
Y	30253	A1189 Felixstowe Rd / Bucklesham Rd roundabout	Ipswich District (B)	803 Ipswich SE	59	65	56	73	72
Y	30663	The Havens (node)	Ipswich District (B)	803 Ipswich SE	33	36	33	36	34
N	30667	Central Avenue	Ipswich District (B)	803 Ipswich SE	9	10	9	11	10
N	2360	A1308 north of A14, near Chilton Way / Bury Road roundabout	Mid Suffolk District	810 Stowmarket	76	84	83	93	92
N	3245	A143 Old Bury Road / A143 Scole Stuston Bypass / A140 Scole Bupass - Scole	Mid Suffolk District	815 Mid Suffolk North	45	59	58	85	82
Y	3203	A140 Angel Hill / A1120 (West)	Mid Suffolk District	816 Mid Suffolk Central	51	66	64	87	85
N	1358	Hollow Road, rail bridge	St. Edmundsbury District (B)	811 Bury St Edmunds	63	55	53	65	61
N	2078	A1302 Parkway / St Andrews St North	St. Edmundsbury District (B)	811 Bury St Edmunds	56	68	62	82	76
N	2080	A143 Compiegne Way / A1101 Out Northgate	St. Edmundsbury District (B)	811 Bury St Edmunds	58	73	67	93	86
N	2111	Southgate Green roundabout (A134 / A1302)	St. Edmundsbury District (B)	811 Bury St Edmunds	61	77	75	86	88
N	2116	Southgate Street / Baker's Lane	St. Edmundsbury District (B)	811 Bury St Edmunds	28	102	99	110	107
N	2118	Southgate Street / St Mary's Square	St. Edmundsbury District (B)	811 Bury St Edmunds	30	28	28	87	30
N	2267	Orttewell Road / Barton Road	St. Edmundsbury District (B)	811 Bury St Edmunds	82	98	93	114	109
N	2311	Mustow Street / Northgate Street	St. Edmundsbury District (B)	811 Bury St Edmunds	49	66	64	69	66
N	1308	Newmarket Road rail bridge, south of A14 - Near A14 J52	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	88	98	96	102	100
N	2234	A143 Compiene Way at speed limit change	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	65	76	74	80	81
N	2242	A143 Compiene Way / A134	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	63	78	75	85	85
N	2284	Mount Road / Sow Lane / East Barton Road	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	33	52	49	70	68
N	3264	Stanton Road / A1088 - Ixworth	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	77	91	91	97	97
N	3325	A143 / Stow Road	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	45	61	60	85	83
N	3855	A134 / Station Road / The Street at Barnham	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	76	88	86	95	94
N	5919	A143 / Thurston Road / Brand Road	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	49	65	63	76	75
N	70515	Chilton Woods development eastern access, A143 Haymarket Road	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	0	64	62	90	88
Y	50050	A12 / B1438 (near Woodbridge)	Suffolk Coastal District	808 Woodbridge/Melton	72	81	78	86	84
Y	50053	A12 / Grundisburgh Road	Suffolk Coastal District	808 Woodbridge/Melton	70	95	92	100	100
N	50107	B1438 Ipswich Road / Top Street Roundabout	Suffolk Coastal District	808 Woodbridge/Melton	66	79	72	88	84
Y	2866	Langer Road / Beach Station Road - Felixstowe	Suffolk Coastal District	809 Felixstowe	66	82	72	95	86
Y	3158	A12 / Woods Lane	Suffolk Coastal District	822 Suffolk Coastal Central	71	89	87	96	95
Y	30406	A12 / A1214 Roundabout – A1214 EB entry	Suffolk Coastal District	832 Kesgrave/Martlesham/Rushm	55	66	62	75	70
Y	30278	Foxhall Road / Bell Lane	Suffolk Coastal District	833 Suffolk Coastal South	64	75	70	87	79

Appendix A - Nodes with V/C over 85% (SCC Highway & SRN) AM

Flagged in Model Run 7?	Node	Description	LPA	Sector	2016 Base	2026 ISPA NoAdj	2026 ISPA wAdj	2036 ISPA NoAdj	2036 ISPA wAdj
Y	3114	A12 Ipswich Road northbound / B1068	Babergh District	819 Babergh Central	53	69	67	78	77
N	30061	A137 / A14 northbound offslip	Babergh District	820 Babergh East	65	71	73	67	66
N	30796	A14 / A12 (Copdock) - A14 WB Slip Node	Babergh District	820 Babergh East	69	72	70	86	81
Y	30799	Copdock Northern Side Circulatory	Babergh District	820 Babergh East	56	62	62	83	86
N	2410	A14 / A1120 - A1120 northern approach	Mid Suffolk District	816 Mid Suffolk Central	72	84	83	89	86
Y	2411	A14 / A1120 - northeast circulating	Mid Suffolk District	816 Mid Suffolk Central	88	99	98	100	100
Y	5755	A14 / Kettle Lane NW of J51	Mid Suffolk District	816 Mid Suffolk Central	59	72	70	74	74
N	5760	B1078 Coddenham Road / Kettle Lane / slip to A14 northbound	Mid Suffolk District	816 Mid Suffolk Central	61	74	71	87	84
N	50018	A14 / Paper Mill Lane (J52) southern approach	Mid Suffolk District	816 Mid Suffolk Central	44	78	75	89	87
Y	3324	A14 J47a	Mid Suffolk District	817 Mid Suffolk South	60	76	75	88	87
Y	5776	A14 / Tostock Road offslip westbound	Mid Suffolk District	817 Mid Suffolk South	83	95	94	100	100
N	2087	A143 / A14 J43 circulatory	St. Edmundsbury District (B)	811 Bury St Edmunds	55	66	64	67	66
N	2189	A14 diverge at Saxham Business Park	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	73	84	83	88	89
N	5768	A14 / Unnamed Road (westbound merge from Beyton)	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	75	87	86	100	100
N	30044	A14 / A12 Seven Hills roundabout Bucklesham Road arm	Suffolk Coastal District	833 Suffolk Coastal South	73	95	91	100	98
Y	30096	A12 / A14 Junction 58	Suffolk Coastal District	833 Suffolk Coastal South	48	92	88	97	95
N	30097	A14 J58 - Bucklesham Road approach	Suffolk Coastal District	833 Suffolk Coastal South	75	95	91	100	99
Y	30098	A14 / A12 - A1156 Entry	Suffolk Coastal District	833 Suffolk Coastal South	91	78	75	85	80
N	85010	A14 / A12 Seven Hills roundabout WB On Ramp	Suffolk Coastal District	833 Suffolk Coastal South	72	67	64	73	69

Appendix A - Nodes with V/C over 85% (SCC Highway & SRN) PM

Flagged in Model Run 7?	Node	Description	LPA	Sector	2016 Base	2026 ISPA NoAdj	2026 ISPA wAdj	2036 ISPA NoAdj	2036 ISPA wAdj
Y	3114	A12 Ipswich Road northbound / B1068	Babergh District	819 Babergh Central	59	79	77	93	92
N	30061	A137 / A14 northbound offslip	Babergh District	820 Babergh East	61	84	78	90	86
N	30796	A14 / A12 (Copdock) - A14 WB Slip Node	Babergh District	820 Babergh East	64	69	69	71	69
Y	30799	Copdock Northern Side Circulatory	Babergh District	820 Babergh East	59	69	69	69	69
N	2410	A14 / A1120 - A1120 northern approach	Mid Suffolk District	816 Mid Suffolk Central	65	79	78	83	81
Y	2411	A14 / A1120 - northeast circulating	Mid Suffolk District	816 Mid Suffolk Central	75	87	86	92	89
Y	5755	A14 / Kettle Lane NW of J51	Mid Suffolk District	816 Mid Suffolk Central	64	79	77	87	86
N	5760	B1078 Coddenham Road / Kettle Lane / slip to A14 northbound	Mid Suffolk District	816 Mid Suffolk Central	49	63	59	76	73
N	50018	A14 / Paper Mill Lane (J52) southern approach	Mid Suffolk District	816 Mid Suffolk Central	33	56	53	74	71
Y	3324	A14 J47a	Mid Suffolk District	817 Mid Suffolk South	62	77	76	85	85
Y	5776	A14 / Tostock Road offslip westbound	Mid Suffolk District	817 Mid Suffolk South	49	64	64	75	74
N	2087	A143 / A14 J43 circulatory	St. Edmundsbury District (B)	811 Bury St Edmunds	69	79	77	86	84
N	2189	A14 diverge at Saxham Business Park	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	54	65	64	73	73
N	5768	A14 / Unnamed Road (westbound merge from Beyton)	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	37	51	51	61	60
N	30044	A14 / A12 Seven Hills roundabout Bucklesham Road arm	Suffolk Coastal District	833 Suffolk Coastal South	62	78	73	77	81
Y	30096	A12 / A14 Junction 58	Suffolk Coastal District	833 Suffolk Coastal South	41	76	72	76	80
N	30097	A14 J58 - Bucklesham Road approach	Suffolk Coastal District	833 Suffolk Coastal South	64	78	74	77	81
Y	30098	A14 / A12 - A1156 Entry	Suffolk Coastal District	833 Suffolk Coastal South	75	65	60	107	80
N	85010	A14 / A12 Seven Hills roundabout WB On Ramp	Suffolk Coastal District	833 Suffolk Coastal South	64	56	51	80	90

Appendix A - Nodes with V/C over 85% (SRN) AM

Flagged in Model Run 7?	Node	Description	LPA	Sector	2016 Base	2026 ISPA NoAdj	2026 ISPA wAdj	2036 ISPA NoAdj	2036 ISPA wAdj
Y	1341	A12 eastbound (west of J31)	Babergh District	819 Babergh Central	64	78	77	84	84
Y	3116	A12 northbound (north of J30)	Babergh District	819 Babergh Central	61	77	76	85	84
Y	3118	A12 northbound (J30 slips)	Babergh District	819 Babergh Central	49	65	64	75	74
N	3122	A12 northbound (south of J50)	Babergh District	819 Babergh Central	52	66	65	74	73
Y	50089	A12 northbound (south of J32B)	Babergh District	819 Babergh Central	65	78	76	87	85
N	3111	A12 J30 - A12 / B1029	Babergh District	820 Babergh East	55	68	67	75	74
Y	30019	A14 north of J54 Sproughton Road, mainline southbound	Babergh District	820 Babergh East	70	78	76	86	83
Y	30020	A14 SB / Offslip Junction 54	Babergh District	820 Babergh East	70	78	76	86	83
Y	30032	A14 / Sproughton Road - SB Merge	Babergh District	820 Babergh East	59	74	69	87	83
Y	30033	A14 SB - Mid Junction 54	Babergh District	820 Babergh East	82	97	93	109	105
Y	30034	A14 SB - South of Junction 54	Babergh District	820 Babergh East	82	97	93	100	100
Y	30036	A14 SB - South of Junction 54 / North of Copdock	Babergh District	820 Babergh East	82	97	93	100	100
Y	30038	A14 SB - South of Junction 54 / North of Copdock	Babergh District	820 Babergh East	82	97	93	100	100
Y	30039	A14 SB - Offslip Copdock	Babergh District	820 Babergh East	82	97	93	100	100
Y	30049	A14 / A12 (Copdock) - Eastbound Merge	Babergh District	820 Babergh East	87	101	97	102	102
Y	30050	A14 SB - East of Copdock	Babergh District	820 Babergh East	87	100	97	100	100
Y	30051	A14 NB / Offslip Copdock	Babergh District	820 Babergh East	72	97	79	106	103
Y	30052	A14 NB East of Copdock	Babergh District	820 Babergh East	72	80	79	87	85
Y	30053	A14 SB - East of Copdock	Babergh District	820 Babergh East	87	100	97	100	100
Y	30054	A14 NB - East of Copdock	Babergh District	820 Babergh East	72	80	79	87	85
Y	30055	A14 SB - East of Copdock	Babergh District	820 Babergh East	87	100	97	100	100
Y	30056	A14 NB - East of Copdock	Babergh District	820 Babergh East	72	80	79	87	85
Y	30057	A14 SB - East of Copdock / West of Junction 56	Babergh District	820 Babergh East	87	100	97	100	100
Y	30058	A14 SB - Offslip Junction 56	Babergh District	820 Babergh East	87	100	97	100	100
Y	30059	A14 NB - West of Junction 56	Babergh District	820 Babergh East	72	80	79	87	85
Y	30063	A14 / A137 - Eastbound Merge	Babergh District	820 Babergh East	85	103	101	105	104
Y	30064	A14 NB - Offslip Junction 56	Babergh District	820 Babergh East	75	93	88	100	99
Y	30065	A14 SB - East of Junction 56	Babergh District	820 Babergh East	95	100	100	100	100
Y	30066	A14 NB - East of Junction 56	Babergh District	820 Babergh East	75	93	88	100	99
Y	30067	A14 SB - East of Junction 56	Babergh District	820 Babergh East	95	100	100	100	100
Y	30068	A14 NB - East of Junction 56	Babergh District	820 Babergh East	75	93	88	100	99
Y	30797	Copdock Southern Side Circulatory	Babergh District	820 Babergh East	82	89	87	107	104
Y	30798	A12 / A14 Junction - A12 Northbound Offslip	Babergh District	820 Babergh East	66	76	76	78	83
N	30001	A14 north of J53 Bury Road, mainline northbound	Ipswich District (B)	801 Ipswich NW	73	80	81	74	76
Y	30003	A14 north of J53 Bury Road, mainline southbound	Ipswich District (B)	801 Ipswich NW	85	91	91	91	91
Y	30004	A14 SB / Offslip Junction 53	Ipswich District (B)	801 Ipswich NW	85	91	91	91	91
Y	30014	A14 south of J53 Bury Road, mainline southbound	Ipswich District (B)	801 Ipswich NW	70	78	76	86	83
Y	30015	A14 south of J53 Bury Road, mainline southbound	Ipswich District (B)	801 Ipswich NW	70	78	76	86	83
Y	30017	A14 J53 to J55, mainline southbound	Ipswich District (B)	801 Ipswich NW	70	78	76	86	83
Y	30069	A14 SB - East of Junction 56	Ipswich District (B)	803 Ipswich SE	95	100	100	100	100
Y	30070	A14 NB - East of Junction 56	Ipswich District (B)	803 Ipswich SE	75	93	88	100	99
Y	30071	A14 SB - East of Junction 56	Ipswich District (B)	803 Ipswich SE	95	100	100	100	100
Y	30073	A14 SB - East of Junction 56	Ipswich District (B)	803 Ipswich SE	95	100	100	100	100
Y	30074	A14 SB / Junction 57 Offslip	Ipswich District (B)	803 Ipswich SE	95	100	100	100	100
Y	30075	A14 NB West of Junction 57	Ipswich District (B)	803 Ipswich SE	75	93	88	100	99
Y	30076	A14 / A1189 - Westbound Merge	Ipswich District (B)	803 Ipswich SE	63	82	78	102	91
Y	30077	A14 / A1189 - A14 offslip eastbound before roundabout	Ipswich District (B)	803 Ipswich SE	95	105	103	105	103
Y	30081	J57 A14 EB OnSlip	Ipswich District (B)	803 Ipswich SE	49	49	51	50	51
Y	30082	A14 eastbound (east of J57)	Ipswich District (B)	803 Ipswich SE	61	60	63	62	63
Y	30083	A14 westbound (J57, offslip diverge)	Ipswich District (B)	803 Ipswich SE	67	83	80	95	90
Y	30084	A14 westbound (east of J57)	Ipswich District (B)	803 Ipswich SE	66	83	80	94	89
Y	2363	A14 eastbound (J49 offslip diverge)	Mid Suffolk District	816 Mid Suffolk Central	48	66	64	81	80
Y	2418	A14 northbound (between J49 and 47)	Mid Suffolk District	816 Mid Suffolk Central	70	83	82	89	89
Y	2419	A14 eastbound (west of J49)	Mid Suffolk District	816 Mid Suffolk Central	48	66	64	81	80
Y	2420	A14 northbound (between J49 and 47)	Mid Suffolk District	816 Mid Suffolk Central	70	83	82	89	89
Y	2421	A14 eastbound (west of J49)	Mid Suffolk District	816 Mid Suffolk Central	48	66	64	81	80
Y	2433	A14 eastbound (east of Stowmarket)	Mid Suffolk District	816 Mid Suffolk Central	61	76	75	89	89
Y	3142	A14 southbound (north of J51, adjacent to Needham Market)	Mid Suffolk District	816 Mid Suffolk Central	61	76	75	89	89
Y	5751	A14 southbound (south of J51, A140)	Mid Suffolk District	816 Mid Suffolk Central	75	89	88	99	98
Y	5753	A14 southbound (J51, onslip merge)	Mid Suffolk District	816 Mid Suffolk Central	62	77	76	88	88
Y	5759	A14 southbound (north of J51, adjacent to Needham Market)	Mid Suffolk District	816 Mid Suffolk Central	61	76	75	89	89
Y	5761	A14 southbound (J51, offslip diverge)	Mid Suffolk District	816 Mid Suffolk Central	61	76	75	89	89
Y	5765	A14 westbound (At Beyton)	Mid Suffolk District	816 Mid Suffolk Central	78	88	87	95	94
Y	5775	A14 eastbound (east of J46 onslip at Beyton)	Mid Suffolk District	816 Mid Suffolk Central	47	65	64	81	81

Flagged in Model Run 7?	Node	Description	LPA	Sector	2016 Base	2026 ISPA NoAdj	2026 ISPA wAdj	2036 ISPA NoAdj	2036 ISPA wAdj
Y	50010	A14 southbound (north of J52)	Mid Suffolk District	816 Mid Suffolk Central	75	89	88	99	98
Y	50011	A14 southbound (J52, offslip diverge)	Mid Suffolk District	816 Mid Suffolk Central	75	89	88	99	98
Y	50019	A14 / Claydon - SB Merge	Mid Suffolk District	816 Mid Suffolk Central	75	85	84	95	94
Y	50020	A14 SB, south of Junction 52	Mid Suffolk District	816 Mid Suffolk Central	94	104	103	114	113
Y	50021	A14 NB Junction 52 Offslip	Mid Suffolk District	816 Mid Suffolk Central	81	89	89	81	84
N	50022	A14 south of J53 Bury Road, mainline northbound	Mid Suffolk District	816 Mid Suffolk Central	73	80	81	74	76
Y	50023	A14 J52 to J53, mainline southbound	Mid Suffolk District	816 Mid Suffolk Central	85	91	91	91	91
N	50024	A14 south of J53 Bury Road, mainline northbound	Mid Suffolk District	816 Mid Suffolk Central	73	80	81	74	76
N	50087	A14 southbound (between J51-52)	Mid Suffolk District	816 Mid Suffolk Central	75	89	88	99	98
Y	3829	A14 eastbound (J46 offslip)	Mid Suffolk District	817 Mid Suffolk South	42	60	59	73	73
Y	5762	A14 westbound (At Beyton)	Mid Suffolk District	817 Mid Suffolk South	78	88	87	95	94
Y	5767	A14 westbound (At Beyton)	Mid Suffolk District	817 Mid Suffolk South	78	88	87	95	94
N	85051	A14 westbound, slip road from Woolpit	Mid Suffolk District	817 Mid Suffolk South	70	84	83	100	100
N	2085	A14 Junction 43 eastbound diverge	St. Edmundsbury District (B)	811 Bury St Edmunds	53	68	67	85	83
N	2090	A14 Junction 43 westbound diverge	St. Edmundsbury District (B)	811 Bury St Edmunds	90	98	97	100	100
N	2091	A14 Junction 43 eastbound merge	St. Edmundsbury District (B)	811 Bury St Edmunds	40	57	56	83	80
N	2096	A14 Junction 44 eastbound diverge	St. Edmundsbury District (B)	811 Bury St Edmunds	57	77	75	101	98
N	2104	A14 Junction 44 westbound diverge	St. Edmundsbury District (B)	811 Bury St Edmunds	94	102	101	103	102
N	2206	A14 eastbound mainline (J42 to J43)	St. Edmundsbury District (B)	811 Bury St Edmunds	53	68	67	85	83
N	2207	A14 westbound prior to J42	St. Edmundsbury District (B)	811 Bury St Edmunds	72	84	82	88	87
N	2239	A14 eastbound mainline (J44 to J45)	St. Edmundsbury District (B)	811 Bury St Edmunds	41	57	55	80	79
N	2244	A14 eastbound mainline (J43 to J44)	St. Edmundsbury District (B)	811 Bury St Edmunds	51	70	68	93	91
N	2108	A14 eastbound mainline (J44 to J45)	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	41	57	55	80	79
N	2109	A14 westbound mainline (J45 to J44)	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	88	95	94	96	95
N	2190	A14 eastbound north of Saxham Business Park	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	60	75	74	88	89
N	2192	A14 Junction 52 eastbound diverge	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	60	75	74	88	89
N	2203	A14 westbound at J42 diverge	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	72	84	82	88	87
N	2238	A14 westbound mainline (J45 to J44), near Sow Lane	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	88	95	94	96	95
N	2285	A14 / Sow Lane - westbound slips	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	79	87	87	93	91
N	2286	A14 / Sow Lane - eastbound slips	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	35	51	50	71	70
N	2314	A14 mainline eastbound near Risby	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	48	61	60	72	74
N	2315	A14 westbound prior to J42	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	72	84	82	88	87
N	2316	A14 eastbound, node before A14 / Sow Lane - A14 western approach	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	41	57	55	80	79
N	3827	A14 eastbound (between J45-46)	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	42	60	59	73	73
N	5696	A14 Junction 41 eastbound diverge	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	48	62	60	75	74
N	5697	A14 mainline westbound near A14 Junction 41	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	74	85	84	88	89
N	2966	A14 westbound (north of Trimley St Martin)	Suffolk Coastal District	809 Felixstowe	57	75	73	88	85
N	50097	A14 westbound (north of Trimley St Martin)	Suffolk Coastal District	809 Felixstowe	57	75	73	88	85
Y	30072	A14 NB - East of Junction 56	Suffolk Coastal District	833 Suffolk Coastal South	75	93	88	100	99
Y	30085	A14 eastbound (between J57-58)	Suffolk Coastal District	833 Suffolk Coastal South	61	58	61	59	59
Y	30086	A14 westbound (between J57-58)	Suffolk Coastal District	833 Suffolk Coastal South	67	83	80	95	90
Y	30087	A14 eastbound (between J57-58)	Suffolk Coastal District	833 Suffolk Coastal South	61	58	61	59	59
Y	30088	A14 westbound (between J57-58)	Suffolk Coastal District	833 Suffolk Coastal South	67	83	80	95	90
Y	30089	A14 eastbound (between J57-58)	Suffolk Coastal District	833 Suffolk Coastal South	61	58	61	59	59
Y	30090	A14 eastbound (J58 offslip diverge)	Suffolk Coastal District	833 Suffolk Coastal South	61	58	61	59	59
Y	30091	A14 westbound (between J57-58)	Suffolk Coastal District	833 Suffolk Coastal South	67	83	80	95	90
Y	30092	A14 A1156 junction - A14 wb on slip	Suffolk Coastal District	833 Suffolk Coastal South	57	75	71	90	83
N	50095	A14 westbound (slips to/from Levington)	Suffolk Coastal District	833 Suffolk Coastal South	54	73	70	87	84
Y	85002	A14 (Close to Nactonheath Plantation)	Suffolk Coastal District	833 Suffolk Coastal South	0	53	56	56	56

Appendix A - Nodes with V/C over 85% (SRN) PM

Flagged in Model Run 7?	Node	Description	LPA	Sector	2016 Base	2026 ISPA NoAdj	2026 ISPA wAdj	2036 ISPA NoAdj	2036 ISPA wAdj
Y	1341	A12 eastbound (west of J31)	Babergh District	819 Babergh Central	68	86	84	95	95
Y	3116	A12 northbound (north of J30)	Babergh District	819 Babergh Central	67	86	84	97	96
Y	3118	A12 northbound (J30 slips)	Babergh District	819 Babergh Central	55	76	74	95	88
N	3122	A12 northbound (south of J50)	Babergh District	819 Babergh Central	57	75	73	85	83
Y	50089	A12 northbound (south of J32B)	Babergh District	819 Babergh Central	57	70	69	80	79
N	3111	A12 J30 - A12 / B1029	Babergh District	820 Babergh East	59	75	74	86	85
Y	30019	A14 north of J54 Sproughton Road, mainline southbound	Babergh District	820 Babergh East	73	85	84	87	86
Y	30020	A14 SB / Offslip Junction 54	Babergh District	820 Babergh East	73	85	84	87	86
Y	30032	A14 / Sproughton Road - SB Merge	Babergh District	820 Babergh East	58	78	76	86	82
Y	30033	A14 SB - Mid Junction 54	Babergh District	820 Babergh East	82	103	100	109	106
Y	30034	A14 SB - South of Junction 54	Babergh District	820 Babergh East	82	100	100	100	100
Y	30036	A14 SB - South of Junction 54 / North of Copdock	Babergh District	820 Babergh East	82	100	100	100	100
Y	30038	A14 SB - South of Junction 54 / North of Copdock	Babergh District	820 Babergh East	82	100	100	100	100
Y	30039	A14 SB - Offslip Copdock	Babergh District	820 Babergh East	82	100	100	100	100
Y	30049	A14 / A12 (Copdock) - Eastbound Merge	Babergh District	820 Babergh East	71	81	80	82	80
Y	30050	A14 SB - East of Copdock	Babergh District	820 Babergh East	77	85	84	85	84
Y	30051	A14 NB / Offslip Copdock	Babergh District	820 Babergh East	77	96	86	99	100
Y	30052	A14 NB East of Copdock	Babergh District	820 Babergh East	77	85	86	83	84
Y	30053	A14 SB - East of Copdock	Babergh District	820 Babergh East	77	85	84	85	84
Y	30054	A14 NB - East of Copdock	Babergh District	820 Babergh East	77	85	86	83	84
Y	30055	A14 SB - East of Copdock	Babergh District	820 Babergh East	77	85	84	85	84
Y	30056	A14 NB - East of Copdock	Babergh District	820 Babergh East	77	85	86	83	84
Y	30057	A14 SB - East of Copdock / West of Junction 56	Babergh District	820 Babergh East	77	85	84	85	84
Y	30058	A14 SB - Offslip Junction 56	Babergh District	820 Babergh East	77	85	84	85	84
Y	30059	A14 NB - West of Junction 56	Babergh District	820 Babergh East	77	85	86	83	84
Y	30063	A14 / A137 - Eastbound Merge	Babergh District	820 Babergh East	73	91	89	92	91
Y	30064	A14 NB - Offslip Junction 56	Babergh District	820 Babergh East	87	100	98	100	100
Y	30065	A14 SB - East of Junction 56	Babergh District	820 Babergh East	85	99	98	100	99
Y	30066	A14 NB - East of Junction 56	Babergh District	820 Babergh East	87	100	98	100	100
Y	30067	A14 SB - East of Junction 56	Babergh District	820 Babergh East	85	99	98	100	99
Y	30068	A14 NB - East of Junction 56	Babergh District	820 Babergh East	87	100	98	100	100
Y	30797	Copdock Southern Side Circulatory	Babergh District	820 Babergh East	80	85	83	96	93
Y	30798	A12 / A14 Junction - A12 Northbound Offslip	Babergh District	820 Babergh East	81	94	94	94	95
N	30001	A14 north of J53 Bury Road, mainline northbound	Ipswich District (B)	801 Ipswich NW	76	83	85	83	86
Y	30003	A14 north of J53 Bury Road, mainline southbound	Ipswich District (B)	801 Ipswich NW	81	91	91	91	91
Y	30004	A14 SB / Offslip Junction 53	Ipswich District (B)	801 Ipswich NW	81	91	91	91	91
Y	30014	A14 south of J53 Bury Road, mainline southbound	Ipswich District (B)	801 Ipswich NW	73	85	84	87	86
Y	30015	A14 south of J53 Bury Road, mainline southbound	Ipswich District (B)	801 Ipswich NW	73	85	84	87	86
Y	30017	A14 J53 to J55, mainline southbound	Ipswich District (B)	801 Ipswich NW	73	85	84	87	86
Y	30069	A14 SB - East of Junction 56	Ipswich District (B)	803 Ipswich SE	85	99	98	100	99
Y	30070	A14 NB - East of Junction 56	Ipswich District (B)	803 Ipswich SE	87	100	98	100	100
Y	30071	A14 SB - East of Junction 56	Ipswich District (B)	803 Ipswich SE	85	99	98	100	99
Y	30073	A14 SB - East of Junction 56	Ipswich District (B)	803 Ipswich SE	85	99	98	100	99
Y	30074	A14 SB / Junction 57 Offslip	Ipswich District (B)	803 Ipswich SE	85	99	98	100	99
Y	30075	A14 NB West of Junction 57	Ipswich District (B)	803 Ipswich SE	87	100	98	100	100
Y	30076	A14 / A1189 - Westbound Merge	Ipswich District (B)	803 Ipswich SE	78	102	92	103	104
Y	30077	A14 / A1189 - A14 offslip eastbound before roundabout	Ipswich District (B)	803 Ipswich SE	38	53	50	56	53
Y	30081	J57 A14 EB OnSlip	Ipswich District (B)	803 Ipswich SE	62	70	70	90	82
Y	30082	A14 eastbound (east of J57)	Ipswich District (B)	803 Ipswich SE	76	83	83	98	92
Y	30083	A14 westbound (J57, offslip diverge)	Ipswich District (B)	803 Ipswich SE	61	76	71	97	94
Y	30084	A14 westbound (east of J57)	Ipswich District (B)	803 Ipswich SE	60	75	71	96	94
Y	2363	A14 eastbound (J49 offslip diverge)	Mid Suffolk District	816 Mid Suffolk Central	67	81	79	85	85
Y	2418	A14 northbound (between J49 and 47)	Mid Suffolk District	816 Mid Suffolk Central	50	65	64	75	75
Y	2419	A14 eastbound (west of J49)	Mid Suffolk District	816 Mid Suffolk Central	67	81	79	85	85
Y	2420	A14 northbound (between J49 and 47)	Mid Suffolk District	816 Mid Suffolk Central	50	65	64	75	75
Y	2421	A14 eastbound (west of J49)	Mid Suffolk District	816 Mid Suffolk Central	67	81	79	85	85
Y	2433	A14 eastbound (east of Stowmarket)	Mid Suffolk District	816 Mid Suffolk Central	61	72	71	77	76
Y	3142	A14 southbound (north of J51, adjacent to Needham Market)	Mid Suffolk District	816 Mid Suffolk Central	61	72	71	77	76
Y	5751	A14 southbound (south of J51, A140)	Mid Suffolk District	816 Mid Suffolk Central	67	79	77	86	85
Y	5753	A14 southbound (J51, onslip merge)	Mid Suffolk District	816 Mid Suffolk Central	53	65	64	73	73
Y	5759	A14 southbound (north of J51, adjacent to Needham Market)	Mid Suffolk District	816 Mid Suffolk Central	61	72	71	77	76
Y	5761	A14 southbound (J51, offslip diverge)	Mid Suffolk District	816 Mid Suffolk Central	61	72	71	77	76
Y	5765	A14 westbound (At Beyton)	Mid Suffolk District	816 Mid Suffolk Central	44	58	58	66	65
Y	5775	A14 eastbound (east of J46 onslip at Beyton)	Mid Suffolk District	816 Mid Suffolk Central	74	89	87	95	95

Flagged in Model Run 7?	Node	Description	LPA	Sector	2016 Base	2026 ISPA NoAdj	2026 ISPA wAdj	2036 ISPA NoAdj	2036 ISPA wAdj
Y	50010	A14 southbound (north of J52)	Mid Suffolk District	816 Mid Suffolk Central	67	79	77	86	85
Y	50011	A14 southbound (J52, offslip diverge)	Mid Suffolk District	816 Mid Suffolk Central	67	79	77	86	85
Y	50019	A14 / Claydon - SB Merge	Mid Suffolk District	816 Mid Suffolk Central	71	87	86	88	89
Y	50020	A14 SB, south of Junction 52	Mid Suffolk District	816 Mid Suffolk Central	89	102	102	104	105
Y	50021	A14 NB Junction 52 Offslip	Mid Suffolk District	816 Mid Suffolk Central	84	92	94	92	95
N	50022	A14 south of J53 Bury Road, mainline northbound	Mid Suffolk District	816 Mid Suffolk Central	76	83	85	83	86
Y	50023	A14 J52 to J53, mainline southbound	Mid Suffolk District	816 Mid Suffolk Central	81	91	91	91	91
N	50024	A14 south of J53 Bury Road, mainline northbound	Mid Suffolk District	816 Mid Suffolk Central	76	83	85	83	86
N	50087	A14 southbound (between J51-52)	Mid Suffolk District	816 Mid Suffolk Central	67	79	77	86	85
Y	3829	A14 eastbound (J46 offslip)	Mid Suffolk District	817 Mid Suffolk South	72	87	85	94	94
Y	5762	A14 westbound (At Beyton)	Mid Suffolk District	817 Mid Suffolk South	44	58	58	66	65
Y	5767	A14 westbound (At Beyton)	Mid Suffolk District	817 Mid Suffolk South	44	58	58	66	65
N	85051	A14 westbound, slip road from Woolpit	Mid Suffolk District	817 Mid Suffolk South	38	52	51	62	62
N	2085	A14 Junction 43 eastbound diverge	St. Edmundsbury District (B)	811 Bury St Edmunds	72	87	84	96	94
N	2090	A14 Junction 43 westbound diverge	St. Edmundsbury District (B)	811 Bury St Edmunds	64	81	79	96	93
N	2091	A14 Junction 43 eastbound merge	St. Edmundsbury District (B)	811 Bury St Edmunds	70	80	77	89	86
N	2096	A14 Junction 44 eastbound diverge	St. Edmundsbury District (B)	811 Bury St Edmunds	88	97	95	105	103
N	2104	A14 Junction 44 westbound diverge	St. Edmundsbury District (B)	811 Bury St Edmunds	52	73	71	91	91
N	2206	A14 eastbound mainline (J42 to J43)	St. Edmundsbury District (B)	811 Bury St Edmunds	72	87	84	96	94
N	2207	A14 westbound prior to J42	St. Edmundsbury District (B)	811 Bury St Edmunds	51	67	66	79	77
N	2239	A14 eastbound mainline (J44 to J45)	St. Edmundsbury District (B)	811 Bury St Edmunds	74	81	80	86	87
N	2244	A14 eastbound mainline (J43 to J44)	St. Edmundsbury District (B)	811 Bury St Edmunds	81	90	88	97	96
N	2108	A14 eastbound mainline (J44 to J45)	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	74	81	80	86	87
N	2109	A14 westbound mainline (J45 to J44)	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	48	68	65	85	85
N	2190	A14 eastbound north of Saxham Business Park	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	75	87	86	92	92
N	2192	A14 Junction 52 eastbound diverge	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	75	87	86	92	92
N	2203	A14 westbound at J42 diverge	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	51	67	66	79	77
N	2238	A14 westbound mainline (J45 to J44), near Sow Lane	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	48	68	65	85	85
N	2285	A14 / Sow Lane - westbound slips	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	39	57	55	72	71
N	2286	A14 / Sow Lane - eastbound slips	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	64	76	74	91	91
N	2314	A14 mainline eastbound near Risby	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	69	79	78	85	85
N	2315	A14 westbound prior to J42	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	51	67	66	79	77
N	2316	A14 eastbound, node before A14 / Sow Lane - A14 western approach	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	74	81	80	86	87
N	3827	A14 eastbound (between J45-46)	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	72	87	85	94	94
N	5696	A14 Junction 41 eastbound diverge	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	69	81	79	89	88
N	5697	A14 mainline westbound near A14 Junction 41	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	49	59	58	65	65
N	2966	A14 westbound (north of Trimley St Martin)	Suffolk Coastal District	809 Felixstowe	52	62	60	69	67
N	50097	A14 westbound (north of Trimley St Martin)	Suffolk Coastal District	809 Felixstowe	52	62	60	69	67
Y	30072	A14 NB - East of Junction 56	Suffolk Coastal District	833 Suffolk Coastal South	87	100	98	100	100
Y	30085	A14 eastbound (between J57-58)	Suffolk Coastal District	833 Suffolk Coastal South	75	84	84	98	94
Y	30086	A14 westbound (between J57-58)	Suffolk Coastal District	833 Suffolk Coastal South	61	76	71	97	94
Y	30087	A14 eastbound (between J57-58)	Suffolk Coastal District	833 Suffolk Coastal South	76	85	85	99	94
Y	30088	A14 westbound (between J57-58)	Suffolk Coastal District	833 Suffolk Coastal South	61	76	71	97	94
Y	30089	A14 eastbound (between J57-58)	Suffolk Coastal District	833 Suffolk Coastal South	76	85	85	99	94
Y	30090	A14 eastbound (J58 offslip diverge)	Suffolk Coastal District	833 Suffolk Coastal South	76	85	85	99	94
Y	30091	A14 westbound (between J57-58)	Suffolk Coastal District	833 Suffolk Coastal South	61	76	71	97	94
Y	30092	A14 A1156 junction - A14 wb on slip	Suffolk Coastal District	833 Suffolk Coastal South	50	67	62	98	95
N	50095	A14 westbound (slips to/from Levington)	Suffolk Coastal District	833 Suffolk Coastal South	50	59	56	70	67
Y	85002	A14 (Close to Nactonheath Plantation)	Suffolk Coastal District	833 Suffolk Coastal South	0	79	79	104	96

Appendix B - Links with V/C over 100% (SCC Highway)

AM

Flagged in Model Run 7?	All	Name	District	Sector	2016 - WorstApproach	2026 NoAdj - WorstApproa	2026 wAdj - WorstApproacl	2036 NoAdj - WorstApproa	2036 wAdj - WorstApproach
Y	2678	A131 / Newton Rd	Babergh District	813 Sudbury	73	88	78	101	100
Y	2779	Milner Rd / Mid Link	Babergh District	813 Sudbury	83	97	87	101	101
N	2780	Northern Road / Milner Road	Babergh District	813 Sudbury	87	95	91	100	99
Y	2785	A131 Cross St / B1115 Church St	Babergh District	813 Sudbury	77	95	93	110	108
Y	3540	A131 / Bulmer Rd / Middleton Rd	Babergh District	813 Sudbury	63	79	75	101	98
Y	3316	A134 / A1141	Babergh District	818 Babergh West	24	42	37	97	73
N	3548	B1115 Heath Road / Tentree Road	Babergh District	818 Babergh West	54	87	84	102	102
Y	2787	A134 Sudbury Road / Boxford Lane	Babergh District	819 Babergh Central	101	103	103	106	107
Y	3130	A1071 / A1141 Stone St	Babergh District	819 Babergh Central	28	42	39	104	102
Y	5834	A134 Sudbury Road / Valley Road	Babergh District	819 Babergh Central	82	88	87	93	93
N	50039	London Road / Church Lane	Babergh District	819 Babergh Central	30	73	67	84	82
Y	5732	A1214 SB (south of Scrivener Drive Rou	Babergh District	820 Babergh East	84	100	99	101	100
Y	5805	A137 (near Brantham)	Babergh District	820 Babergh East	29	99	101	112	110
Y	30135	B1113 / Lower Street / High Street	Babergh District	820 Babergh East	73	80	76	96	93
Y	30155	A1214 London / A1071 / Scrivener Dr	Babergh District	820 Babergh East	66	86	83	96	99
Y	30161	Scrivener Drive / Shepherd Drive Round	Babergh District	820 Babergh East	68	102	94	114	108
Y	30223	Buck's Horns Ln / Grove Hill	Babergh District	820 Babergh East	47	100	98	100	100
Y	30224	Buck's Horns Lane	Babergh District	820 Babergh East	47	100	98	100	100
Y	30225	Buck's Horns Lane/Church Lane	Babergh District	820 Babergh East	47	105	98	125	121
Y	50034	B1113 / A1071	Babergh District	820 Babergh East	104	111	108	131	127
Y	80405	A137 Brantham Hill / Palfrey Heights	Babergh District	820 Babergh East	0	79	81	84	84
N	2181	Westley Road / Westley Lane	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	61	80	76	100	92
Y	10001	A1156 / Civic Drive	Ipswich District (B)	800 Ipswich Central	92	100	93	101	99
Y	10002	A1071 / Civic Drive	Ipswich District (B)	800 Ipswich Central	82	90	78	102	102
Y	10004	Princes St / Civic Dr / Franciscan Way	Ipswich District (B)	800 Ipswich Central	50	48	44	61	57
Y	10007	Grey Friars Rd / Star Ln / College St / Bri	Ipswich District (B)	800 Ipswich Central	78	94	90	100	97
Y	10008	A137 Grafton Way / Bridge St	Ipswich District (B)	800 Ipswich Central	67	101	80	106	106
Y	10009	Bridge St / College St	Ipswich District (B)	800 Ipswich Central	92	98	96	100	100
Y	10010	A1022 College St / Bridge St (by St Peter	Ipswich District (B)	800 Ipswich Central	77	91	87	95	94
Y	10011	College Street / Foundation St	Ipswich District (B)	800 Ipswich Central	81	89	86	90	90
N	10013	Lower Orwell Street / Key Street	Ipswich District (B)	800 Ipswich Central	67	76	69	87	89
Y	10020	St Helens Street / Grimwade St / Argyl	Ipswich District (B)	800 Ipswich Central	90	102	100	102	102
Y	10022	Woodbridge Rd / Christchurch St	Ipswich District (B)	800 Ipswich Central	72	99	95	109	104
Y	10024	Great Colman St / A1156 St Margaret's	Ipswich District (B)	800 Ipswich Central	39	78	57	87	85
Y	10027	Margaret's St / Northgate St	Ipswich District (B)	800 Ipswich Central	43	54	49	56	56
N	10042	Star Lane / Foundation Street / Lower B	Ipswich District (B)	800 Ipswich Central	61	82	73	84	83
Y	10049	Bond Street / St Margaret's Street	Ipswich District (B)	800 Ipswich Central	59	90	75	102	101
N	10050	A1156 Bond Street / Rope Walk / Eagle	Ipswich District (B)	800 Ipswich Central	16	56	45	71	70
N	10056	Star Lane / Slade Street	Ipswich District (B)	800 Ipswich Central	84	100	100	101	101
N	10057	Lower Orwell Street / Star Lane	Ipswich District (B)	800 Ipswich Central	50	70	62	73	74
Y	10061	Grimwade Street / Fore Street 2	Ipswich District (B)	800 Ipswich Central	102	106	105	106	106
N	10063	Old Foundry Road / Great Colman Stree	Ipswich District (B)	800 Ipswich Central	9	8	8	7	7
Y	10067	Northgate Street / Old Foundry Road	Ipswich District (B)	800 Ipswich Central	7	7	7	5	6
N	10068	Star Lane / Fore Street	Ipswich District (B)	800 Ipswich Central	53	61	61	73	69
N	10094	Star Lane / Car park access	Ipswich District (B)	800 Ipswich Central	51	71	63	74	74
Y	10115	College Street / Foundry Lane	Ipswich District (B)	800 Ipswich Central	79	87	84	111	108
Y	20003	B1075 Princes St / Portman Rd	Ipswich District (B)	800 Ipswich Central	31	32	31	52	48
Y	20012	Westend Rd / Portman's Walk	Ipswich District (B)	800 Ipswich Central	33	42	37	49	45
Y	20072	Back Hamlet / Fore Hamlet / Duck St	Ipswich District (B)	800 Ipswich Central	69	101	70	111	109
Y	70033	St Peter's Dock / Foundry Ln	Ipswich District (B)	800 Ipswich Central	3	9	8	112	75
Y	5637	Valley Rd A1214 / Graham Avenue	Ipswich District (B)	801 Ipswich NW	32	35	38	35	45
Y	20016	Portman Road / Handford Road	Ipswich District (B)	801 Ipswich NW	82	91	87	96	90
Y	20017	Portman Road / Sir Alf Ramsey Way	Ipswich District (B)	801 Ipswich NW	38	41	37	47	39
Y	20025	B1067 Bramford Rd / Yarmouth Rd / Ch	Ipswich District (B)	801 Ipswich NW	80	102	96	113	109
Y	20026	A1214 Chevallier St / Norwich Rd	Ipswich District (B)	801 Ipswich NW	98	101	101	101	101
Y	20027	Norwich Rd / A1214 Valley Rd	Ipswich District (B)	801 Ipswich NW	102	110	105	123	118
Y	20028	Norwich Rd / Anglesea Rd	Ipswich District (B)	801 Ipswich NW	72	92	92	93	94
Y	20031	Anglesea Rd / Henley Rd	Ipswich District (B)	801 Ipswich NW	75	98	94	101	100
Y	20034	Soane St / Bolton Ln / St Margaret's Gre	Ipswich District (B)	801 Ipswich NW	15	28	19	102	97
Y	20042	Park Rd / Henley Rd	Ipswich District (B)	801 Ipswich NW	95	106	103	112	112
Y	20043	Dale Hall Ln / A1214	Ipswich District (B)	801 Ipswich NW	97	106	102	111	111

Flagged in Model Run 7?	All	Name	District	Sector	2016 - WorstApproach	2026 NoAdj - WorstApproa	2026 wAdj - WorstApproacl	2036 NoAdj - WorstApproa	2036 wAdj - WorstApproach
Y	20044	A1214 / Henley Road	Ipswich District (B)	801 Ipswich NW	88	105	100	122	115
Y	20261	Henley Rd / Elsmere Rd / Constitution H	Ipswich District (B)	801 Ipswich NW	85	106	102	116	111
Y	20263	Park Rd / Zone Access Link	Ipswich District (B)	801 Ipswich NW	29	28	28	105	100
Y	20264	Valley Rd A1214 / The Avenue	Ipswich District (B)	801 Ipswich NW	75	86	83	92	87
Y	20270	Cotswold Avenue / Dale Hall Lane	Ipswich District (B)	801 Ipswich NW	31	27	25	106	95
Y	20320	B1077 St Margaret's Green / Soane St	Ipswich District (B)	801 Ipswich NW	15	28	19	101	31
N	30118	Whitton Church Lane / Old Norwich Roa	Ipswich District (B)	801 Ipswich NW	47	80	70	100	97
Y	30124	Old Norwich Rd / A1156 Bury Rd	Ipswich District (B)	801 Ipswich NW	103	103	104	103	103
Y	30125	Norwich Rd / White House Rd	Ipswich District (B)	801 Ipswich NW	99	100	101	96	98
Y	30137	A1156 Norwich Road / Deben Road	Ipswich District (B)	801 Ipswich NW	53	73	69	77	75
Y	30142	B1067 / Sproughton Road	Ipswich District (B)	801 Ipswich NW	96	95	94	100	98
Y	30145	Chevallier Street / Bramford Lane	Ipswich District (B)	801 Ipswich NW	56	101	84	115	108
Y	10021	Woodbidge Rd / Argyle Street	Ipswich District (B)	802 Ipswich NE	60	90	75	115	106
Y	20047	A1214 / B1077	Ipswich District (B)	802 Ipswich NE	101	99	95	113	112
Y	20048	A1214 / Tuddenham Road	Ipswich District (B)	802 Ipswich NE	94	100	95	103	103
Y	20057	Woodbridge Rd / Albion Hill / Belvedere	Ipswich District (B)	802 Ipswich NE	97	99	93	100	99
Y	20061	Rushmere Road / Colchester Road	Ipswich District (B)	802 Ipswich NE	76	95	90	102	101
Y	20069	St Helens Street / Spring Rd / Warwick	Ipswich District (B)	802 Ipswich NE	51	85	55	103	66
Y	20070	B1075 St Helen's St / Rope Walk	Ipswich District (B)	802 Ipswich NE	28	59	48	104	69
Y	30274	A1189 Bixley Rd / Chilton Rd	Ipswich District (B)	802 Ipswich NE	58	91	72	105	101
Y	30275	Heath Road / Foxhall Road	Ipswich District (B)	802 Ipswich NE	97	102	101	113	103
Y	30296	A1214 / A1189	Ipswich District (B)	802 Ipswich NE	72	101	94	104	103
N	30298	A1214 Woodbridge Road / Playford Roa	Ipswich District (B)	802 Ipswich NE	89	97	95	100	100
N	30299	A1214 Woodbridge Road / Playford Roa	Ipswich District (B)	802 Ipswich NE	19	74	65	98	101
N	30330	Tuddenham Rd / Humber Doucy Lane	Ipswich District (B)	802 Ipswich NE	51	96	84	99	95
N	30817	Heath Road hospital access	Ipswich District (B)	802 Ipswich NE	65	78	72	103	95
Y	70202	B1075 St Helen's St / Dove St	Ipswich District (B)	802 Ipswich NE	39	100	44	104	104
Y	70203	B1075 St Helen's St / Regent St	Ipswich District (B)	802 Ipswich NE	38	41	42	113	103
Y	70353	B1075 St Helen's St / Jefferies Rd	Ipswich District (B)	802 Ipswich NE	39	42	43	101	39
Y	70377	Bixley Road / Penshurst Rd	Ipswich District (B)	802 Ipswich NE	54	84	59	107	87
Y	10018	Star Lane A1156 / Grimwade Street	Ipswich District (B)	803 Ipswich SE	85	102	96	105	104
Y	20071	Milner St / Rope Walk	Ipswich District (B)	803 Ipswich SE	24	51	35	102	66
Y	30229	Sandy Hill Lane / Landseer Road	Ipswich District (B)	803 Ipswich SE	30	38	33	56	47
Y	30236	Brazier's Wood Rd / Clapgate Ln	Ipswich District (B)	803 Ipswich SE	5	6	6	18	12
Y	30240	Maryon Rd / Nacton Rd	Ipswich District (B)	803 Ipswich SE	89	97	84	103	101
Y	30241	Landseer Road / Nacton Road	Ipswich District (B)	803 Ipswich SE	79	90	83	100	93
Y	30250	Felixstowe Road/King's Way/Cobham R	Ipswich District (B)	803 Ipswich SE	60	72	59	101	95
Y	30253	A1189 Felixstowe Rd / Bucklesham Rd r	Ipswich District (B)	803 Ipswich SE	82	97	91	104	102
Y	30273	A1189 Bixley Rd / Ashdown Way	Ipswich District (B)	803 Ipswich SE	102	104	102	115	104
Y	30663	The Havens (node)	Ipswich District (B)	803 Ipswich SE	97	102	93	100	93
Y	30671	Nacton Rd / Mildmay Rd	Ipswich District (B)	803 Ipswich SE	47	62	55	101	92
Y	30758	Duke Street / Pownall Rd	Ipswich District (B)	803 Ipswich SE	42	48	44	107	52
Y	30760	Fore Hamlet / Pownall Rd	Ipswich District (B)	803 Ipswich SE	78	81	78	103	92
N	30775	Nacton Road / Ransome Rd / Queens W	Ipswich District (B)	803 Ipswich SE	32	41	34	48	42
Y	70001	Duke Street / Coprolite Street	Ipswich District (B)	803 Ipswich SE	33	38	34	111	106
Y	70364	A1156 Fore Hamlet / Isham Pl	Ipswich District (B)	803 Ipswich SE	27	32	29	104	35
Y	30158	A1214 London Rd / Robin Drive	Ipswich District (B)	804 Ipswich SW	99	104	99	116	107
Y	30167	Ranelagh Rd / Ancaster Rd	Ipswich District (B)	804 Ipswich SW	101	104	100	108	106
Y	30171	Gippeswyk Avenue / Ancaster Rd / Kest	Ipswich District (B)	804 Ipswich SW	24	25	24	104	26
Y	30210	B1073 Burrell Rd / Willoughby Rd	Ipswich District (B)	804 Ipswich SW	89	96	84	109	98
Y	30213	Stoke St / Burrell Rd	Ipswich District (B)	804 Ipswich SW	68	88	76	104	87
Y	30214	A137 Vernon St / B1075 Burrell Rd	Ipswich District (B)	804 Ipswich SW	87	97	90	107	100
Y	30215	A137 Vernon St / Mather Way / Hawes	Ipswich District (B)	804 Ipswich SW	58	88	71	101	93
Y	70043	Station Road / Wherstead Road	Ipswich District (B)	804 Ipswich SW	57	57	57	75	59
Y	2325	Ipswich Rd / Poplar Hill	Mid Suffolk District	810 Stowmarket	75	101	100	105	105
Y	2331	A1308 Gipping Way / Hollingsworth Rd	Mid Suffolk District	810 Stowmarket	82	100	93	95	92
Y	2336	B1115 Tavern St / Gipping Way A1308 /	Mid Suffolk District	810 Stowmarket	55	71	61	91	82
N	2357	A1308 / Bury Road / A1308 Tot Hill	Mid Suffolk District	810 Stowmarket	68	85	82	98	97
N	2360	A1308 north of A14, near Chilton Way /	Mid Suffolk District	810 Stowmarket	74	92	89	101	101
Y	2400	A1308 Gipping Way / B1115 Navigation	Mid Suffolk District	810 Stowmarket	72	83	68	82	73
Y	3208	B1077 Stuston Lane / A140	Mid Suffolk District	815 Mid Suffolk North	102	104	104	106	106
Y	3245	A143 Old Bury Road / A143 Scole Stusto	Mid Suffolk District	815 Mid Suffolk North	61	87	87	105	103

Flagged in Model Run 7?	All	Name	District	Sector	2016 - WorstApproach	2026 NoAdj - WorstApproa	2026 wAdj - WorstApproacl	2036 NoAdj - WorstApproa	2036 wAdj - WorstApproach
N	3247	Old Bury Rd / A140 / B1118	Mid Suffolk District	815 Mid Suffolk North	45	71	69	101	100
Y	3928	Castleton Way/ Hospital Access	Mid Suffolk District	815 Mid Suffolk North	44	62	61	90	89
Y	3146	A140 southbound / B1078 Needham Ro	Mid Suffolk District	816 Mid Suffolk Central	68	100	97	102	102
Y	3202	Stowmarket Road / Pains Hill / Angel Hil	Mid Suffolk District	816 Mid Suffolk Central	73	99	93	111	108
Y	3203	A140 Angel Hill / A1120 (West)	Mid Suffolk District	816 Mid Suffolk Central	63	81	78	123	119
Y	3931	Workhouse Rd / Stoke Rd / A140	Mid Suffolk District	816 Mid Suffolk Central	84	96	96	109	108
Y	30343	Henley Rd / Lower Rd	Mid Suffolk District	816 Mid Suffolk Central	50	99	80	118	112
Y	50003	Norwich Rd / Station Rd	Mid Suffolk District	816 Mid Suffolk Central	43	64	58	93	89
Y	30131	B1067 Ship Ln / Paper Mill Ln	Mid Suffolk District	817 Mid Suffolk South	52	88	85	106	104
Y	50025	Bramford Rd B1113 / Bramford Rd	Mid Suffolk District	817 Mid Suffolk South	56	84	85	91	89
N	82010	Bramford Road / Addison Way	Mid Suffolk District	817 Mid Suffolk South	37	50	49	62	60
N	82050	Port One business park access junction (	Mid Suffolk District	817 Mid Suffolk South	0	67	65	75	73
N	1358	Hollow Road, rail bridge	St. Edmundsbury District (B)	811 Bury St Edmunds	65	58	46	100	96
N	2071	A1302 Cullum Road / A143 Out Westgat	St. Edmundsbury District (B)	811 Bury St Edmunds	93	102	100	108	105
N	2080	A143 Compiegne Way / A1101 Out Nort	St. Edmundsbury District (B)	811 Bury St Edmunds	72	99	94	106	104
N	2094	A1101 Out Northgate / Station Hill	St. Edmundsbury District (B)	811 Bury St Edmunds	64	95	93	104	102
N	2111	Southgate Green roundabout (A134 / A	St. Edmundsbury District (B)	811 Bury St Edmunds	91	99	97	108	103
N	2116	Southgate Street / Baker's Lane	St. Edmundsbury District (B)	811 Bury St Edmunds	8	16	14	25	26
N	2117	Southgate Street / Maynewater Lane	St. Edmundsbury District (B)	811 Bury St Edmunds	31	39	38	69	73
N	2141	A143 Out Westgate / Vinery Road	St. Edmundsbury District (B)	811 Bury St Edmunds	78	96	89	102	99
N	2221	A1101 Mildenhall Road / Tollgate Lane	St. Edmundsbury District (B)	811 Bury St Edmunds	65	70	66	77	72
N	2265	Mount Road / Barton Road	St. Edmundsbury District (B)	811 Bury St Edmunds	54	59	57	79	73
N	2267	Orttewell Road / Barton Road	St. Edmundsbury District (B)	811 Bury St Edmunds	90	102	101	116	114
N	2306	Bedingfield Road / Easlea Road	St. Edmundsbury District (B)	811 Bury St Edmunds	70	93	88	101	101
N	2309	Crown Street / Westgate Street	St. Edmundsbury District (B)	811 Bury St Edmunds	56	84	74	101	101
N	2311	Mustow Street / Northgate Street	St. Edmundsbury District (B)	811 Bury St Edmunds	88	93	88	104	91
N	3399	Eastgate Street / The Vinefields	St. Edmundsbury District (B)	811 Bury St Edmunds	95	97	94	96	101
N	3860	Mustow Street / Cotton Lane	St. Edmundsbury District (B)	811 Bury St Edmunds	25	39	36	43	42
N	6506	Mount Road / Shackeroo Road	St. Edmundsbury District (B)	811 Bury St Edmunds	0	58	55	55	61
N	2544	A143 Sturmer Road / B1057 Bumpstead	St. Edmundsbury District (B)	814 Haverhill	59	68	62	83	75
N	1308	Newmarket Road rail bridge, south of A	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	104	107	105	109	108
N	2133	A134 Sicklesmere Road / Bury Road - Lo	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	35	46	44	73	55
N	2180	Hill Road / Westley Road / Westley Lane	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	44	73	65	100	93
N	2235	Thetford Road / Barton Hill	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	48	55	51	85	79
N	2242	A143 Compiene Way / A134	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	74	84	78	101	98
N	2250	A134 / B1106 Barton Bottom	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	66	88	84	103	103
N	2257	A143 / School Road / East Barton Road	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	41	48	48	47	47
N	2258	A143 The Street / Mill Road - Great Bart	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	45	55	54	58	58
N	2283	Mount Road / Sow Lane	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	40	66	62	107	104
N	2284	Mount Road / Sow Lane / East Barton R	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	51	80	75	101	101
N	2612	A1307 / A1017	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	54	70	68	83	82
N	3264	Stanton Road / A1088 - Ixworth	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	85	104	103	108	108
N	3325	A143 / Stow Road	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	71	88	88	108	107
N	3815	A134 / Culford Road	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	59	97	91	95	96
N	3821	Culford Road / Lark Valley Drive	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	75	60	58	75	76
N	3855	A134 / Station Road / The Street at Barr	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	70	91	85	105	105
N	5919	A143 / Thurston Road / Brand Road	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	66	101	99	110	110
N	70515	Chilton Woods development eastern ac	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	0	81	78	101	100
N	85020	A143 / Bury Road	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	88	101	101	104	103
N	85022	A143 / Unclassified Road (near Bury Roa	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	74	85	84	100	99
Y	3182	Chantry Rd / South Entrance / Church H	Suffolk Coastal District	807 Saxmundham	84	100	99	101	100
Y	3159	A1152 / Melton Rd / The Street	Suffolk Coastal District	808 Woodbridge/Melton	93	105	104	117	114
Y	5456	A1152 / Station Rd	Suffolk Coastal District	808 Woodbridge/Melton	93	102	102	103	103
Y	5885	A1152 Wilford Bridge Rd / Melton Static	Suffolk Coastal District	808 Woodbridge/Melton	45	49	48	104	101
Y	6014	B1438 / California / Old Barrack Rd	Suffolk Coastal District	808 Woodbridge/Melton	58	66	61	83	81
Y	6019	Manor Rd / A12 Grove Rd	Suffolk Coastal District	808 Woodbridge/Melton	70	86	82	102	99
N	50051	A12 single carriageway between B1078	Suffolk Coastal District	808 Woodbridge/Melton	94	99	98	101	100
Y	50052	A12 (near A12 / B1079)	Suffolk Coastal District	808 Woodbridge/Melton	70	95	91	102	103
Y	50053	A12 / Grundisburgh Road	Suffolk Coastal District	808 Woodbridge/Melton	101	105	104	107	106
Y	2866	Langer Road / Beach Station Road - Felix	Suffolk Coastal District	809 Felixstowe	50	69	61	82	69
Y	2881	Mill Lane /Garrison Lane / Crescent Roa	Suffolk Coastal District	809 Felixstowe	97	92	75	96	85
Y	2910	A154 Garrison Lane/ High Rd West	Suffolk Coastal District	809 Felixstowe	106	101	95	104	100

Flagged in Model Run 7?	All	Name	District	Sector	2016 - WorstApproach	2026 NoAdj - WorstApproa	2026 wAdj - WorstApproacl	2036 NoAdj - WorstApproa	2036 wAdj - WorstApproach
Y	85000	Candlet Rd / Zone Access	Suffolk Coastal District	809 Felixstowe	0	79	62	93	84
Y	85004	Candlet Rd / Zone Access	Suffolk Coastal District	809 Felixstowe	0	80	75	96	93
Y	3328	A12 / A145	Suffolk Coastal District	821 Suffolk Coastal North	56	84	83	103	103
N	2995	A12 / Scott's Lane	Suffolk Coastal District	822 Suffolk Coastal Central	82	80	77	108	107
Y	3152	B1078 / B1079 Grundisburgh	Suffolk Coastal District	822 Suffolk Coastal Central	50	93	82	111	107
Y	3153	B1079 Church Road / B1078 Swilland Rc	Suffolk Coastal District	822 Suffolk Coastal Central	80	104	101	113	110
Y	3158	A12 / Woods Lane	Suffolk Coastal District	822 Suffolk Coastal Central	89	105	104	116	114
Y	50055	B1079 Grundisburgh Rd / Mid Link	Suffolk Coastal District	822 Suffolk Coastal Central	64	100	95	103	103
N	30331	Tuddenham Road / Church Lane	Suffolk Coastal District	823 Suffolk Coastal South West	42	62	64	100	100
Y	30332	Lower Rd / Church Lane / Westerfield R	Suffolk Coastal District	823 Suffolk Coastal South West	78	106	102	117	112
Y	1906	A12 / Foxhall Road / Newbourne Road	Suffolk Coastal District	832 Kesgrave/Martlesham/Rushm*	0	88	75	104	99
Y	30308	Main Rd / Felixstowe Rd	Suffolk Coastal District	832 Kesgrave/Martlesham/Rushm*	25	34	30	45	40
Y	30309	Bealings Rd / School Ln / Main Rd /The S	Suffolk Coastal District	832 Kesgrave/Martlesham/Rushm*	62	86	76	103	99
Y	30406	A12 / A1214 Roundabout – A1214 EB er	Suffolk Coastal District	832 Kesgrave/Martlesham/Rushm*	76	95	88	104	100
Y	30256	Felixstowe Road / Ransomes Way	Suffolk Coastal District	833 Suffolk Coastal South	63	94	85	101	100

Appendix B - Links with V/C over 100% (SCC Highway)

PM

Flagged in Model Run 7?	All	Name	District	Sector	2016 - WorstApproach	2026 NoAdj - WorstApproa	2026 wAdj - WorstApproacl	2036 NoAdj - WorstApproa	2036 wAdj - WorstApproacl
Y	2678	A131 / Newton Rd	Babergh District	813 Sudbury	65	75	70	93	85
Y	2779	Milner Rd / Mid Link	Babergh District	813 Sudbury	44	50	46	58	53
N	2780	Northern Road / Milner Road	Babergh District	813 Sudbury	48	55	51	60	57
Y	2785	A131 Cross St / B1115 Church St	Babergh District	813 Sudbury	104	113	111	118	117
Y	3540	A131 / Bulmer Rd / Middleton Rd	Babergh District	813 Sudbury	81	100	99	115	110
Y	3316	A134 / A1141	Babergh District	818 Babergh West	60	65	66	63	66
N	3548	B1115 Heath Road / Tentree Road	Babergh District	818 Babergh West	61	79	76	96	95
Y	2787	A134 Sudbury Road / Boxford Lane	Babergh District	819 Babergh Central	105	108	108	110	110
Y	3130	A1071 / A1141 Stone St	Babergh District	819 Babergh Central	29	45	42	59	58
Y	5834	A134 Sudbury Road / Valley Road	Babergh District	819 Babergh Central	81	99	98	105	106
N	50039	London Road / Church Lane	Babergh District	819 Babergh Central	29	62	56	100	95
Y	5732	A1214 SB (south of Scrivener Drive Rou	Babergh District	820 Babergh East	98	104	102	109	106
Y	5805	A137 (near Brantham)	Babergh District	820 Babergh East	30	96	95	118	114
Y	30135	B1113 / Lower Street / High Street	Babergh District	820 Babergh East	71	91	88	103	102
Y	30155	A1214 London / A1071 / Scrivener Dr	Babergh District	820 Babergh East	75	89	86	102	100
Y	30161	Scrivener Drive / Shepherd Drive Round	Babergh District	820 Babergh East	97	99	98	104	102
Y	30223	Buck's Horns Ln / Grove Hill	Babergh District	820 Babergh East	45	94	87	100	100
Y	30224	Buck's Horns Lane	Babergh District	820 Babergh East	45	94	87	103	100
Y	30225	Buck's Horns Lane/Church Lane	Babergh District	820 Babergh East	45	94	87	116	112
Y	50034	B1113 / A1071	Babergh District	820 Babergh East	84	107	105	124	120
Y	80405	A137 Brantham Hill / Palfrey Heights	Babergh District	820 Babergh East	0	95	95	100	100
N	2181	Westley Road / Westley Lane	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	44	57	55	72	64
Y	10001	A1156 / Civic Drive	Ipswich District (B)	800 Ipswich Central	77	92	82	109	101
Y	10002	A1071 / Civic Drive	Ipswich District (B)	800 Ipswich Central	99	103	100	110	106
Y	10004	Princes St / Civic Dr / Franciscan Way	Ipswich District (B)	800 Ipswich Central	56	86	61	102	95
Y	10007	Grey Friars Rd / Star Ln / College St / Bri	Ipswich District (B)	800 Ipswich Central	74	102	100	102	102
Y	10008	A137 Grafton Way / Bridge St	Ipswich District (B)	800 Ipswich Central	48	69	56	89	81
Y	10009	Bridge St / College St	Ipswich District (B)	800 Ipswich Central	95	102	101	102	102
Y	10010	A1022 College St / Bridge St (by St Peter	Ipswich District (B)	800 Ipswich Central	71	101	82	104	104
Y	10011	College Street / Foundation St	Ipswich District (B)	800 Ipswich Central	74	75	80	107	104
N	10013	Lower Orwell Street / Key Street	Ipswich District (B)	800 Ipswich Central	60	63	64	103	60
Y	10020	St Helens Street / Grimwade St / Argyl	Ipswich District (B)	800 Ipswich Central	71	98	87	102	102
Y	10022	Woodbridge Rd / Christchurch St	Ipswich District (B)	800 Ipswich Central	74	89	82	98	96
Y	10024	Great Colman St / A1156 St Margaret's	Ipswich District (B)	800 Ipswich Central	74	87	76	104	96
Y	10027	Margaret's St / Northgate St	Ipswich District (B)	800 Ipswich Central	56	96	77	101	101
N	10042	Star Lane / Foundation Street / Lower B	Ipswich District (B)	800 Ipswich Central	67	81	74	102	79
Y	10049	Bond Street / St Margaret's Street	Ipswich District (B)	800 Ipswich Central	57	81	66	89	85
N	10050	A1156 Bond Street / Rope Walk / Eagle	Ipswich District (B)	800 Ipswich Central	45	93	80	108	98
N	10056	Star Lane / Slade Street	Ipswich District (B)	800 Ipswich Central	97	102	100	103	104
N	10057	Lower Orwell Street / Star Lane	Ipswich District (B)	800 Ipswich Central	56	67	61	104	62
Y	10061	Grimwade Street / Fore Street 2	Ipswich District (B)	800 Ipswich Central	93	103	101	106	106
N	10063	Old Foundry Road / Great Colman Stree	Ipswich District (B)	800 Ipswich Central	9	10	8	9	9
Y	10067	Northgate Street / Old Foundry Road	Ipswich District (B)	800 Ipswich Central	10	15	13	110	101
N	10068	Star Lane / Fore Street	Ipswich District (B)	800 Ipswich Central	55	96	61	106	100
N	10094	Star Lane / Car park access	Ipswich District (B)	800 Ipswich Central	56	67	61	102	62
Y	10115	College Street / Foundry Lane	Ipswich District (B)	800 Ipswich Central	73	92	79	103	103
Y	20003	B1075 Princes St / Portman Rd	Ipswich District (B)	800 Ipswich Central	66	100	79	101	100
Y	20012	Westend Rd / Portman's Walk	Ipswich District (B)	800 Ipswich Central	94	100	97	102	99
Y	20072	Back Hamlet / Fore Hamlet / Duck St	Ipswich District (B)	800 Ipswich Central	56	63	62	110	107
Y	70033	St Peter's Dock / Foundry Ln	Ipswich District (B)	800 Ipswich Central	3	8	7	17	14
Y	5637	Valley Rd A1214 / Graham Avenue	Ipswich District (B)	801 Ipswich NW	58	102	97	103	103
Y	20016	Portman Road / Handford Road	Ipswich District (B)	801 Ipswich NW	89	101	96	105	104
Y	20017	Portman Road / Sir Alf Ramsey Way	Ipswich District (B)	801 Ipswich NW	74	92	74	107	87
Y	20025	B1067 Bramford Rd / Yarmouth Rd / Ch	Ipswich District (B)	801 Ipswich NW	74	99	89	108	103
Y	20026	A1214 Chevallier St / Norwich Rd	Ipswich District (B)	801 Ipswich NW	100	104	102	104	104
Y	20027	Norwich Rd / A1214 Valley Rd	Ipswich District (B)	801 Ipswich NW	98	102	100	110	106
Y	20028	Norwich Rd / Anglesea Rd	Ipswich District (B)	801 Ipswich NW	58	101	70	103	101
Y	20031	Anglesea Rd / Henley Rd	Ipswich District (B)	801 Ipswich NW	99	101	100	103	102
Y	20034	Soane St / Bolton Ln / St Margaret's Gre	Ipswich District (B)	801 Ipswich NW	13	27	18	32	28
Y	20042	Park Rd / Henley Rd	Ipswich District (B)	801 Ipswich NW	69	87	82	112	107
Y	20043	Dale Hall Ln / A1214	Ipswich District (B)	801 Ipswich NW	90	105	102	108	108

Flagged in Model Run 7?	All	Name	District	Sector	2016 - WorstApproach	2026 NoAdj - WorstApproa	2026 wAdj - WorstApproacl	2036 NoAdj - WorstApproa	2036 wAdj - WorstApproacl
Y	20044	A1214 / Henley Road	Ipswich District (B)	801 Ipswich NW	88	99	77	116	109
Y	20261	Henley Rd / Elsmere Rd / Constitution H	Ipswich District (B)	801 Ipswich NW	64	94	93	113	106
Y	20263	Park Rd / Zone Access Link	Ipswich District (B)	801 Ipswich NW	33	36	35	90	38
Y	20264	Valley Rd A1214 / The Avenue	Ipswich District (B)	801 Ipswich NW	77	91	81	101	99
Y	20270	Cotswold Avenue / Dale Hall Lane	Ipswich District (B)	801 Ipswich NW	26	31	29	73	35
Y	20320	B1077 St Margaret's Green / Soane St	Ipswich District (B)	801 Ipswich NW	9	18	12	20	18
N	30118	Whitton Church Lane / Old Norwich Roa	Ipswich District (B)	801 Ipswich NW	66	82	77	90	85
Y	30124	Old Norwich Rd / A1156 Bury Rd	Ipswich District (B)	801 Ipswich NW	96	100	100	103	101
Y	30125	Norwich Rd / White House Rd	Ipswich District (B)	801 Ipswich NW	65	93	92	101	99
Y	30137	A1156 Norwich Road / Deben Road	Ipswich District (B)	801 Ipswich NW	60	86	78	101	96
Y	30142	B1067 / Sproughton Road	Ipswich District (B)	801 Ipswich NW	86	90	84	97	94
Y	30145	Chevallier Street / Bramford Lane	Ipswich District (B)	801 Ipswich NW	40	68	48	103	95
Y	10021	Woodbidge Rd / Argyle Street	Ipswich District (B)	802 Ipswich NE	40	75	63	106	102
Y	20047	A1214 / B1077	Ipswich District (B)	802 Ipswich NE	87	88	78	102	101
Y	20048	A1214 / Tuddenham Road	Ipswich District (B)	802 Ipswich NE	82	90	70	102	100
Y	20057	Woodbridge Rd / Albion Hill / Belvedere	Ipswich District (B)	802 Ipswich NE	94	99	97	101	101
Y	20061	Rushmere Road / Colchester Road	Ipswich District (B)	802 Ipswich NE	83	100	94	101	101
Y	20069	St Helens Street / Spring Rd / Warwick	Ipswich District (B)	802 Ipswich NE	55	46	83	98	99
Y	20070	B1075 St Helen's St / Rope Walk	Ipswich District (B)	802 Ipswich NE	41	62	52	80	69
Y	30274	A1189 Bixley Rd / Chilton Rd	Ipswich District (B)	802 Ipswich NE	57	88	73	97	91
Y	30275	Heath Road / Foxhall Road	Ipswich District (B)	802 Ipswich NE	88	100	94	102	100
Y	30296	A1214 / A1189	Ipswich District (B)	802 Ipswich NE	80	100	92	109	103
N	30298	A1214 Woodbridge Road / Playford Roa	Ipswich District (B)	802 Ipswich NE	96	99	98	100	100
N	30299	A1214 Woodbridge Road / Playford Roa	Ipswich District (B)	802 Ipswich NE	67	92	85	100	95
N	30330	Tuddenham Rd / Humber Doucy Lane	Ipswich District (B)	802 Ipswich NE	40	80	69	100	97
N	30817	Heath Road hospital access	Ipswich District (B)	802 Ipswich NE	27	26	23	29	26
Y	70202	B1075 St Helen's St / Dove St	Ipswich District (B)	802 Ipswich NE	26	37	33	102	101
Y	70203	B1075 St Helen's St / Regent St	Ipswich District (B)	802 Ipswich NE	26	33	32	90	34
Y	70353	B1075 St Helen's St / Jefferies Rd	Ipswich District (B)	802 Ipswich NE	28	35	34	34	33
Y	70377	Bixley Road / Penshurst Rd	Ipswich District (B)	802 Ipswich NE	48	59	53	66	67
Y	10018	Star Lane A1156 / Grimwade Street	Ipswich District (B)	803 Ipswich SE	87	97	91	97	98
Y	20071	Milner St / Rope Walk	Ipswich District (B)	803 Ipswich SE	26	67	42	101	91
Y	30229	Sandy Hill Lane / Landseer Road	Ipswich District (B)	803 Ipswich SE	46	56	48	104	85
Y	30236	Brazier's Wood Rd / Clapgate Ln	Ipswich District (B)	803 Ipswich SE	14	49	24	105	96
Y	30240	Maryon Rd / Nacton Rd	Ipswich District (B)	803 Ipswich SE	101	82	77	98	92
Y	30241	Landseer Road / Nacton Road	Ipswich District (B)	803 Ipswich SE	84	103	102	103	103
Y	30250	Felixstowe Road/King's Way/Cobham R	Ipswich District (B)	803 Ipswich SE	76	94	91	100	94
Y	30253	A1189 Felixstowe Rd / Bucklesham Rd r	Ipswich District (B)	803 Ipswich SE	77	78	72	101	94
Y	30273	A1189 Bixley Rd / Ashdown Way	Ipswich District (B)	803 Ipswich SE	58	80	66	101	94
Y	30663	The Havens (node)	Ipswich District (B)	803 Ipswich SE	33	36	33	36	34
Y	30671	Nacton Rd / Mildmay Rd	Ipswich District (B)	803 Ipswich SE	58	98	64	104	98
Y	30758	Duke Street / Pownall Rd	Ipswich District (B)	803 Ipswich SE	48	54	48	76	56
Y	30760	Fore Hamlet / Pownall Rd	Ipswich District (B)	803 Ipswich SE	79	84	79	101	92
N	30775	Nacton Road / Ransome Rd / Queens W	Ipswich District (B)	803 Ipswich SE	22	39	38	100	50
Y	70001	Duke Street / Coprolite Street	Ipswich District (B)	803 Ipswich SE	37	47	38	109	102
Y	70364	A1156 Fore Hamlet / Isham Pl	Ipswich District (B)	803 Ipswich SE	32	32	31	94	36
Y	30158	A1214 London Rd / Robin Drive	Ipswich District (B)	804 Ipswich SW	51	49	47	53	51
Y	30167	Ranelagh Rd / Ancaster Rd	Ipswich District (B)	804 Ipswich SW	72	89	76	94	93
Y	30171	Gippeswyk Avenue / Ancaster Rd / Kest	Ipswich District (B)	804 Ipswich SW	28	32	29	34	31
Y	30210	B1073 Burrell Rd / Willoughby Rd	Ipswich District (B)	804 Ipswich SW	53	64	52	75	66
Y	30213	Stoke St / Burrell Rd	Ipswich District (B)	804 Ipswich SW	67	84	73	94	94
Y	30214	A137 Vernon St / B1075 Burrell Rd	Ipswich District (B)	804 Ipswich SW	58	73	63	88	82
Y	30215	A137 Vernon St / Mather Way / Hawes	Ipswich District (B)	804 Ipswich SW	44	52	54	59	57
Y	70043	Station Road / Wherstead Road	Ipswich District (B)	804 Ipswich SW	34	53	45	65	60
Y	2325	Ipswich Rd / Poplar Hill	Mid Suffolk District	810 Stowmarket	45	63	58	81	73
Y	2331	A1308 Gipping Way / Hollingsworth Rd	Mid Suffolk District	810 Stowmarket	83	92	76	101	100
Y	2336	B1115 Tavern St / Gipping Way A1308 /	Mid Suffolk District	810 Stowmarket	67	81	73	88	101
N	2357	A1308 / Bury Road / A1308 Tot Hill	Mid Suffolk District	810 Stowmarket	98	102	102	106	105
N	2360	A1308 north of A14, near Chilton Way /	Mid Suffolk District	810 Stowmarket	87	90	90	93	93
Y	2400	A1308 Gipping Way / B1115 Navigation	Mid Suffolk District	810 Stowmarket	97	101	98	102	101
Y	3208	B1077 Stuston Lane / A140	Mid Suffolk District	815 Mid Suffolk North	72	99	96	104	104
Y	3245	A143 Old Bury Road / A143 Scole Stusto	Mid Suffolk District	815 Mid Suffolk North	58	72	71	90	88

Flagged in Model Run 7?	AII	Name	District	Sector	2016 - WorstApproach	2026 NoAdj - WorstApproa	2026 wAdj - WorstApproacl	2036 NoAdj - WorstApproa	2036 wAdj - WorstApproacl
N	3247	Old Bury Rd / A140 / B1118	Mid Suffolk District	815 Mid Suffolk North	46	56	55	71	67
Y	3928	Castleton Way/ Hospital Access	Mid Suffolk District	815 Mid Suffolk North	73	89	89	109	108
Y	3146	A140 southbound / B1078 Needham Ro	Mid Suffolk District	816 Mid Suffolk Central	65	101	97	102	102
Y	3202	Stowmarket Road / Pains Hill / Angel Hil	Mid Suffolk District	816 Mid Suffolk Central	66	93	89	106	103
Y	3203	A140 Angel Hill / A1120 (West)	Mid Suffolk District	816 Mid Suffolk Central	62	74	72	107	107
Y	3931	Workhouse Rd / Stoke Rd / A140	Mid Suffolk District	816 Mid Suffolk Central	85	99	98	106	105
Y	30343	Henley Rd / Lower Rd	Mid Suffolk District	816 Mid Suffolk Central	40	85	68	112	107
Y	50003	Norwich Rd / Station Rd	Mid Suffolk District	816 Mid Suffolk Central	69	95	93	111	108
Y	30131	B1067 Ship Ln / Paper Mill Ln	Mid Suffolk District	817 Mid Suffolk South	30	60	53	74	73
Y	50025	Bramford Rd B1113 / Bramford Rd	Mid Suffolk District	817 Mid Suffolk South	64	89	85	103	100
N	82010	Bramford Road / Addison Way	Mid Suffolk District	817 Mid Suffolk South	27	70	67	111	106
N	82050	Port One business park access junction (	Mid Suffolk District	817 Mid Suffolk South	0	97	96	114	108
N	1358	Hollow Road, rail bridge	St. Edmundsbury District (B)	811 Bury St Edmunds	92	105	101	117	111
N	2071	A1302 Cullum Road / A143 Out Westgat	St. Edmundsbury District (B)	811 Bury St Edmunds	86	101	94	109	104
N	2080	A143 Compiegne Way / A1101 Out Nort	St. Edmundsbury District (B)	811 Bury St Edmunds	68	87	74	103	98
N	2094	A1101 Out Northgate / Station Hill	St. Edmundsbury District (B)	811 Bury St Edmunds	72	90	89	98	95
N	2111	Southgate Green roundabout (A134 / A	St. Edmundsbury District (B)	811 Bury St Edmunds	98	104	102	113	108
N	2116	Southgate Street / Baker's Lane	St. Edmundsbury District (B)	811 Bury St Edmunds	30	103	100	111	107
N	2117	Southgate Street / Maynewater Lane	St. Edmundsbury District (B)	811 Bury St Edmunds	100	101	101	101	101
N	2141	A143 Out Westgate / Vinery Road	St. Edmundsbury District (B)	811 Bury St Edmunds	93	98	93	106	102
N	2221	A1101 Mildenhall Road / Tollgate Lane	St. Edmundsbury District (B)	811 Bury St Edmunds	90	98	95	101	100
N	2265	Mount Road / Barton Road	St. Edmundsbury District (B)	811 Bury St Edmunds	87	84	79	92	85
N	2267	Orttewell Road / Barton Road	St. Edmundsbury District (B)	811 Bury St Edmunds	102	111	109	136	132
N	2306	Bedingfield Road / Easlea Road	St. Edmundsbury District (B)	811 Bury St Edmunds	75	72	67	75	72
N	2309	Crown Street / Westgate Street	St. Edmundsbury District (B)	811 Bury St Edmunds	85	80	73	78	71
N	2311	Mustow Street / Northgate Street	St. Edmundsbury District (B)	811 Bury St Edmunds	75	106	103	107	108
N	3399	Eastgate Street / The Vinefields	St. Edmundsbury District (B)	811 Bury St Edmunds	73	64	63	73	65
N	3860	Mustow Street / Cotton Lane	St. Edmundsbury District (B)	811 Bury St Edmunds	24	26	25	113	111
N	6506	Mount Road / Shackeroo Road	St. Edmundsbury District (B)	811 Bury St Edmunds	0	64	57	100	100
N	2544	A143 Sturmer Road / B1057 Bumpstead	St. Edmundsbury District (B)	814 Haverhill	71	86	79	100	100
N	1308	Newmarket Road rail bridge, south of A	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	92	99	96	102	101
N	2133	A134 Sicklesmere Road / Bury Road - Lo	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	50	101	95	105	104
N	2180	Hill Road / Westley Road / Westley Lane	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	65	90	80	103	100
N	2235	Thetford Road / Barton Hill	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	67	96	92	100	100
N	2242	A143 Compiene Way / A134	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	74	87	84	95	94
N	2250	A134 / B1106 Barton Bottom	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	69	84	82	94	92
N	2257	A143 / School Road / East Barton Road	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	44	47	46	102	96
N	2258	A143 The Street / Mill Road - Great Bart	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	77	101	100	102	102
N	2283	Mount Road / Sow Lane	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	46	74	71	101	101
N	2284	Mount Road / Sow Lane / East Barton R	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	49	101	100	113	111
N	2612	A1307 / A1017	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	96	100	100	100	100
N	3264	Stanton Road / A1088 - Ixworth	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	100	105	105	108	108
N	3325	A143 / Stow Road	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	69	86	85	101	101
N	3815	A134 / Culford Road	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	73	95	92	101	101
N	3821	Culford Road / Lark Valley Drive	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	37	37	35	44	46
N	3855	A134 / Station Road / The Street at Barr	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	95	108	107	114	114
N	5919	A143 / Thurston Road / Brand Road	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	80	100	98	108	107
N	70515	Chilton Woods development eastern ac	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	0	75	74	98	98
N	85020	A143 / Bury Road	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	81	94	94	92	93
N	85022	A143 / Unclassified Road (near Bury Roa	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	63	89	86	100	100
Y	3182	Chantry Rd / South Entrance / Church H	Suffolk Coastal District	807 Saxmundham	79	93	92	96	95
Y	3159	A1152 / Melton Rd / The Street	Suffolk Coastal District	808 Woodbridge/Melton	88	108	105	116	112
Y	5456	A1152 / Station Rd	Suffolk Coastal District	808 Woodbridge/Melton	89	91	94	89	93
Y	5885	A1152 Wilford Bridge Rd / Melton Static	Suffolk Coastal District	808 Woodbridge/Melton	43	45	45	46	46
Y	6014	B1438 / California / Old Barrack Rd	Suffolk Coastal District	808 Woodbridge/Melton	92	106	95	117	113
Y	6019	Manor Rd / A12 Grove Rd	Suffolk Coastal District	808 Woodbridge/Melton	75	78	79	82	82
N	50051	A12 single carriageway between B1078	Suffolk Coastal District	808 Woodbridge/Melton	75	87	85	89	89
Y	50052	A12 (near A12 / B1079)	Suffolk Coastal District	808 Woodbridge/Melton	87	98	97	104	103
Y	50053	A12 / Grundisburgh Road	Suffolk Coastal District	808 Woodbridge/Melton	84	102	100	111	107
Y	2866	Langer Road / Beach Station Road - Felix	Suffolk Coastal District	809 Felixstowe	93	96	94	103	96
Y	2881	Mill Lane /Garrison Lane / Crescent Roa	Suffolk Coastal District	809 Felixstowe	68	94	81	106	100
Y	2910	A154 Garrison Lane/ High Rd West	Suffolk Coastal District	809 Felixstowe	96	101	97	111	104

Flagged in Model Run 7?	All	Name	District	Sector	2016 - WorstApproach	2026 NoAdj - WorstApproa	2026 wAdj - WorstApproacl	2036 NoAdj - WorstApproa	2036 wAdj - WorstApproacl
Y	85000	Candlet Rd / Zone Access	Suffolk Coastal District	809 Felixstowe	0	95	90	108	103
Y	85004	Candlet Rd / Zone Access	Suffolk Coastal District	809 Felixstowe	0	99	99	102	102
Y	3328	A12 / A145	Suffolk Coastal District	821 Suffolk Coastal North	56	75	74	93	92
N	2995	A12 / Scott's Lane	Suffolk Coastal District	822 Suffolk Coastal Central	61	72	71	86	80
Y	3152	B1078 / B1079 Grundisburgh	Suffolk Coastal District	822 Suffolk Coastal Central	39	63	53	106	100
Y	3153	B1079 Church Road / B1078 Swilland Rc	Suffolk Coastal District	822 Suffolk Coastal Central	60	90	85	103	101
Y	3158	A12 / Woods Lane	Suffolk Coastal District	822 Suffolk Coastal Central	80	93	92	102	97
Y	50055	B1079 Grundisburgh Rd / Mid Link	Suffolk Coastal District	822 Suffolk Coastal Central	60	101	96	104	104
N	30331	Tuddenham Road / Church Lane	Suffolk Coastal District	823 Suffolk Coastal South West	27	51	40	62	70
Y	30332	Lower Rd / Church Lane / Westerfield R	Suffolk Coastal District	823 Suffolk Coastal South West	53	98	86	106	103
Y	1906	A12 / Foxhall Road / Newbourne Road	Suffolk Coastal District	832 Kesgrave/Martlesham/Rushm*	0	62	60	69	68
Y	30308	Main Rd / Felixstowe Rd	Suffolk Coastal District	832 Kesgrave/Martlesham/Rushm*	70	88	77	101	91
Y	30309	Bealings Rd / School Ln / Main Rd /The S	Suffolk Coastal District	832 Kesgrave/Martlesham/Rushm*	48	65	62	72	72
Y	30406	A12 / A1214 Roundabout – A1214 EB er	Suffolk Coastal District	832 Kesgrave/Martlesham/Rushm*	63	72	69	83	78
Y	30256	Felixstowe Road / Ransomes Way	Suffolk Coastal District	833 Suffolk Coastal South	60	80	74	87	86

Appendix B - Links with V/C over 100% (SCC Highway & SRN)

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Flagged in Model Run 7?	All	Name	District	Sector	2016 - WorstApproach	2026 NoAdj - WorstApproa	2026 wAdj - WorstApproac	2036 NoAdj - WorstApp	2036 wAdj - WorstAppr
Y	3110	B1070 / A12 Slip Rd (North)	Babergh District	819 Babergh Central	30	60	52	106	105
Y	30029	Sproughton Rd / A14 southbound ramps	Babergh District	820 Babergh East	61	90	80	108	103
Y	30061	A137 / A14 northbound offslip	Babergh District	820 Babergh East	86	75	83	76	70
Y	30062	A137 / A14	Babergh District	820 Babergh East	82	116	109	126	126
Y	30796	A14 / A12 (Copdock) - A14 WB Slip Node	Babergh District	820 Babergh East	105	114	112	114	114
Y	30010	A1156 / A 14 SB OffSlip	Ipswich District (B)	801 Ipswich NW	75	93	89	100	98
Y	30079	Nacton Rd A1189 / The Havens / A14 Sli	Ipswich District (B)	803 Ipswich SE	109	112	110	115	115
N	2405	A14 / A1120 SW of J50	Mid Suffolk District	816 Mid Suffolk Central	67	82	81	90	88
N	2411	A14 / A1120 - northeast circulating	Mid Suffolk District	816 Mid Suffolk Central	88	99	98	100	100
N	5755	A14 / Kettle Lane NW of J51	Mid Suffolk District	816 Mid Suffolk Central	75	89	87	92	92
Y	50014	Ipswich Rd / A14 SB Offslip	Mid Suffolk District	816 Mid Suffolk Central	41	94	89	102	102
N	50018	A14 / Paper Mill Lane (J52) southern ap	Mid Suffolk District	816 Mid Suffolk Central	56	94	90	102	101
N	5776	A14 / Tostock Road offslip westbound	Mid Suffolk District	817 Mid Suffolk South	83	95	94	100	100
N	2082	Compiegne Way / A14 J43 circulatory	St. Edmundsbury District (B)	811 Bury St Edmunds	63	76	72	75	73
N	2087	A143 / A14 J43 circulatory	St. Edmundsbury District (B)	811 Bury St Edmunds	67	82	79	95	93
N	2288	Sow Lane / A14 westbound slip roads	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	50	47	47	71	64
N	5768	A14 / Unnamed Road (westbound merg	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	85	95	95	107	104
Y	85021	A14 / Croft Lane (A14 EB J58 to J59)	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	59	84	80	101	101
Y	80409	Dock Spur Roundabout (A154 approach	Suffolk Coastal District	809 Felixstowe	63	99	98	102	101
Y	30044	A14 / A12 Seven Hills roundabout Buckl	Suffolk Coastal District	833 Suffolk Coastal South	74	96	91	103	100
N	30096	A12 / A14 Junction 58	Suffolk Coastal District	833 Suffolk Coastal South	101	101	100	98	100
N	30097	A14 J58 - Bucklesham Road approach	Suffolk Coastal District	833 Suffolk Coastal South	75	95	91	100	99
Y	30098	A14 / A12 - A1156 Entry	Suffolk Coastal District	833 Suffolk Coastal South	104	85	84	95	92

Appendix B - Links with V/C over 100% (SCC Highway & SRN) PM

Flagged in Model Run 7?	All	Name	District	Sector	2016 - WorstApproach	2026 NoAdj - WorstApproac	2026 wAdj - WorstApproacl	2036 NoAdj - WorstApproac	2036 wAdj - WorstAppro
Y	3110	B1070 / A12 Slip Rd (North)	Babergh District	819 Babergh Central	40	80	74	104	102
Y	30029	Sproughton Rd / A14 southbound ramps	Babergh District	820 Babergh East	61	82	75	100	91
Y	30061	A137 / A14 northbound offslip	Babergh District	820 Babergh East	77	105	100	115	108
Y	30062	A137 / A14	Babergh District	820 Babergh East	86	110	108	114	114
Y	30796	A14 / A12 (Copdock) - A14 WB Slip Node	Babergh District	820 Babergh East	83	78	77	82	77
Y	30010	A1156 / A 14 SB OffSlip	Ipswich District (B)	801 Ipswich NW	89	101	100	104	103
Y	30079	Nacton Rd A1189 / The Havens / A14 Sli	Ipswich District (B)	803 Ipswich SE	78	94	87	82	70
N	2405	A14 / A1120 SW of J50	Mid Suffolk District	816 Mid Suffolk Central	86	97	96	101	100
N	2411	A14 / A1120 - northeast circulating	Mid Suffolk District	816 Mid Suffolk Central	75	87	86	92	89
N	5755	A14 / Kettle Lane NW of J51	Mid Suffolk District	816 Mid Suffolk Central	81	96	94	100	100
Y	50014	Ipswich Rd / A14 SB Offslip	Mid Suffolk District	816 Mid Suffolk Central	37	86	76	101	100
N	50018	A14 / Paper Mill Lane (J52) southern ap	Mid Suffolk District	816 Mid Suffolk Central	44	64	62	88	82
N	5776	A14 / Tostock Road offslip westbound	Mid Suffolk District	817 Mid Suffolk South	49	64	64	75	74
N	2082	Compiegne Way / A14 J43 circulatory	St. Edmundsbury District (B)	811 Bury St Edmunds	97	103	102	104	104
N	2087	A143 / A14 J43 circulatory	St. Edmundsbury District (B)	811 Bury St Edmunds	72	95	92	100	98
N	2288	Sow Lane / A14 westbound slip roads	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	41	63	50	113	110
N	5768	A14 / Unnamed Road (westbound merg	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	46	61	61	71	70
Y	85021	A14 / Croft Lane (A14 EB J58 to J59)	St. Edmundsbury District (B)	826 Forest Heath and St Edmun*	44	63	60	95	91
Y	80409	Dock Spur Roundabout (A154 approach	Suffolk Coastal District	809 Felixstowe	51	73	68	86	81
Y	30044	A14 / A12 Seven Hills roundabout Buckl	Suffolk Coastal District	833 Suffolk Coastal South	65	79	74	78	82
N	30096	A12 / A14 Junction 58	Suffolk Coastal District	833 Suffolk Coastal South	88	77	73	86	81
N	30097	A14 J58 - Bucklesham Road approach	Suffolk Coastal District	833 Suffolk Coastal South	64	78	74	77	81
Y	30098	A14 / A12 - A1156 Entry	Suffolk Coastal District	833 Suffolk Coastal South	78	75	71	110	89

Appendix B - Links with V/C over 100% (SRN) AM

Flagged in Model Run 7?	All	Name	District	Sector	2016 - WorstApproach	2026 NoAdj - WorstApproa	2026 wAdj - WorstApproacl	2036 NoAdj - WorstApp	2036 wAdj - WorstAppr
Y	3118	A12 northbound (J30 slips)	Babergh District	819 Babergh Centra	57	73	72	82	81
Y	30033	A14 SB - Mid Junction 54	Babergh District	820 Babergh East	82	97	93	109	105
Y	30034	A14 SB - South of Junction 54	Babergh District	820 Babergh East	82	97	93	100	100
Y	30036	A14 SB - South of Junction 54 / North of	Babergh District	820 Babergh East	82	97	93	100	100
Y	30038	A14 SB - South of Junction 54 / North of	Babergh District	820 Babergh East	82	97	93	100	100
Y	30039	A14 SB - Offslip Copdock	Babergh District	820 Babergh East	82	97	93	100	100
Y	30049	A14 / A12 (Copdock) - Eastbound Merge	Babergh District	820 Babergh East	98	102	101	106	105
Y	30050	A14 SB - East of Copdock	Babergh District	820 Babergh East	87	100	97	100	100
Y	30051	A14 NB / Offslip Copdock	Babergh District	820 Babergh East	72	97	79	106	103
Y	30053	A14 SB - East of Copdock	Babergh District	820 Babergh East	87	100	97	100	100
Y	30055	A14 SB - East of Copdock	Babergh District	820 Babergh East	87	100	97	100	100
Y	30057	A14 SB - East of Copdock / West of Junc	Babergh District	820 Babergh East	87	100	97	100	100
Y	30058	A14 SB - Offslip Junction 56	Babergh District	820 Babergh East	87	100	97	100	100
Y	30063	A14 / A137 - Eastbound Merge	Babergh District	820 Babergh East	94	118	107	151	140
Y	30064	A14 NB - Offslip Junction 56	Babergh District	820 Babergh East	75	93	88	100	99
Y	30065	A14 SB - East of Junction 56	Babergh District	820 Babergh East	95	100	100	100	100
Y	30066	A14 NB - East of Junction 56	Babergh District	820 Babergh East	75	93	88	100	99
Y	30067	A14 SB - East of Junction 56	Babergh District	820 Babergh East	95	100	100	100	100
Y	30068	A14 NB - East of Junction 56	Babergh District	820 Babergh East	75	93	88	100	99
Y	30797	Copdock Southern Side Circulatory	Babergh District	820 Babergh East	110	120	118	138	135
Y	30798	A12 / A14 Junction - A12 Northbound O	Babergh District	820 Babergh East	121	129	127	129	129
Y	30069	A14 SB - East of Junction 56	Ipswich District (B)	803 Ipswich SE	95	100	100	100	100
Y	30070	A14 NB - East of Junction 56	Ipswich District (B)	803 Ipswich SE	75	93	88	100	99
Y	30071	A14 SB - East of Junction 56	Ipswich District (B)	803 Ipswich SE	95	100	100	100	100
Y	30073	A14 SB - East of Junction 56	Ipswich District (B)	803 Ipswich SE	95	100	100	100	100
Y	30074	A14 SB / Junction 57 Offslip	Ipswich District (B)	803 Ipswich SE	95	100	100	100	100
Y	30075	A14 NB West of Junction 57	Ipswich District (B)	803 Ipswich SE	75	93	88	100	99
Y	30076	A14 / A1189 - Westbound Merge	Ipswich District (B)	803 Ipswich SE	68	90	85	108	99
Y	30077	A14 / A1189 - A14 offslip eastbound bef	Ipswich District (B)	803 Ipswich SE	95	105	103	105	103
Y	3323	A14 (J47) / A1088	Mid Suffolk District	816 Mid Suffolk Ce	70	83	82	102	100
N	50019	A14 / Claydon - SB Merge	Mid Suffolk District	816 Mid Suffolk Ce	78	89	88	100	99
Y	50020	A14 SB, south of Junction 52	Mid Suffolk District	816 Mid Suffolk Ce	94	104	103	114	113
N	85051	A14 westbound, slip road from Woolpit	Mid Suffolk District	817 Mid Suffolk So	81	94	94	106	103
N	2089	A14 Junction 43 westbound off-slip / Cir	St. Edmundsbury District (B)	811 Bury St Edmun	100	101	100	99	99
N	2090	A14 Junction 43 westbound diverge	St. Edmundsbury District (B)	811 Bury St Edmun	90	98	97	100	100
N	2096	A14 Junction 44 eastbound diverge	St. Edmundsbury District (B)	811 Bury St Edmun	57	77	75	101	98
N	2098	A14 Junction 44 eastbound off-slip / Cir	St. Edmundsbury District (B)	811 Bury St Edmun	84	101	101	106	105
N	2104	A14 Junction 44 westbound diverge	St. Edmundsbury District (B)	811 Bury St Edmun	94	102	101	103	102
N	2107	Bedingfield Way / A14 J44 circulatory	St. Edmundsbury District (B)	811 Bury St Edmun	61	81	75	99	94
N	2285	A14 / Sow Lane - westbound slips	St. Edmundsbury District (B)	826 Forest Heath a	89	99	99	105	104
N	2286	A14 / Sow Lane - eastbound slips	St. Edmundsbury District (B)	826 Forest Heath a	43	60	58	87	86
Y	30072	A14 NB - East of Junction 56	Suffolk Coastal District	833 Suffolk Coastal	75	93	88	100	99
Y	30092	A14 A1156 junction - A14 wb on slip	Suffolk Coastal District	833 Suffolk Coastal	63	77	74	91	83
Y	50095	A14 westbound (slips to/from Levington	Suffolk Coastal District	833 Suffolk Coastal	57	75	73	88	85
Y	85002	A14 (Close to Nactonheath Plantation)	Suffolk Coastal District	833 Suffolk Coastal	0	60	63	64	64

Appendix B - Links with V/C over 100% (SRN) PM

Flagged in Model Run 7?	All	Name	District	Sector	2016 - WorstApproach	2026 NoAdj - WorstApproa	2026 wAdj - WorstApproacl	2036 NoAdj - WorstApproa	2036 wAdj - WorstAppr
Y	3118	A12 northbound (J30 slips)	Babergh District	819 Babergh Centra	64	83	81	101	92
Y	30033	A14 SB - Mid Junction 54	Babergh District	820 Babergh East	82	103	100	109	106
Y	30034	A14 SB - South of Junction 54	Babergh District	820 Babergh East	82	100	100	100	100
Y	30036	A14 SB - South of Junction 54 / North of	Babergh District	820 Babergh East	82	100	100	100	100
Y	30038	A14 SB - South of Junction 54 / North of	Babergh District	820 Babergh East	82	100	100	100	100
Y	30039	A14 SB - Offslip Copdock	Babergh District	820 Babergh East	82	100	100	100	100
Y	30049	A14 / A12 (Copdock) - Eastbound Merge	Babergh District	820 Babergh East	83	87	86	89	86
Y	30050	A14 SB - East of Copdock	Babergh District	820 Babergh East	77	85	84	85	84
Y	30051	A14 NB / Offslip Copdock	Babergh District	820 Babergh East	77	96	86	99	100
Y	30053	A14 SB - East of Copdock	Babergh District	820 Babergh East	77	85	84	85	84
Y	30055	A14 SB - East of Copdock	Babergh District	820 Babergh East	77	85	84	85	84
Y	30057	A14 SB - East of Copdock / West of Junc	Babergh District	820 Babergh East	77	85	84	85	84
Y	30058	A14 SB - Offslip Junction 56	Babergh District	820 Babergh East	77	85	84	85	84
Y	30063	A14 / A137 - Eastbound Merge	Babergh District	820 Babergh East	82	98	97	100	98
Y	30064	A14 NB - Offslip Junction 56	Babergh District	820 Babergh East	87	100	98	100	100
Y	30065	A14 SB - East of Junction 56	Babergh District	820 Babergh East	85	99	98	100	99
Y	30066	A14 NB - East of Junction 56	Babergh District	820 Babergh East	87	100	98	100	100
Y	30067	A14 SB - East of Junction 56	Babergh District	820 Babergh East	85	99	98	100	99
Y	30068	A14 NB - East of Junction 56	Babergh District	820 Babergh East	87	100	98	100	100
Y	30797	Copdock Southern Side Circulatory	Babergh District	820 Babergh East	104	115	112	131	128
Y	30798	A12 / A14 Junction - A12 Northbound O	Babergh District	820 Babergh East	120	126	126	127	127
Y	30069	A14 SB - East of Junction 56	Ipswich District (B)	803 Ipswich SE	85	99	98	100	99
Y	30070	A14 NB - East of Junction 56	Ipswich District (B)	803 Ipswich SE	87	100	98	100	100
Y	30071	A14 SB - East of Junction 56	Ipswich District (B)	803 Ipswich SE	85	99	98	100	99
Y	30073	A14 SB - East of Junction 56	Ipswich District (B)	803 Ipswich SE	85	99	98	100	99
Y	30074	A14 SB / Junction 57 Offslip	Ipswich District (B)	803 Ipswich SE	85	99	98	100	99
Y	30075	A14 NB West of Junction 57	Ipswich District (B)	803 Ipswich SE	87	100	98	100	100
Y	30076	A14 / A1189 - Westbound Merge	Ipswich District (B)	803 Ipswich SE	80	106	97	157	141
Y	30077	A14 / A1189 - A14 offslip eastbound bef	Ipswich District (B)	803 Ipswich SE	38	53	50	56	53
Y	3323	A14 (J47) / A1088	Mid Suffolk District	816 Mid Suffolk Ce	74	89	87	95	95
N	50019	A14 / Claydon - SB Merge	Mid Suffolk District	816 Mid Suffolk Ce	73	89	89	91	92
Y	50020	A14 SB, south of Junction 52	Mid Suffolk District	816 Mid Suffolk Ce	89	102	102	104	105
N	85051	A14 westbound, slip road from Woolpit	Mid Suffolk District	817 Mid Suffolk So	47	62	61	73	72
N	2089	A14 Junction 43 westbound off-slip / Cir	St. Edmundsbury District (B)	811 Bury St Edmun	88	99	97	103	102
N	2090	A14 Junction 43 westbound diverge	St. Edmundsbury District (B)	811 Bury St Edmun	64	81	79	96	93
N	2096	A14 Junction 44 eastbound diverge	St. Edmundsbury District (B)	811 Bury St Edmun	88	97	95	105	103
N	2098	A14 Junction 44 eastbound off-slip / Cir	St. Edmundsbury District (B)	811 Bury St Edmun	101	104	103	104	103
N	2104	A14 Junction 44 westbound diverge	St. Edmundsbury District (B)	811 Bury St Edmun	52	73	71	91	91
N	2107	Bedingfield Way / A14 J44 circulatory	St. Edmundsbury District (B)	811 Bury St Edmun	70	107	105	128	124
N	2285	A14 / Sow Lane - westbound slips	St. Edmundsbury District (B)	826 Forest Heath a	49	65	65	75	75
N	2286	A14 / Sow Lane - eastbound slips	St. Edmundsbury District (B)	826 Forest Heath a	77	84	83	122	119
Y	30072	A14 NB - East of Junction 56	Suffolk Coastal District	833 Suffolk Coastal	87	100	98	100	100
Y	30092	A14 A1156 junction - A14 wb on slip	Suffolk Coastal District	833 Suffolk Coastal	59	74	69	104	104
Y	50095	A14 westbound (slips to/from Levington	Suffolk Coastal District	833 Suffolk Coastal	52	62	60	101	67
Y	85002	A14 (Close to Nactonheath Plantation)	Suffolk Coastal District	833 Suffolk Coastal	0	83	83	501	198

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PROJECT:	70044944 - Suffolk Combined Local Plans	**AUTHOR:**	Leonardo Mendes
CHECKED:	Charlotte Herridge	**APPROVED:**	Michael Johns

INTRODUCTION

WSP have been commissioned to undertake an assessment of the impact of Local Plan development assumptions for multiple Local Planning Authorities (LPAs) within Suffolk. Most recently, WSP were commissioned to undertake "Model Run 9" which includes the latest future development assumptions within Babergh and Mid Suffolk. This Technical Note (TN) has been written to detail the differences to the most recent 2036 Local Plan assignments, as a result of including the SnOasis development.

This TN discusses the SnOasis site and the consented land uses that are proposed to be built within the development, detailing the method used to calculate the trip generation and discusses how these trips will be distributed on the highway network. A number of highway network changes have been incorporated into the forecast models to reflect mitigation measures associated with the site, which have been presented within this TN.

In order to determine the impact of SnOasis, comparisons have been made between the assigned forecast models, with and without the development. A summary of model nodes and links with Volume over Capacity (V/C) greater than 85% and 100% respectively, has been summarised alongside flow and delay difference plots.

BACKGROUND INFORMATION

SnOasis is a proposed indoor winter sports resort in Great Blakenham, near Ipswich; it is intended to be the largest real snow indoor ski slope in the world and the development will comprise world-class winter sport facilities in addition to an entertainment centre. In 2008, the site was granted Outline approval (reference OL/100/04) by central government and again in 2011 (reference 1969/10) by Mid Suffolk District Council (MSDC). Most recently, the winter sports complex gained detailed planning approval from Suffolk County Council (SCC).

The SnOasis development comprises of tourism, sport and leisure facilities including a ski slope, village centre, holiday accommodation, entertainment dome, ancillary restaurants and retail outlets together with other sporting facilities. The approved planning application also includes on and off site infrastructure works. The development is intended to be built on land at Column Field Quarry (known as Mason's Quarry), Great Blakenham, Suffolk. **Figure 1** illustrates the landscape masterplan.

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Figure 1: SnOasis Landscape Masterplan

SnOasis is expected to generate 778 full-time and 1,383 part-time jobs, with a total of 1,470 full-time equivalent (FTE) jobs. On an average day, 938 employees are expected to travel to the site. This was the number of jobs considered for the purposes of the Local Plan modelling.

It is estimated that in the second year of full operation, or “Year 2 Peak”, there will be 825,400 yearly visitors, and at maturity, or “Year 15 Stable”, the average number of yearly visitors will be 737,500. For the purposes of the 2036 Local Plan modelling, the site will already have reached maturity and will be producing a lower number of trips than in the peak year.

The scheme is subdivided into eight construction phases according to each of the land uses, as shown in **Table 1**. The entire site has been modelled in one zone with one access point. It was assumed that all land uses will be in place by the 2026 forecast year.

Table 1: SnOasis Land Uses and Respective Areas (sqm)

Phase	Land Use	Area (sqm)
Phase 1	Infrastructure Works	n/a
Phase 2	Education and Energy Centre	2,331
Phase 3	Ski Centre	70,482
Phase 4	Entertainment Dome	16,144
Phase 5	Hotel and Village Centre	37,642

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Phase 6	Sports Centre and Hostel	35,558
Phase 7	Academy Zone	13,537
Phase 8	Log Cabins and Clubhouse	21,810

ASSESSMENT METHODOLOGY

The SnOasis development had previously not been considered in the ISPA 2036 Local Plan modelling work due to uncertainty in its delivery, but planning permission was recently granted by SCC and WSP have been commissioned by Babergh and Mid Suffolk District Council to undertake a sensitivity test to understand the impacts of this development on the highway network. Due to the size and national significant of this site, it is expected that a considerable number of trips will be generated. The impact of this development and associated infrastructure improvements, proposed in the Transport Assessment (TA) undertaken by Motion in 2016, are presented in this TN.

TRIP GENERATION

The trip generation of the development was calculated based on the consented TA; the TA assumes that the number of visitor trips will peak in the second year of operation, and the site will reach maturity 15 years after opening, when the number of visitor trips will stabilise. As mentioned previously, for the purposes of the 2036 Local Plan modelling, the stable number of trips were adopted.

Table 2 shows the total number of visitors for both Year 2 'Peak' and Year 15 'Stable' scenarios.

Table 2: Number of visitors for short and long-term – high range forecast

Total Number of Visitors (High range forecast)		
	Year 2 'Peak'	**Year 15 ' Stable'**
Total Number of Visitors	825,400	737,500

The TA only shows the number of trips for the Year 2 'Peak', but it was possible to derive the number of trips for the Year 15 'Stable' using inputs from the TA such as modal share, car occupancy, number of employee trips, and number of total visitors in Year 2 and Year 15. The methodology to calculate the number of car trips for Year 15 'Stable' is shown in **Table 3**.

Table 3: SnOasis trip generation methodology for Year 15 'Stable'

Methodology to derive trip generation
1. Extract daily employee trips (all modes) for Mon-Thurs for both AM and PM Peaks
2. Based on the modal share and car occupancy, calculate the number of car trips by employees for both peaks from the total trips (all modes)
3. Calculate the number of visitor car trips by deducting the employee car trips

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4. Apply reduction factor for Year 15 'Stable' to account for reduction in the number of visitors described in the TA
5. Sum up the adjusted number of car trips for visitors with the car trips for employees.

The first step was to extract the number of employee trips for all modes for both AM and PM peak periods between Monday-to-Thursday. It is important to note that the Mon-Thurs period and the time peak periods are consistent with the ISPA Local Plan model. These peak periods do not necessarily correspond to the same periods with the highest number of trips from the development given the nature of the site, its opening hours and use.

Table 4 illustrates the employee total trips for the AM and PM peak periods between Monday and Thursday. This table was extracted from Part 5 of Appendix F2 of the TA.

Table 4: Employee total trips for each peak period between Mon-Thurs

Mon-Thurs Employee Trips		
Time Range	**Arrivals**	**Departures**
AM Peak (08:00 – 09:00)	38	0
PM Peak (17:00 – 18:00)	57	77

The second step was to calculate the number of car trips by employees for both time peak periods for all modes. **Table 5** shows the car modal split and occupancy which may be found in the Part 1 of the TA report.

Table 5: Car modal split and car occupancy

Car Modal Split and Car Occupancy		
	Percentage Travelling by Car	**Car Occupancy**
Visitors from Ipswich	78%	2.0
Other Visitors	87%	2.2
Conference Visitors	87%	1.3
Employees	67%	1.3

Table 6 calculates the employee car trips for each time peak period based on the total number of trips and car occupancy from **Table 4** and **Table 5**.

Table 6: Employee car trips for each peak period between Mon-Thurs

Mon-Thurs Employee Trips		
Time Range	**Arrivals**	**Departures**
AM Peak (08:00 – 09:00)	20	0
PM Peak (17:00 – 18:00)	29	40

The third step was to isolate the number of car trips by visitors from the total number of car trips. The total number of car trips for Year 2 'Peak' is provided in **Table 7**, which was extracted from the TA report. This represents the car trips for visitors and employees combined.

Table 7: Total car trips for each peak period for Year 2 'Peak'

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Number of car trips by visitors and employees combined - Year 2 'Peak'		
Time Range	**Arrivals**	**Departures**
AM Peak (08:00 – 09:00)	236	7
PM Peak (17:00 – 18:00)	137	228

Table 8 represents the visitor car trips for Year 2 'Peak'. This was obtained by subtracting the trips in **Table 6** from **Table 8**.

Table 8: Visitor car trips for each peak period for Year 2 'Peak'

Number of car trips by visitors only - Year 2 'Peak'		
Time Range	**Arrivals**	**Departures**
AM Peak (08:00 – 09:00)	216	7
PM Peak (17:00 – 18:00)	108	188

The fourth step is to apply a reduction factor between the number of visitors in the Year 15 'Stable' and Year 2 'Peak', which is a ratio between the number of visitors for both years in **Table 2**. The reduction factor is then applied to the visitor car trips for Year 2 'Peak' to obtain the number of visitor car trips in Year 15 'Stable', as shown in **Table 9**.

Table 9: Visitor car trips for each peak period for Year 15 'Stable'

Number of car trips by visitors only - Year 15 'Stable'		
Time Range	**Arrivals**	**Departures**
AM Peak (08:00 – 09:00)	193	6
PM Peak (17:00 – 18:00)	96	168

The final step is to sum up the number of visitor trips with the employee trips for Year 15 'Stable', as shown in **Table 10**.

Table 10: Total car trips for each peak period for Year 15 'Stable'

Number of car trips by visitors and employees combined - Year 15 'Stable'		
Time Range	**Arrivals**	**Departures**
AM Peak (08:00 – 09:00)	213	6
PM Peak (17:00 – 18:00)	126	208

The number of car trips generated by SnOasis in the Year 15 'Stable' are used in the ISPA Local Plan modelling for the 2036 forecast year, as shown in **Table 11**. The SnOasis development will generate about 50% more car trips in the PM Peak when compared to the AM Peak. In the PM Peak, the number of two-way car trips is 334, whilst for the AM Peak, 219 two-way car trips will be generated.

Table 11: SnOasis overall car trip generation for 2036

Land Uses	AM Peak (08:00 – 09:00)		PM Peak (17:00 – 18:00)	
	Arrival	Departure	Arrival	Departure

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Tourism, sport, leisure, village centre, holiday accommodation, restaurants, retail outlets	213	6	126	208

TRIP DISTRIBUTION

For the purposes of Local Plan modelling, the existing distribution from employment zones in the SCTM on Bramford Road was used to determine the distribution of traffic to and from the site. This is considered to be an appropriate approach to take as the Local Plan modelling is a high level strategic assessment of the cumulative impact of development.

MITIGATION MEASURES

The SnOasis TA has set out a series of wider infrastructure changes to mitigate the traffic to and from the development. The most relevant measures for the Local Plan modelling are:

- Signalisation of B1113 Bramford Rd / Gipping Way Rd;
- Change in the signal timings of the B113 Bramford Rd / B1113 Bramford Rd junction;
- Addition of right-turn flares along Bramford Rd and Gipping Way Rd;
- Roundabout access to the development.

SITE ACCESS ARRANGEMENT

The roundabout access to the SnOasis site, illustrated in **Figure 2**, was coded into the 2036 ISPA Local Plan highway network but there are no trips assigned from SnOasis in the “Without SnOasis” scenario. The reason for this is because the eastern arm access from Lime Way would be in place in the same roundabout, forming one junction instead of two priority junctions. All the other relevant infrastructure changes described above were added in the “With SnOasis” scenario.

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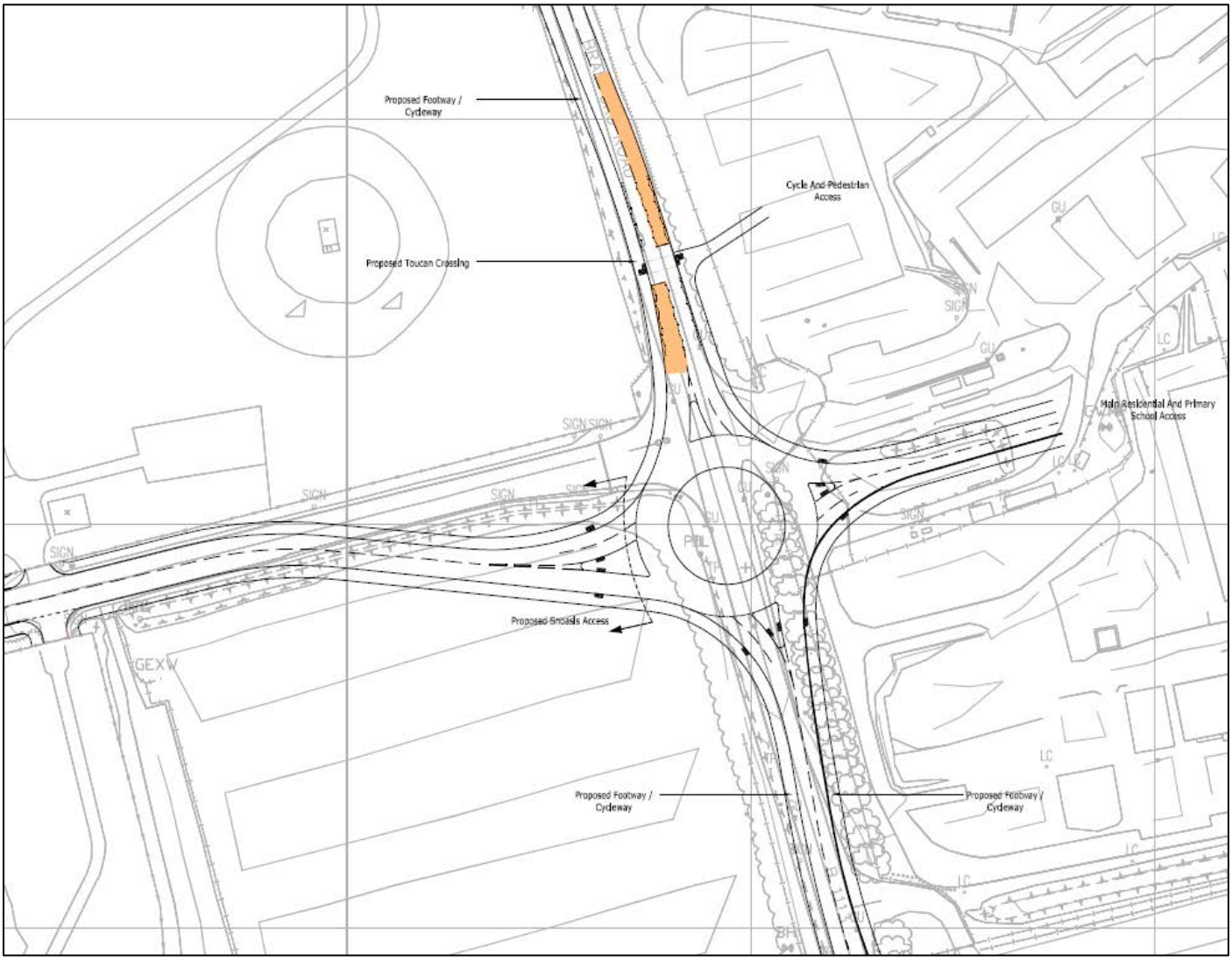

Figure 2: SnOasis roundabout access arrangement

BRAMFORD ROAD / GIPPING WAY

The Bramford Rd / Gipping Way Rd junction was previously a priority junction and has become signalised as part of the site mitigation strategies. In addition to this, the junction design has changed significantly, as illustrated in **Figure 3**, which was extracted from Appendix C in the TA. All junction approach arms, which were previously two-lanes, have been changed to one-lane in the new junction design, with a right-flare from the south arm. Pedestrian crossings have also been considered by adding the pedestrian stage as inter-greens in the signal timings. They were not modelled in detail since this would not be the purpose of a strategic model. The right-turn flares on Bramford Rd and Gipping Way Rd were also added in the model as per scheme drawing.

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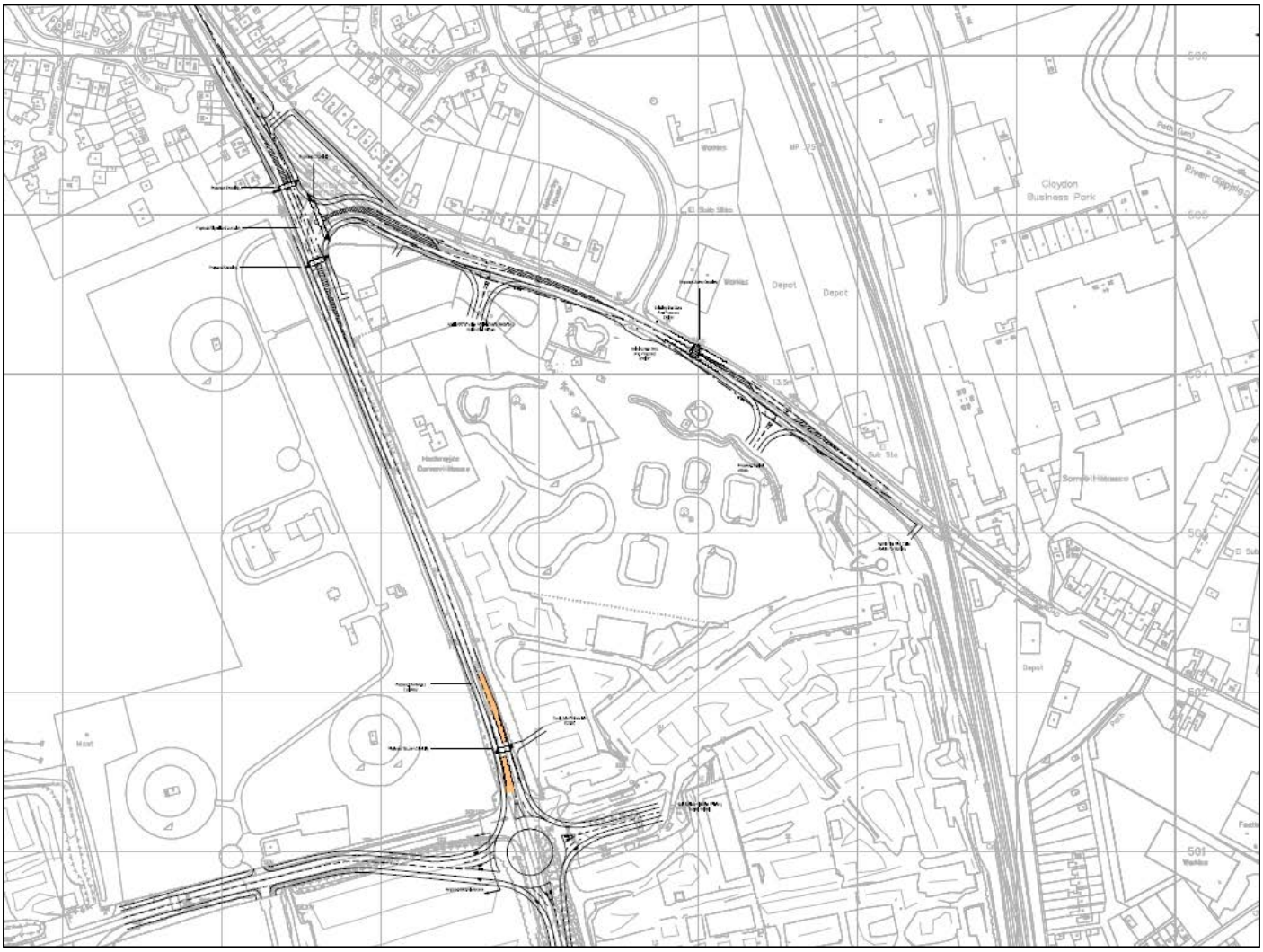

Figure 3: SnOasis mitigation measures – B1113 Bramford Road / Gipping Way Rd

The junction signal timings were provided in the TA addendum report and they were calculated using a LinSig model from 2017. The saturation flows were extracted from the same LinSig report. There was no change in free-flow speed or any other input parameters in the highway model.

B1113 BRAMFORD RD / B1113 BRAMFORD RD SIGNALISED JUNCTION

The main change in the B1113 Bramford Rd / B1113 Bramford Rd junction is in the signal timings. The cycle time has changed and the green times from each approach has subsequently changed as a result. In addition to this, the north arm in the B1113 Bramford Rd gained an additional lane on its approach, which doubles the saturation flow. This junction is illustrated in **Figure 4**, which was extracted from Appendix C in the TA. The right-turn flares on Bramford Rd were also added in the model as per scheme drawing.

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PROJECT:	70044944 - Suffolk Combined Local Plans	**AUTHOR:**	Leonardo Mendes
CHECKED:	Charlotte Herridge	**APPROVED:**	Michael Johns

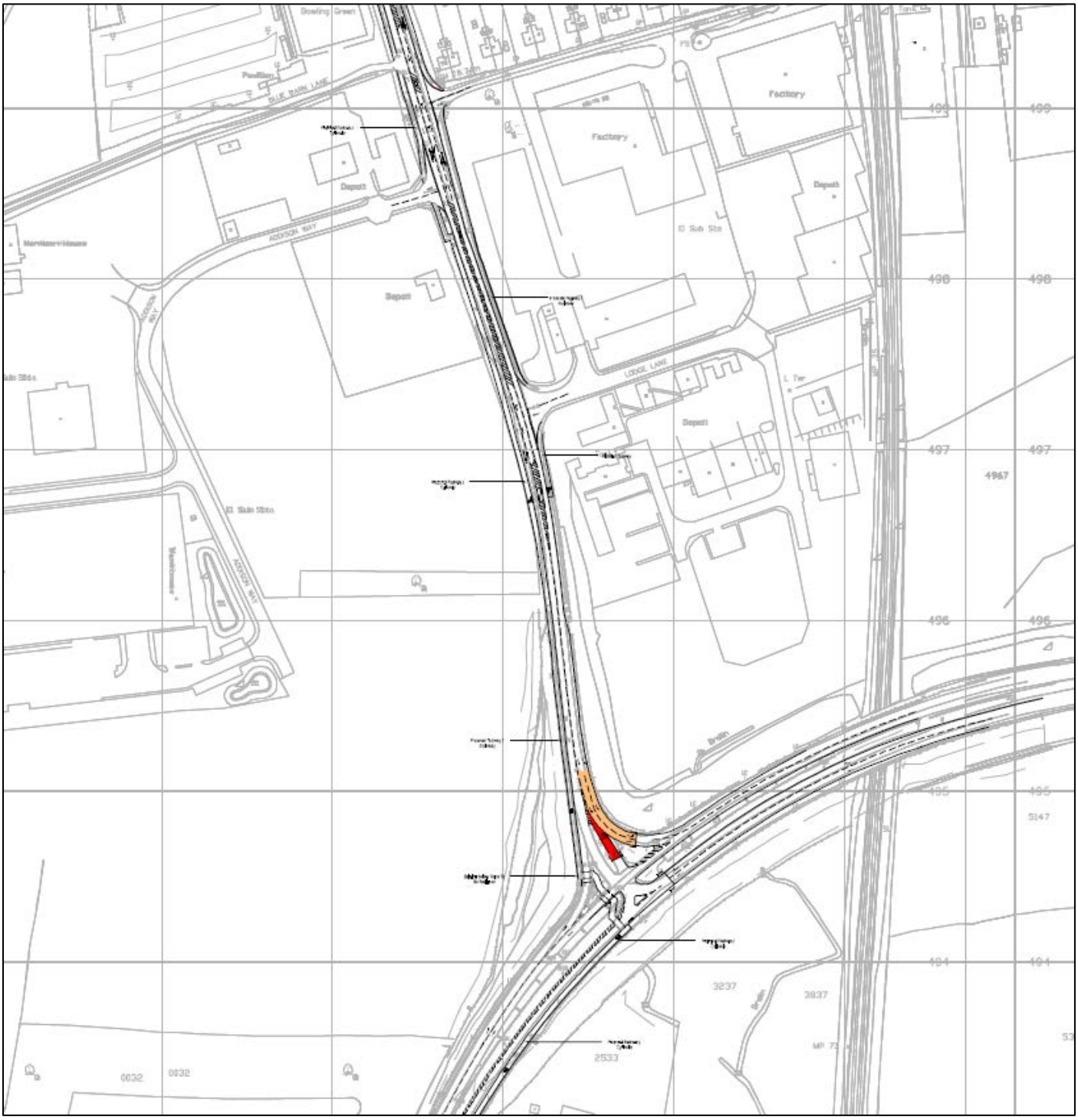

Figure 4: SnOasis mitigation measures – B1113 Bramford Road / B1113 Bramford Road

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The junction signal timings were provided in the TA addendum report and they were calculated using a LinSig model from 2017. The saturation flows were extracted from the same LinSig report. There was no change in free-flow speed or any other input parameters in the highway model.

DEVELOPMENT IMPACTS

In order to determine the impacts of SnOasis, a number of model comparisons have been made between the 2036 Local Plan scenario, with and without the development and associated infrastructure included. To assess the differences, the following has been considered for the AM and PM peaks:

- Actual Flow Difference;
- Delay difference;
- V/C link difference;
- Links with a V/C greater than 100%;
- Nodes Overall V/C; and
- Nodes with a V/C greater than 85%.

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ACTUAL FLOW DIFFERENCES

The actual flow difference in Passenger Car Unit (PCU) in the AM Peak model, comparing scenarios with and without SnOasis included, is presented in **Figure 5.**

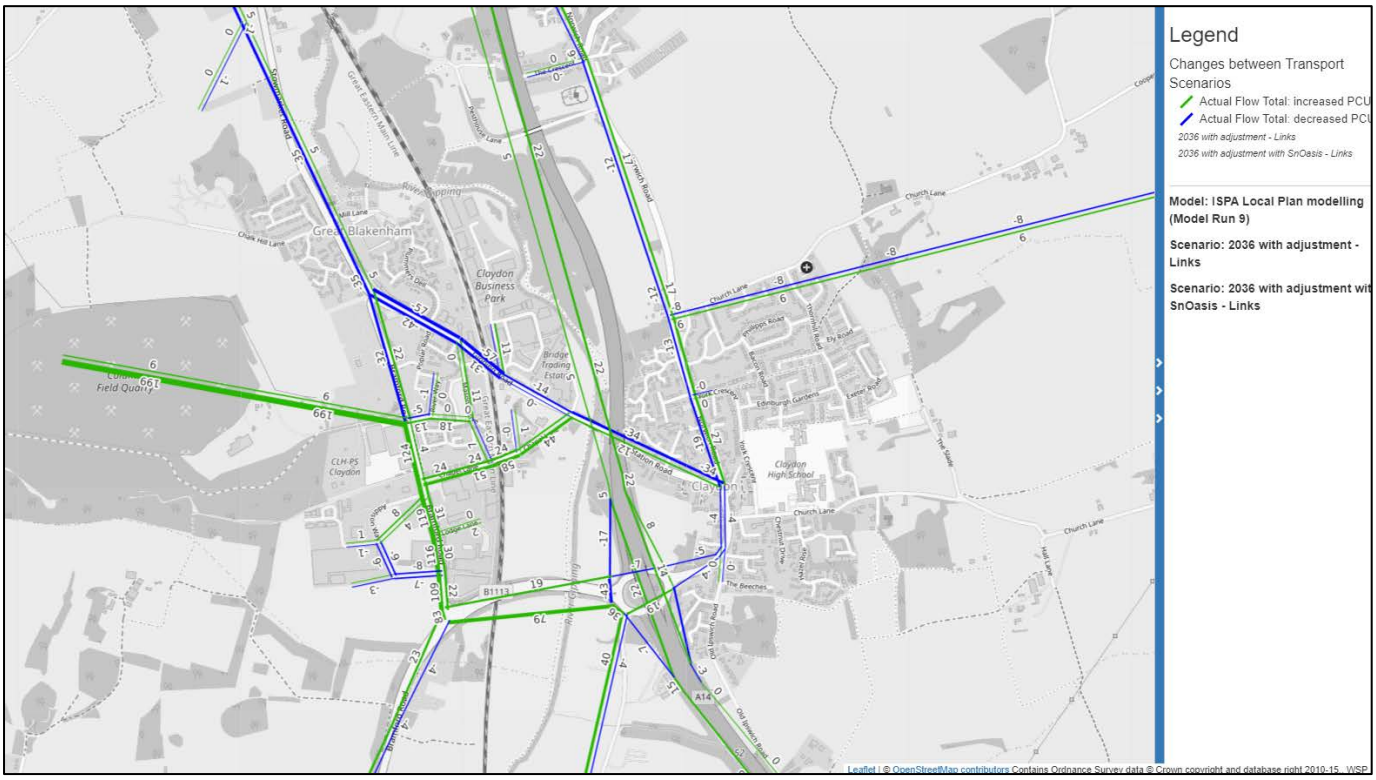

Figure 5: 2036 Local Plan Scenario, With SnOasis vs Without SnOasis, Actual Flow Difference, AM Peak

As a result of the SnOasis development, the 2036 AM Peak actual flow has considerably increased by a maximum of 207 PCUs between the site access and the B1113 Bramford Rd / B1113 Bramford Rd junction, whilst it has decreased by a maximum of 81 PCUs in Gipping Way Rd. Some minor traffic (between 15 and 27 PCUs) has also been added onto the A14 road, which was expected according to the TA report.

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The actual flow difference in the PM Peak model, comparing scenarios with and without SnOasis included, are presented in **Figure 6.**

Figure 6: 2036 Local Plan Scenario, With SnOasis vs Without SnOasis, Actual Flow Difference, PM Peak

Similarly, the 2036 PM Peak actual flow has considerably increased by a maximum of 323 PCUs between the Bramford Rd / Gipping Way Rd and B1113 Bramford Rd / B1113 Bramford Rd junctions, whilst it has decreased by a maximum of 75 trips on Gipping Way Rd. Some minor traffic has also been added onto the A14 road, which was expected according to the TA report. Northbound trips from the west arm of the B113 / B113 Bramford Rd junction have reduced, potentially due to the new set of signal timings in the junction.

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DELAY DIFFERENCES

The delay difference in seconds in the AM Peak model, comparing scenarios with and without SnOasis included, is presented in **Figure 7**.

Figure 7: 2036 Local Plan Scenario, With SnOasis vs Without SnOasis, Delay Difference, AM Peak

The 2036 AM Peak delay difference plot shows that delays of up to 46 seconds have been added onto the following arms:

- Southbound approach from the northern arm in the Bramford Rd / Gipping Way Rd junction;
- Northbound approach from the eastern arm in the Bramford Rd / Gipping Way Rd junction;
- Northbound approach from the western arm in the B1113 / B1113 Bramford Rd junction;
- Northbound off-slip from the A14 / B1113 Bramford Rd junction (A14 Junction 52).

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The delay difference in seconds in the PM Peak model, comparing scenarios with and without SnOasis included, is presented in **Figure 8.**

Figure 8: 2036 Local Plan Scenario, With SnOasis vs Without SnOasis, Delay Difference, PM Peak

The 2036 PM Peak delay difference plot shows major delays (up to 320 seconds) have been added onto the side arms accessing onto the B1113 Bramford Rd, including the Addison Way and the new road to/from the PortOne development. Other delays of up to 33 seconds have been added onto:

- Eastbound approach from the western arm in the B1113 Bramford Rd / A14 entry arm junction;
- Northbound approach from the western arm in the B1113 / B1113 Bramford Rd junction;
- Southbound approach from the northern arm in the Bramford Rd / Gipping Way Rd junction;
- Northbound approach from the eastern arm in the Bramford Rd / Gipping Way Rd junction;
- Southbound A14 off-slip towards Ipswich Rd.

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LINK V/C DIFFERENCES

The V/C link difference in percentage in the AM Peak model, comparing scenarios with and without SnOasis included, is presented in **Figure 9.**

Figure 9: 2036 Local Plan Scenario, With SnOasis vs Without SnOasis, V/C Difference, AM Peak

The 2036 AM Peak V/C difference plot shows that the network links with the highest V/C difference change as a result of SnOasis are:

- Southbound approach from the northern arm in the Bramford Rd / Gipping Way Rd junction;
- Northbound approach from the eastern arm in the Bramford Rd / Gipping Way Rd junction;
- Westbound approach from the eastern arm in the Bramford Rd / Chapel Ln junction.

The southbound approach from the northern arm in the B1113 / B1113 Bramford Rd junction has resulted in a 44 percentage points decrease when comparing 'With SnOasis' vs 'Without SnOasis'. This is potentially due to the increase in saturation flow on this approach as a result of the addition of a second lane.

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The V/C ratio in percentage in the AM Peak model for “With SnOasis”, is presented in **Figure 10.**

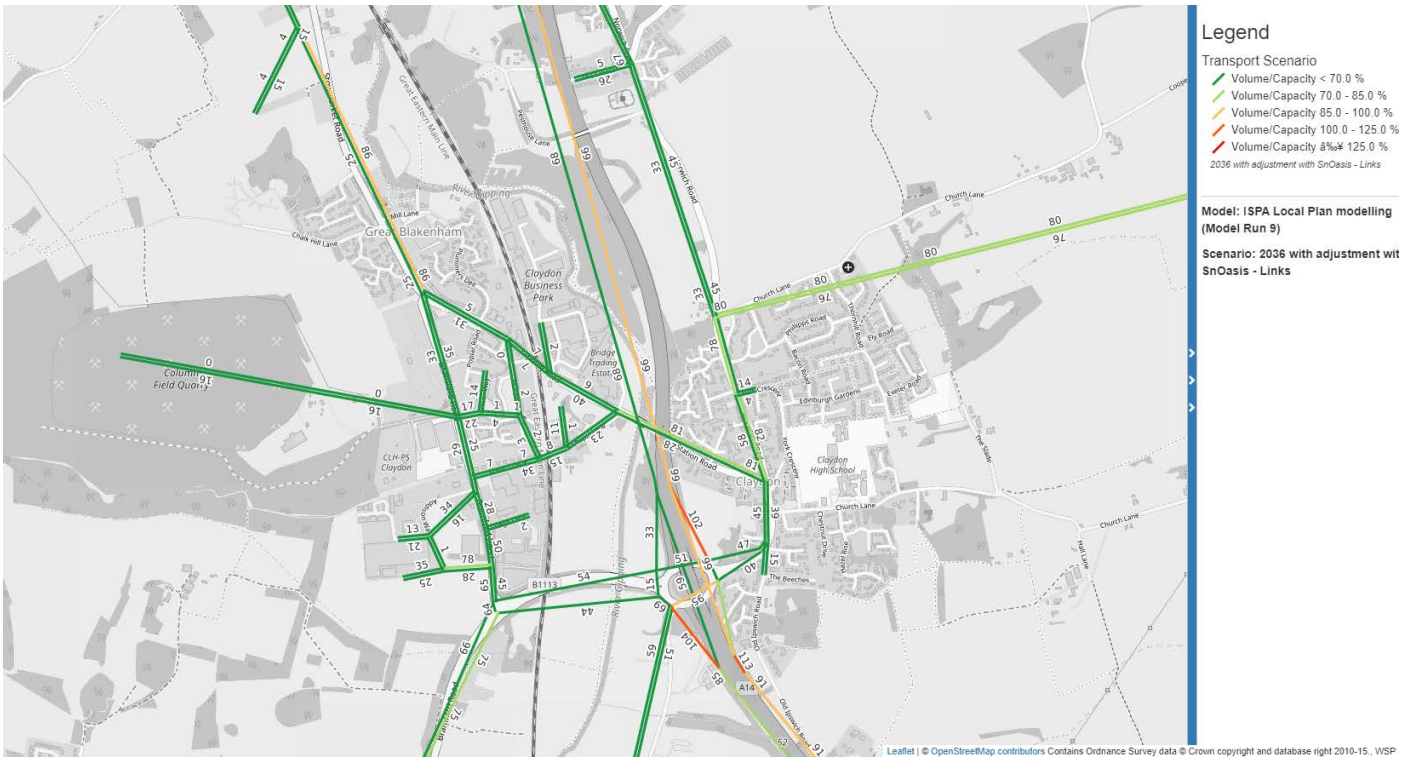

Figure 10: 2036 Local Plan Scenario, With SnOasis, V/C, AM Peak

As a result of the SnOasis development site, the southbound approach from Gipping Way Rd into Bramford Rd / Gipping Way Rd junction has reached a V/C higher than 85% in the AM 2036 Peak. Additionally, the A14 northbound off-slip into Bramford Rd is over capacity, with a V/C of 104%, with a V/C increase of 3 percentage points due to SnOasis.

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The V/C difference in percentage in the PM Peak model, comparing scenarios with and without SnOasis included, is presented in **Figure 11.**

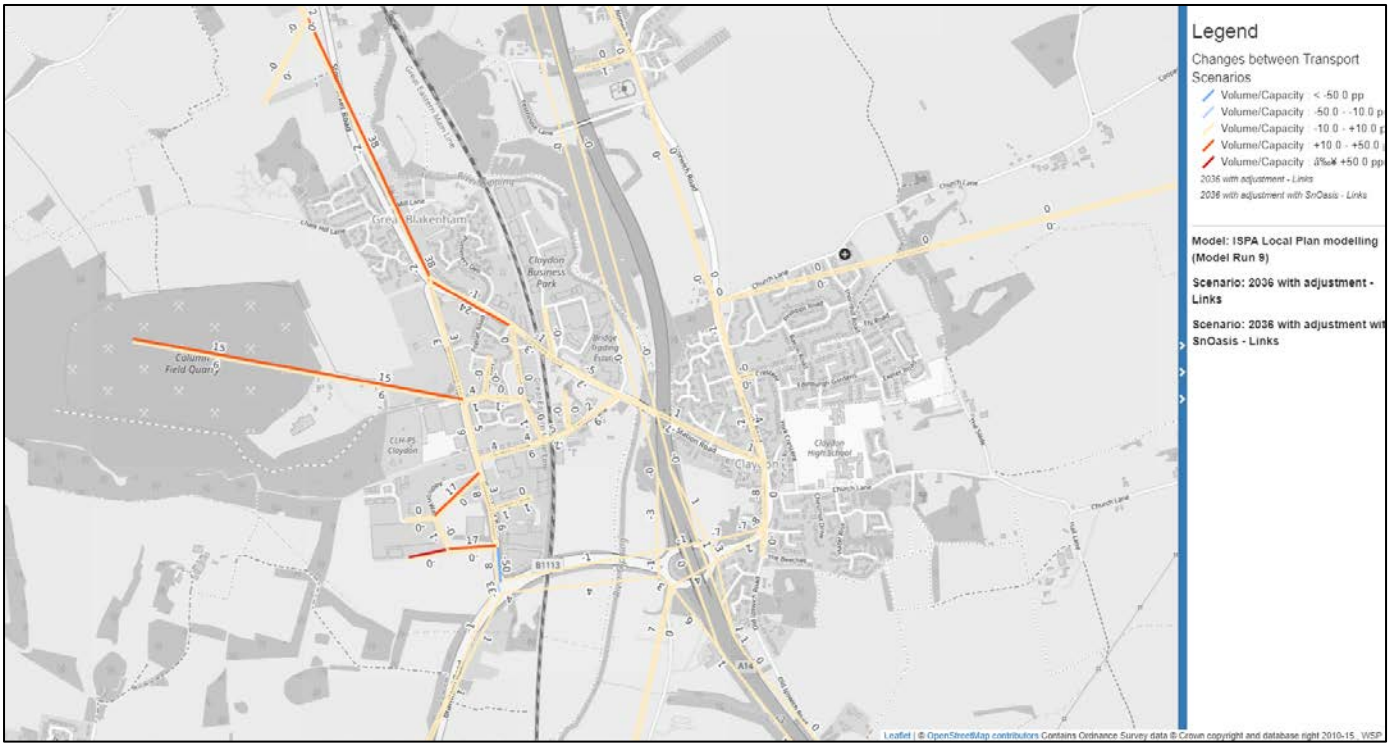

Figure 11: 2036 Local Plan Scenario, With SnOasis vs Without SnOasis, V/C Difference, PM Peak

The 2036 PM Peak V/C difference plot shows that the network links with the highest V/C difference change as a result of SnOasis are:

- Southbound approach from the northern arm in the Bramford Rd / Gipping Way Rd junction;
- Northbound approach from the eastern arm in the Bramford Rd / Gipping Way Rd junction;
- Eastbound approach from Addison Way and new road from the PortOne development onto Bramford Rd.

The southbound approach from the northern arm in the B1113 / B1113 Bramford Rd junction has resulted in a 50 percentage points decrease when comparing 'With SnOasis' vs 'Without SnOasis'. As described previously, this is probably due to the increase in saturation flow.

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The V/C ratio in percentage in the PM Peak model for “With SnOasis”, is presented in **Figure 12.**

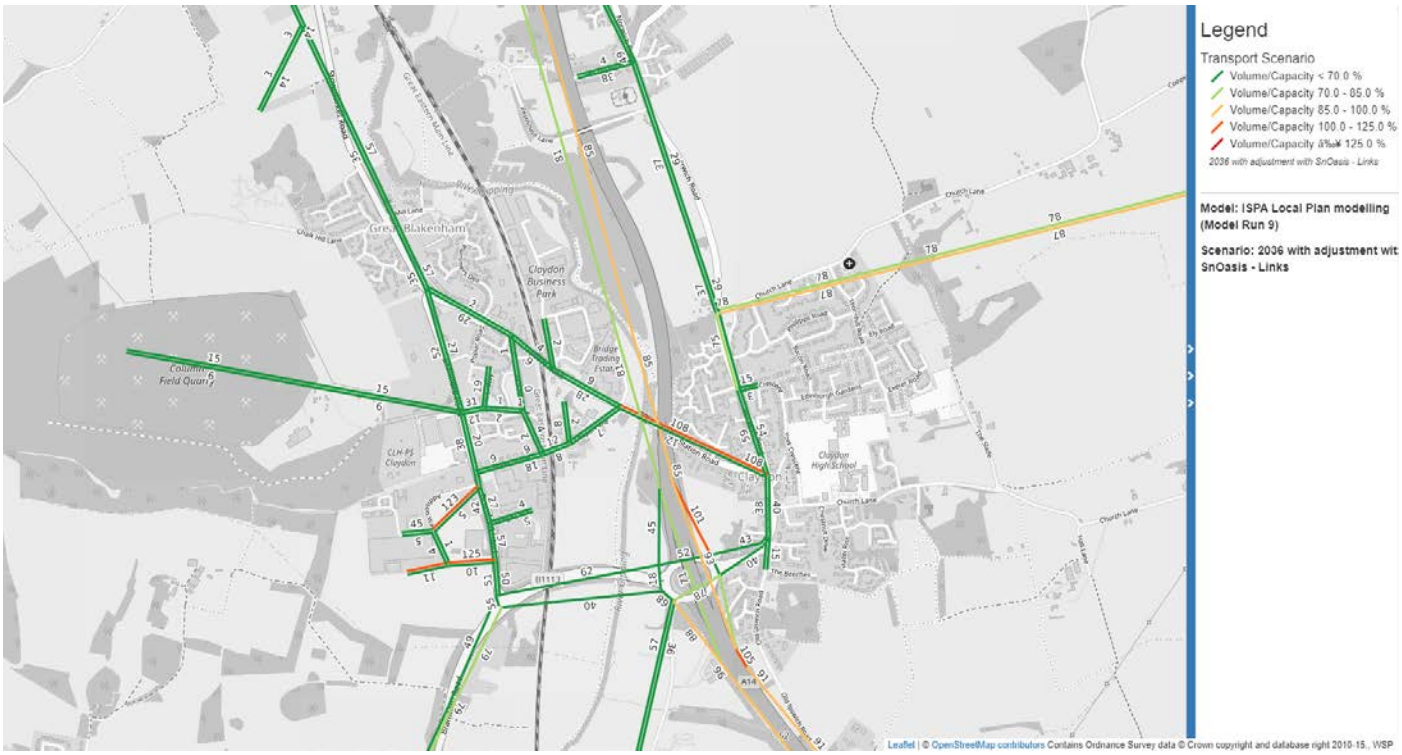

Figure 12: 2036 Local Plan Scenario, With SnOasis, V/C, PM Peak

As a result of the SnOasis development site, some side arms in Bramford Road, including PortOne development new road and Addison Way Rd, have had a V/C increase of 17 percentage points in the PM 2036 Peak. The V/C in these arms has reached 125% in this scenario.

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LINKS WITH A V/C GREATER THAN 100%

The list of links that have reached V/C higher than 100% in the AM Peak as a result of the SnOasis infrastructure changes, comparing scenarios 'with SnOasis' and 'Without Snoasis' is represented in **Table 12**. These are not the only links with V/C greater than 100%, but they are those ones that did not reach V/C of 100% in the 'Without SnOasis' scenario and have reached this threshold in the 'With SnOasis' scenario.

Table 12: 2036 Local Plan Scenario, With SnOasis vs Without SnOasis, Worst Approach Junctions, AM Peak

Name	District	2036 Worst Approach Without SnOasis	2036 Worst Approach With SnOasis
Cotswold Avenue / Dale Hall Lane	Ipswich District (B)	95	104
B1073 Burrell Rd / Willoughby Rd	Ipswich District (B)	98	100

Both junctions shown in **Table 12** were already nearing their capacity in the 'Without SnOasis' scenario, and slight changes in the actual flows in the network around them led the V/C ratio to increase to over 100%. Both junctions are relatively far from the development itself. This demonstrates the sensitivity of the strategic model when congestion is greater to even small changes in flow

The list of links that have reached V/C higher than 100% in the PM Peak, comparing scenarios 'with SnOasis' and 'Without Snoasis' is represented in **Table 13**. These are not the only links with V/C greater than 100%, but they are those ones that did not reach V/C of 100% in the 'Without SnOasis' scenario and have reached this threshold in the 'With SnOasis' scenario.

Table 13: 2036 Local Plan Scenario, With SnOasis vs Without SnOasis, Worst Approach Junctions, PM Peak

Name	District	2036 Worst Approach Without SnOasis	2036 Worst Approach With SnOasis
Valley Rd A1214 / The Avenue	Ipswich District (B)	99	100
Addison Way / PortOne Development	Mid Suffolk District	53	109

The Valley Rd A1214 / The Avenue junction had a V/C very close to 100% in the 'Without SnOasis' scenario. The SnOasis development generated minor changes in the demand and actual flows around that junction, which was enough to increase the V/C ratio to 100%+. The Addison Way / PortOne development road junction is located near to the SnOasis site access, in the south side of the Bramford Rd. The V/C increase in this junction was of 56 percentage points, leading to a V/C of 109%.

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NODES OVERALL V/C

The nodes overall V/C for the 'Without SnOasis' AM Peak scenario is shown in **Figure 13**.

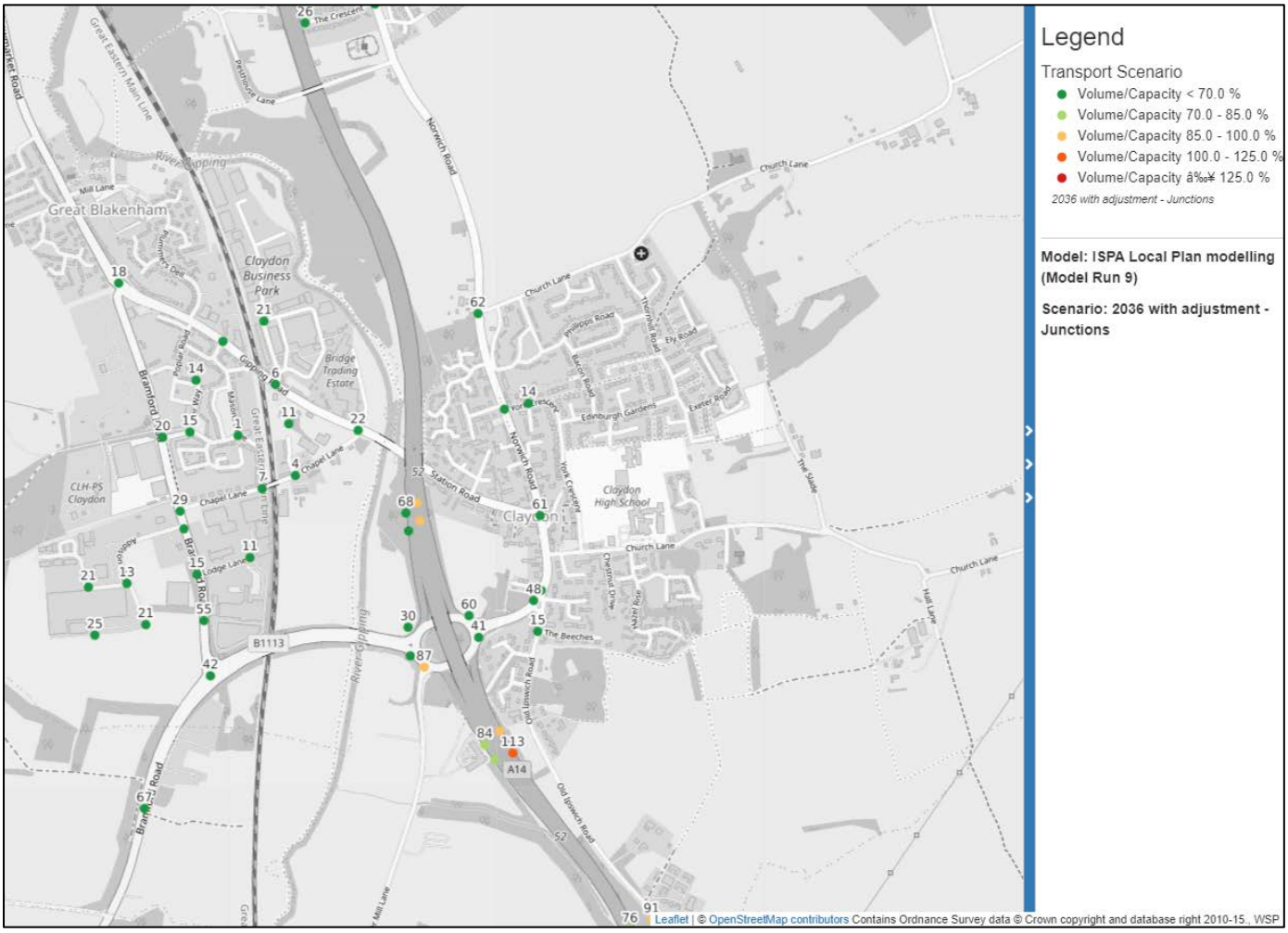

Figure 13: 2036 Local Plan Scenario, Without SnOasis, Overall V/C, AM Peak

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The nodes overall V/C for the 'With SnOasis' AM Peak scenario is shown in **Figure 14**.

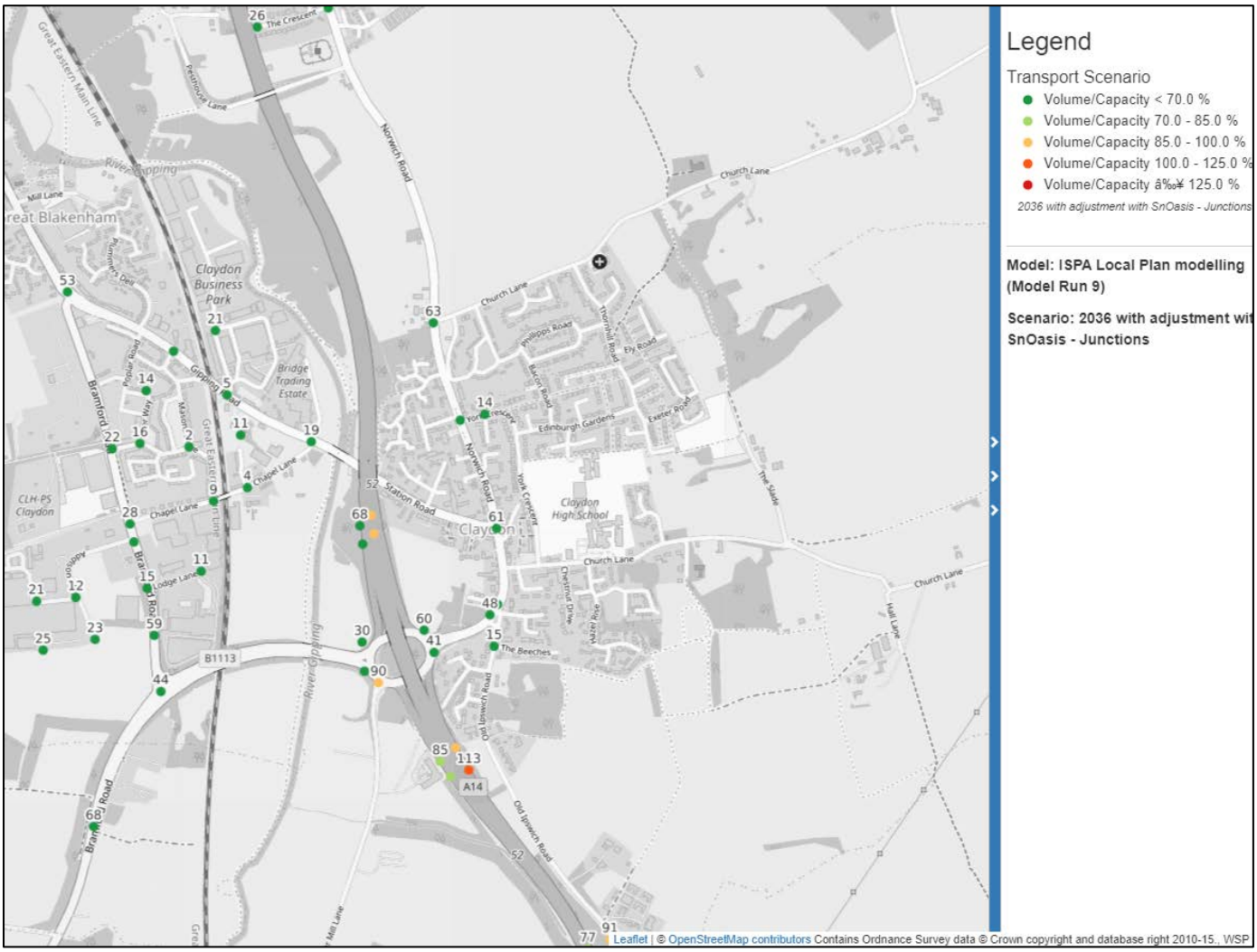

Figure 14: 2036 Local Plan Scenario, With SnOasis, Overall V/C, AM Peak

Comparing both 'With SnOasis' and 'Without SnOasis' scenarios in the 2036 AM Peak, it is possible to note that the only considerable V/C junction increase is in the Bramford Rd / Gipping Way Rd junction. In the 'Without SnOasis' scenario, this junction had the V/C ratio of 18% and 'With SnOasis' this value is of 53%, which represents an increase of 35 percentage points. However, the junction still has the V/C lower than 85%, showing that it would not be overly congested in the AM Peak, operating well within capacity.

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The nodes overall V/C for the 'Without SnOasis' PM Peak scenario is shown in **Figure 15**.

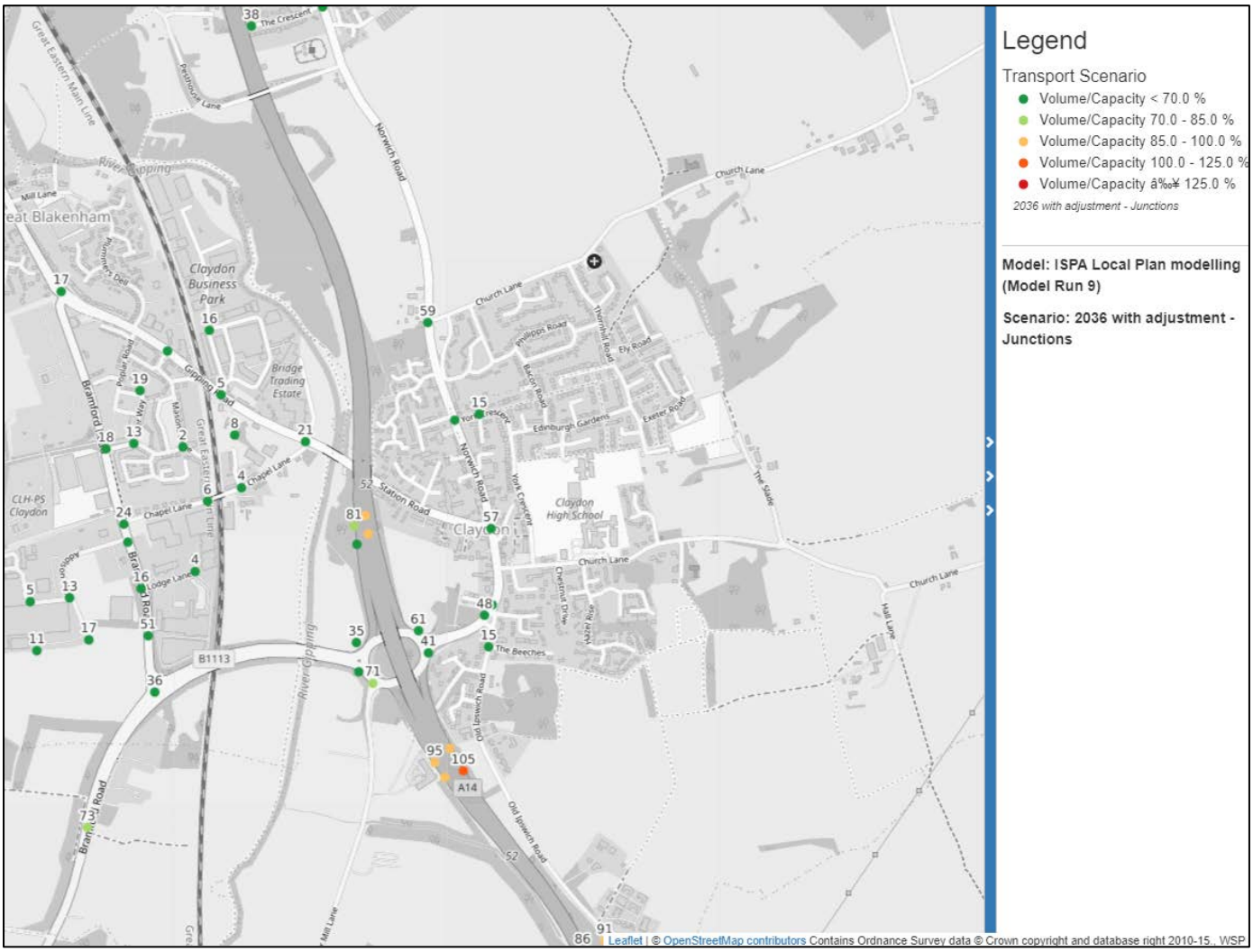

Figure 15: 2036 Local Plan Scenario, Without SnOasis, Overall V/C, PM Peak

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The nodes overall V/C for the 'With SnOasis' PM Peak scenario is shown in **Figure 16**.

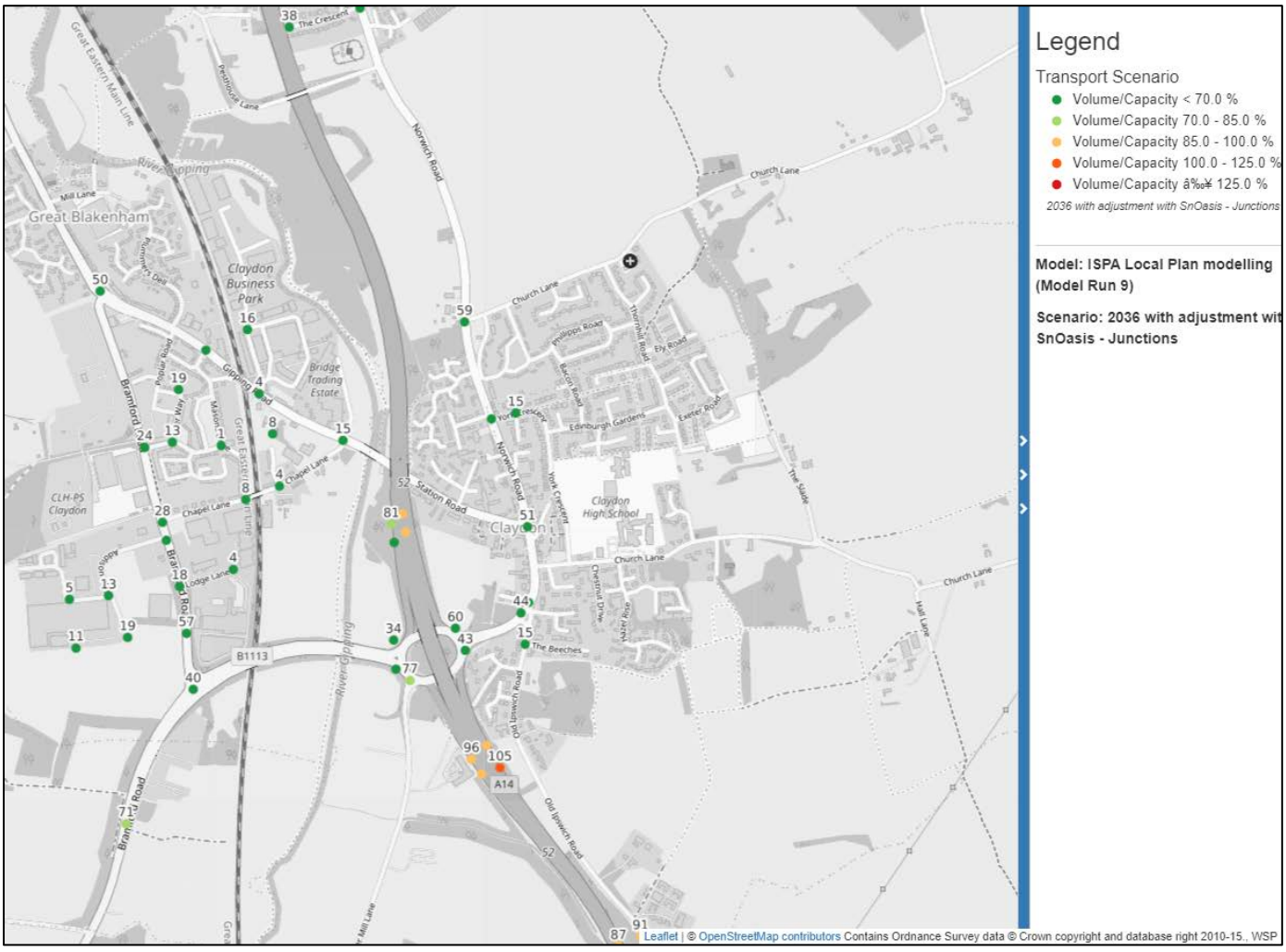

Figure 16: 2036 Local Plan Scenario, With SnOasis, Overall V/C, PM Peak

Comparing both 'With SnOasis' and 'Without SnOasis' scenarios in the 2036 PM Peak, it is possible to note that the only considerable V/C junction increase is in the Bramford Rd / Gipping Way Rd junction. In the 'Without SnOasis' scenario, this junction had the V/C ratio of 17% and 'With SnOasis' this value is of 50%, which represents an increase of 33 percentage points. However, the junction still has the V/C lower than 85%, showing that it would not be overly congested in the PM Peak.

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JUNCTIONS WITH A V/C GREATER THAN 85%

The list of junctions that have reached V/C higher than 85% in the AM Peak, comparing scenarios 'with SnOasis' and 'Without Snoasis', is represented in **Table 14**. These are not the only junctions with V/C greater than 85%, but they are the junctions that did not reach V/C of 85% in the 'Without SnOasis' scenario and have reached this threshold in the 'With SnOasis' scenario.

Table 14: 2036 Local Plan Scenario, With SnOasis vs Without SnOasis, Overall Junction V/C, AM Peak

Description	LPA	2036 Overall V/C without SnOasis	2036 Overall V/C with SnOasis
Buck's Horns Lane/Church Lane	Babergh District	85	87

The Buck's Horns Lane / Church Lane junction was already nearing its capacity in the 'Without SnOasis' scenario. Slight changes in the demand and actual flows in the network around this junction were enough to make their V/C ratio increase to over 85%. This junction is relatively far from the development itself; this again demonstrates the sensitivity of the strategic model in congested situations to minor changes in flow.

In the PM Peak, none of the network junctions reached V/C higher than 85% as a result of the SnOasis development changes in the 2036 Local Plan modelling.

SUMMARY AND CONCLUSION

The impacts of adding the SnOasis development to the ISPA 2036 Local Plan modelling have been shown in this TN report. Most changes in actual flows, delay, and V/C ratio are very localised to the Great Blakenham area. The most affected areas are Gipping Way Rd in the southbound direction into Bramford Rd / Gipping Way Rd junction in the AM 2036 Peak, and the side arms in Bramford Rd, including Addison Way and the new PortOne access, in the PM 2036 Peak.

There were some minor changes in other parts of the highway network, but these were mainly because the network was already close to capacity. Overall, the addition of the SnOasis development has generated more localised traffic, increased delays around the site, but there were only minor impacts to other parts of the highway network.