BURY ST EDMUNDS
TRANSPORT STRATEGY
2011 - 2031
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1 INTRODUCTION

Background

The Local Transport Plan, (LTP3), sets out Suffolk County Council’s long-term transport strategy from 2011 to 2031; the aim of this strategy is to support Suffolk’s economy and future sustainable economic growth. This approach identified eleven strategic towns based upon key areas of growth identified within the district and borough core strategies, this included Bury St Edmunds.

St Edmundsbury Borough Council adopted their Core Strategy, December 2010, and identified significant growth, 6360 new homes in Bury St Edmunds from 2009 to 2031.

Bury St Edmunds plays an important role in the regional economy, as a major employment centre, commercial centre and centre for key services. Suffolk County Council has always identified that the proposed growth, both within Bury St Edmunds and the surrounding borough and districts will result in increased traffic within the town. In 2011 the Local Transport Plan identified three key areas to mitigate the impact of increased traffic whilst facilitating growth:

- **Reducing demand for travel** – This included ensuring effective sustainable measures and travel plans for housing and employment development sites, encouraging people to travel by foot, bicycle or bus. The effective management of on and off street parking provision will be key to reduce peak time commuting whilst supporting short and medium stay parking to support the towns retail economy.

- **Efficient use of transport networks** – Ensuring key transport bus links between the town centre, West Suffolk Hospital, West Suffolk College, key employment areas and existing and proposed housing developments. Provision of real time passenger information makes travelling by bus more attractive and has been linked with improved punctuality and reliability. The introduction of urban traffic management control can also manage traffic and be linked to bus priority.

- **Improving infrastructure** – Enhancing and completing the existing walking and cycle routes in the town, including improved connectivity to the rail station. Improving infrastructure at the bus station. Improvements to junctions associated with future development to mitigate the impact of this growth.

The current economic climate has resulted in significant reductions in funding, key infrastructure improvements in the strategic towns will therefore need to be delivered in conjunction with development. The Council is committed to work with the New Anglia Local Enterprise Partnership to identify transport schemes that push forward business led growth, recognising that delivery of improvements will also require significant local authority contributions.
Vision 2031

Bury St Edmunds Vision 2031, adopted in September 2014, developed the 2010 Core Strategy. It identified housing growth of at least 5740 homes, with 4350 homes to be provided by five strategic areas to be delivered between 2012 and 2031. It also identified the allocation of 68.28 hectares of land east of Suffolk Business Park for employment; and the town centre to be the main focus for new retail, leisure and office development.

Transport assessment work undertaken on eleven key junctions around the town, including three of the A14 junctions, that would be affected by the growth. This work used the high level allocations to assess impacts at these junctions and provide indicative improvement options and costs. In line with the County’s transport strategy, this work identified the importance of reducing traffic through Smarter Choices and managing flows through the use of intelligent transport infrastructure, such as UTMC (urban traffic management control). Detailed improvements, to these and other sections of the highway network, will be identified as developments come forward.

As part of the work for Vision 2031, the principle of cumulative impact of the five strategic development sites was established; this recognised that the significant level of growth would have wider impacts than would normally be considered for an individual site and the need for contributions for town-wide junction improvements.

Transport Strategy 2011-2031

The transport strategy identified in 2011 is key to facilitating the growth identified for Bury St Edmunds, mitigating the impact through reducing the demand to travel by car, improving infrastructure and managing the highway network.

The growth identified for Bury is to be delivered over a 20 year period and the infrastructure improvements will be delivered throughout this growth period, in conjunction with individual development sites and as cumulative contributions and other funding becomes available.

This report summarises the work being undertaken by Suffolk County Council, this work will continue to evolve.
2 WORKSTREAM REVIEW

- This section highlights the work that has been completed and ongoing work streams progress undertaken in response to the strategy identified in the LTP. More detail will be provided on key areas of work in the following sections of this report. Construction of the Malthouse cycle and pedestrian bridge in 2014, providing a new route over the A14 to link the north of the town with the rail station and town centre.
- A successful bid to the LEP for £2.75m capital funding to fund sustainable transport improvements in the town scheduled to commence 2016/17.
- A successful bid to the LEP for capital funding contribution for the construction of the Eastern Relief Road. The scheme is estimated to cost £15m and funding includes £2m SCC funding.
- Working with developers to provide sustainable developments through the introduction of travel plans and Smarter Choices schemes; identify junction improvements to be delivered by developers and planning section contributions to transport improvements in the town.
- Delivery of LTP schemes to improve cycling and walking routes.

Ongoing work streams

- Analysis of census data to provide a review of travel behaviour within and out of Bury St Edmunds.
- A review of congestion sites within the town.
- Annual accident analysis and assessment.
- A review of the town’s cycle facilities to identify incomplete routes and potential improvements to the cycle network.
- Updated edition of the Bury St Edmunds cycle map produced June 2014.
- Developing a smarter choices initiative to promote softer measures to encourage businesses and individuals in the use of sustainable transport options.
- Engagement with bus operators to identify options to improve the use and operation of public transport in the town.
- Introduction of Real Time Passenger Information (RTPI) at the bus station and Western Way to provide up to the minute information on bus arrival times.
- Negotiation with rail partners Abellio Greater Anglia and Network Rail to improve the access to, and safety of Bury rail station. Improving the station as a transport hub for the town.
- Urban Traffic Management Control report to review junction throughput at the signalised junctions.
- Promotion of A14 improvements in Suffolk through the Suffolk Chamber of Commerce Initiative. Highlighting the need to improve the four key A14 junctions in Bury St Edmunds.
3 TRAVEL BEHAVIOUR

The Bury St Edmunds Vision 2031 identified the need for 5,740 new homes in the town by 2031 to meet the projected demands from the growing population of the area. A significant amount of this growth is allocated to a small number of sites, as detailed in the table below, with most growth on greenfield sites.

<table>
<thead>
<tr>
<th>Site</th>
<th>Developer</th>
<th>Size  (Ha)</th>
<th>No. of Homes</th>
<th>Additional Development</th>
<th>Estimated Start Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>North West</td>
<td>Countryside Homes</td>
<td>76.5</td>
<td>1050</td>
<td>New relief road from Tut Hill to Mildenhall Road</td>
<td>2015/16</td>
</tr>
<tr>
<td>Moreton Hall</td>
<td>Taylor Wimpey</td>
<td>34.1</td>
<td>500</td>
<td>Eastern Relief Road – Skyliner Way to A14 Junction 45</td>
<td>2016/17</td>
</tr>
<tr>
<td>West</td>
<td>Bellway Homes</td>
<td>54.3</td>
<td>450</td>
<td>Site allocated for the relocation of West Suffolk Hospital. Relief Road</td>
<td>2019/20</td>
</tr>
<tr>
<td>North East</td>
<td>Berkeley Homes</td>
<td>89.5</td>
<td>1250</td>
<td></td>
<td>2018/19</td>
</tr>
<tr>
<td>South East</td>
<td>Hopkins Homes</td>
<td>74.9</td>
<td>1250</td>
<td>Relief road linking Rougham Road to Sicklesmere Road.</td>
<td>2017/18</td>
</tr>
<tr>
<td>Station Hill</td>
<td>Hopkins Homes</td>
<td>6.64</td>
<td>300</td>
<td></td>
<td>2015/16</td>
</tr>
<tr>
<td>Tayfen Road</td>
<td>Pigeon Developments</td>
<td>4</td>
<td>200</td>
<td></td>
<td>2018/19</td>
</tr>
</tbody>
</table>
3.1 Journey to work analysis

To understand the potential impact of growth on the town's highway network during the morning and evening peak periods, information is required on journey to work trips. Census data is the most comprehensive and widely used tool for measuring travel behaviour and uses the data from the surveys journey to work questions to provide origin and destination information. The survey provides valuable and reliable information on current conditions and trends in local travel. The 2011 census data is the most recent information and this has been used in this analysis.

Origin-destination surveys provide a detailed picture of trip patterns and travel choices of a settlement or region’s residents. Trips are defined as one-way movements, from where a person starts (origin) to where the person is going (destination). Trips can be classified under three categories:

- **Internal** – From one point to another within the study area
- **External** – From one point within the study area to another outside. Significant proportions of workers originate or finish their journey outside of the town’s boundary. Due to the distances covered the majority of these trips are by car at peak times.
- **Through** – Both points starting and ending outside the study area but traversing through the zone.

This analysis utilised internal and external data; there is considerable uncertainty on routes taken with the “through” category and therefore this was not used.

The census surveys collect valuable data related to households, individuals and trips. This information provides detail of travel patterns and characteristics; measure trends; provide input to travel demand model development, forecasting, planning for area-wide transportation infrastructure needs and services; and monitoring progress in implementing transportation policies.

For this study internal flows were examined at electoral ward level, these wards contain on average about 5,500 residents and are at a detailed enough resolution to distinguish between origin and destination. These wards are also accompanied with local identifying names for easy comparison. Electoral wards for Bury St Edmunds have remained consistent from the 2001 and 2011 census allowing comparison between the two.

External flows areas measure between district enable the influence Bury St Edmunds has on the wider areas to be assessed.
3.2 Internal Movements within Bury St Edmunds

Bury St Edmunds is comprised of nine electoral wards.

The census data shows that 40% of Bury St Edmunds workforce is derived from the town itself, with over 10,000 of the estimated 26,000 working population moving between wards from home to workplace within the town.

The analysis shows that Abbeygate ward is the largest employer of Bury St Edmunds residents; it contains more than double the amount of workers than the next highest ward. Its central location means the ward draws significant numbers from all its surrounding neighbours.

Southgate ward is the second highest destination, reflecting the significance of the hospital as an employer in the town. Moreton Hall and Eastgate wards are close behind Southgate. Eastgate ward is dominated by industrial estates, it contributes small numbers to the overall workforce but is the third highest destination for workers.

Northgate, St Olaves and Westgate wards show relatively low levels for workforce destination reflecting their dominant residential profile.

Moreton Hall has the largest population of the wards, approximately a fifth of which work within the ward resulting in small proportion of internal ward trips. The majority
of Bury St Edmund’s wards have a mix of both residential and employment areas but very small percentages live and work within in their own ward.

Changes since 2001

Ward boundaries have remained consistent from the 2001 census, enabling patterns or trends in the town to be identified. The most significant change in the town over the 10-year period is the decrease in the number of employees who live and work in the town an overall 13% reduction. All output areas in Bury St Edmunds have experienced significant reductions in the number of residents that live and work in the same ward. The census also highlights the reduction in the industrial and retail sectors with the Northgate, St Olaves and Westgate wards, increasing their residential profile. The total number of individuals working in the town has increased by 3% during the period.

Method of travel

The distances across the town indicate that sustainable travel within Bury St Edmunds is considered to be a viable alternative to using the car. Understanding mode choice from the different wards can highlight areas for improvements to the walking, cycling and bus travel networks.

The census data also allows for the method of travel to work to be identified and analysed. For Bury St Edmunds 50% of internal movements are by car. Moreton Hall has one of the highest rates of car usage for internal trips accounting for 62% of trips. The ward also has some of the best cycle and walking infrastructure in the town. The A14 severs Moreton Hall from the rest of the town, highlighting the need to improve connectivity to encourage more short distance trips out of cars and on to more sustainable means. Appendix A shows the breakdown of internal flows within the town and which wards employees are travelling from.
3.3 External Movements to Bury St Edmunds

The majority of the Bury St Edmunds workforce comprises individuals commuting from out of town locations to work in Bury St Edmunds. Appendix B shows the origin of inward movements of commuters into Bury St Edmunds town from the wider borough and adjacent districts.

The analysis shows that 80% commuters come from within Suffolk, as would be expected the highest contribution is from the wider St Edmundsbury Borough, (31%), and neighbouring Mid-Suffolk (25.1%). The remaining 20% commute from the neighbouring counties of Norfolk (12%), Cambridgeshire (6%) and Essex (2%).

Abbeygate is the final destination for 44% of the total external trips. It is expected that the majority of workers would utilise the A14, putting significant pressure on the off and on slip roads and the associated key radial routes on the local highway network. In general, the movement of labour into Bury St Edmunds is from East to West.

Changes since 2001

The 2001 census data was compared against the current 2011 information to ascertain the changes over the study period. External movements originating from outside the towns boundary have increased by 15% since 2001. Cambridgeshire was the largest contributor to this growth followed by Suffolk.

The main mode of transport into Bury St Edmunds from external origins is car at 85% of trips. 8% make use of sustainable transport options with a high number of users in the town making use of the railway station.
3.4 External Movements from Bury St Edmunds

Bury St Edmunds receives more employees from neighbouring districts than it loses; it therefore receives a net gain to its working day population. The movement of labour still moves Westwards with commuting patterns to the districts of neighbouring Forest Heath (17.8%) and further afield to Cambridgeshire (14.9%). The A14 plays a vital role in the movement of commuters in the town and facilitates the outward migration. Appendix C shows the total number of movements out of the town for work. Unlike the movements into the town there are reductions in the number travelling to Norfolk and those travelling Eastwards especially to Mid Suffolk where there are high movements in to the town.

Changes since 2001

Comparison with the census data shows a slight increase in residents, (13%), choosing to work outside of the town since 2001. The most significant draw has been to Cambridgeshire with the expansion of ‘Silicone Fen’, numbers have risen by 20% to the County. Neighbouring counties and districts also increased but not to the extent of Cambridgeshire.

The dominant mode of transport for external trips is the car at 80%, 18% is made via sustainable needs such as public transport, by foot or cycling, with a large proportion walking and car sharing.
4 CONGESTION

Data was analysed from a number of different sources looking at the AM peak, 12.30pm and the PM peak. The analysis included data from:

- Google Traffic (Congestion App – Google Maps)
- Traffic Master (Average Speed and Minutes per Mile)

Google Traffic maps were used to give an overview of congestion in Bury St Edmunds, providing a visual representation of junctions and routes. This data uses a RAG, (red, amber, green), system to identify different levels of speed indicating the level of congestion, length of tailback and the number of arms affected at junctions. Routes and points on the network can be identified and isolated for more intrinsic analysis in Traffic Master.

Traffic Master provides a more reliable and accurate output showing comparative average speeds and minutes per mile; data is collected from numerous Global Positioning Systems (GPS) to monitor live congestion levels. This tool provided empirical data which can be used to prioritise ranking of the congested areas.

Considerations to information on travel to work flows, areas of interest (employment, education, car parks, supermarkets and strategic greenfield) and existing plans (Bury Vision 2011-2031) were also used alongside the Traffic Master analysis in ranking the congested areas.

Typical Congestion Pinch Points Mapping at AM and PM Peaks
Traffic Master and Google Maps Analysis

The analysis identified the following areas experiencing increased traffic pressure during the peak periods.

- Angel Hill / Eastgate Street
- Cullum Road roundabout
- Tollgate Lane junction
- Newmarket Road / Western Way signals
- Compiegne Way / Tayfen Rd / Out Northgate cluster
- Orttewell Road signals
- Parkway double mini-roundabouts
- Risbygate Street / Parkway roundabout
- Bedingfield Way / Rougham Road / Sicklesmere Road / Cullum Rd corridor
- Vinery Road signals

This piece of work highlighted issues at additional junctions to those assessed in the 2010 Aecom – Vision 2031 work. The additional junctions included Angel Hill / Eastgate Street, Tollgate Lane junction, Orttewell Road signals, Newmarket Rd / Western Way, Bedingfield Way junction and Vinery Road. A plan showing the location of the junctions can be found in Appendix D.
Junction Matrix

The traffic mapping was reviewed for each junction on every weekday for the following time, 8.30am, 12.30pm and 5.30pm. This data was assessed alongside the other infrastructure and access provision to rank the locations, scoring rated the worst performance as 1 and the best as 10, with a low score indicating higher levels of congestion.

The table below shows the ranked junctions.

<table>
<thead>
<tr>
<th>Location</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rougham Road corridor</td>
<td>37</td>
</tr>
<tr>
<td>Tollgate Lane</td>
<td>39</td>
</tr>
<tr>
<td>Cullum Road</td>
<td>40</td>
</tr>
<tr>
<td>Risbygate Street / Parkway</td>
<td>45</td>
</tr>
<tr>
<td>Compiegne Way</td>
<td>46</td>
</tr>
<tr>
<td>Vinery Road</td>
<td>46</td>
</tr>
<tr>
<td>Parkway Double Mini</td>
<td>65</td>
</tr>
<tr>
<td>Angel Hill / Eastgate Street</td>
<td>71</td>
</tr>
<tr>
<td>Orttewell Road</td>
<td>78</td>
</tr>
<tr>
<td>Newmarket Road / Western Way</td>
<td>79</td>
</tr>
</tbody>
</table>

The ranking provides a guide as to the more problematic locations that currently exist prior to housing growth. The ranking system takes into account the cumulated congestion over the time periods reviewed together with the level of traffic passing through the junction, however, the scores do not indicate the relative scale of congestion, ie double the score does not mean double the congestion.
5 ACCIDENT ANALYSIS

Suffolk’s Road Safety Strategy from 2012 to 2022 sets out how the Suffolk Roadsafe Partnership will continue to work to reduce the number of KSI’s (killed and seriously injured) on Suffolk’s roads. There has been a move towards concentrating efforts on certain groups of road users. In line with Suffolk’s Local Transport Plan (LTP) 2011-2031 aim of supporting Suffolk’s economy and future sustainable economic growth; the road safety strategy will complement this by making travel safer and healthier. This strategy aims to reduce the dominance of motorised vehicles and improve the conditions for cycling and walking, and is an attempt to shift onus of responsibility onto the user of the vehicle that will do most damage, while accepting that all road users have a responsibility for road safety.

In Suffolk the key groups of concern, vulnerable users, have been identified as:

- Motorcyclists - especially those riding bikes over 500cc. These have a higher proportion of collisions than the proportion of riders.
- Young drivers/riders (16-24) - there is a higher proportion of collisions among this group though there are issues related to high youth unemployment and insurance costs that need to be taken into account.
- Pedestrians (especially school age children in deprived areas) - a vulnerable user group, where perceptions of danger can also mean a reduction in frequency of walking.

The County undertakes an annual review of accidents.

Bury St Edmunds Overview

Bury St Edmunds is a strategic town in the county and an important provider of employment and services to both the town and the wider rural communities. The town contains a large proportion of these vulnerable users. In line with Suffolk’s Road Safety Strategy and the LTP, accident data has been analysed to identify clusters of accidents with special consideration given to those involving the vulnerable road user groups.

Six sites have been identified as prolific accident sites within the past three years. These include:

<table>
<thead>
<tr>
<th>Area</th>
<th>No. of Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>A14 Junction 42</td>
<td>28</td>
</tr>
<tr>
<td>A14 Junction 43</td>
<td>20</td>
</tr>
<tr>
<td>Compiegne Way &amp; Tayfen Road</td>
<td>16</td>
</tr>
<tr>
<td>A14 Junction 44</td>
<td>9</td>
</tr>
<tr>
<td>Parkway Double Mini Roundabouts</td>
<td>7</td>
</tr>
<tr>
<td>Risbygate St/Parkway Junction</td>
<td>6</td>
</tr>
</tbody>
</table>
Accident Site Analysis

Although these levels give a good indication of the possible issues at the junctions, these figures should be analysed looking at the factors affecting the accident and the severity of these collisions in order to gauge the overall road safety issue. Some of the causes of collisions are due to driver error and as such are difficult to rectify whereas issues to do with surface dressing, line of sight, junction design or lack or crossing provision can be rectified. Details of the accidents locations identified in the table above are provided below:

- A14 Junction 42 – Majority of accidents are shunts due to driver error. Two ‘serious’ casualties. None involving pedestrians or cyclists.
- A14 Junction 43 – Majority of collisions are shunts or are due to excess speed. Two ‘serious’ and one fatality in the last three years. None involving pedestrians and cyclists.
- Compiègne Way & Tayfen Road – A mixture of shunts, speed and failing to give way on the cluster site. Four serious casualties of whom three were pedestrians and one motorcyclist. Two accidents involving cyclists.
- A14 Junction 44 – No overall trend in the cause of accidents. All injuries at the location are “slight.” One of the collisions involved a cyclist.
- Parkway Double Mini-Roundabout – Junction layout is the principal cause of accidents. One serious accident over the three year period.
- Risbygate Street / Parkway junction – Majority of accidents are caused by vehicles failing to look properly. Two serious accidents at the site, of which one involved a cyclist.

It should be noted that the accident data collected is where there has been an injury. It does not include damage only data or unreported accidents. It is expected figures for collisions may therefore be under reported.
6 CYCLING & WALKING

Walking and cycling are key elements of sustainable travel in addition to providing significant health and economic benefits.

The Copenhagen heart study (Andersen et al, 2000) showed that three hours of commuting by bicycle per week significantly reduces the mortality risk. Similarly, recent analysis of a number of studies by the WHO, 2011, indicated that a habitual walker also significantly reduces the relative risk of mortality.

Physical activity programmes involving 30 minutes of exercise a day have been shown to reduce short-term sick leave by between 6% and 32% (WHO, 2003). In the UK the average absence of employees is 6.8 days per year, of which 95% is accounted for by short-term sick leave (CBI, 2003). Therefore, for each employee who takes up physical exercise for 30 minutes a day for 5 days a week as a result of a walking or cycling intervention, the annual benefit to employers is likely to be (on average) at least 0.4 days gross salary costs (6% of 95% of 6.8 days).

The cycle network in Bury St Edmunds was reviewed in 2010 as part of producing the Local Transport Plan 2011 – 2031. This work informed a programme of work to provide cycling infrastructure improvements in the town. Improvements to provide benefits for cycling often provide benefits to walking, in particular the provision of safe crossing points.

Cycling Review

This work is now being updated as part of the Cycle Towns Review. This will enable improvements to be linked to development sites and identify schemes to be implemented as and when funding becomes available from developers and other sources.

The review included a cycling survey of the town, reviewing connectivity of key attractors such as employment, schools, retail and leisure sites with residential areas. This information has been mapped and a list of potential cycle route improvements identified, additional feasibility and design work will be required to progress these schemes including confirming land ownership. In addition to delivery through developments, this work will provide evidence for any future external funding opportunities that come forward.

The cycle proposals including an annotated map and spreadsheet have been made available local stakeholders including St Edmundsbury officers, cycling groups and County Councillors to allow updates to the proposals based upon local insight.
Cycle Map

The cycle map for Bury St Edmunds was updated in 2014 following the opening of the Malthouse cycle bridge. This is available both in paper and electronic form. See Appendix E

Suffolk Strategies

Suffolk County Council have completed strategies for walking and cycling, the links to these documents and supporting information are provided below. In May 2016, the Suffolk Year of Walking will also be launched, this will include many different events.

http://www.suffolk.gov.uk/roads-and-transport/cycling/

http://www.healthysuffolk.org.uk/assets/Useful-Documents/Final-Active-for-Life-WS.pdf

Rail Station

The County is working with Abellio Greater Anglia to provide improved cycle parking facilities at the Rail Station.

Cycle Infrastructure

A number of cycle infrastructure schemes have been implemented as part of the Council’s transport strategy in Bury St Edmunds. Improvements for cyclists also provide improvements for pedestrians. These schemes include;

- Malthouse cycle bridge over the A14
- Improvements to Malthouse Lane to provide an improved link to the rail station and the town centre
- Shared off road cycle link on Tollgate Lane
- Improved access for pedestrians and cyclists on Northgate Avenue/Tollgate Lane
- Bedingfield Way to Raedwald Drive Bedingfield Way pedestrian crossing
- Town Centre to the Hospital route – recent success at public inquiry

Further improvements have also been identified and are part of ongoing work.
7 SMARTER CHOICES

Work to support the Bury St Edmunds Vision 2031 highlighted the importance of the Smarter Choices approach to deliver mitigation of the planned growth. There are two elements to this approach; development related schemes that focus on existing residential areas adjacent to the development sites and a business focussed approach. The first element will be delivered by developers and the second by the County.

Building on the success of the Lowestoft Local Links (LLL) scheme, which is now at the end of its three year Local Sustainable Transport Funding, attention has now turned other urban areas facing similar issues to Lowestoft. Traffic congestion caused by short intra-town trips of less than 3 miles coupled with single occupancy car trips are to be targeted. In promoting alternative means to the short cross town car journeys the scheme will seek to change the travel behaviour of the local community. The initiatives will be promoted by Suffolk County Council working with the businesses in the town to engage their staff in the use of sustainable transport.

The core objectives of the smarter choices project will be to

- Support and grow the local economy by reducing congestion and journey-time delay by enhancing access to employment and other essential services.
- Reduce carbon emissions by encouraging the use of more sustainable transport such as public transport, walking and cycling.

The campaign will also help to maximise the return on investment in sustainable transport infrastructure such as the capital funds allocated by the LEP for Bury St Edmunds sustainable transport.

The recently-delivered Lowestoft sustainable travel programme (2012-2015) achieved 10% reduction in the number of car trips to work with a benefit-cost ratio of £6.30 for every £1 invested. The campaign in Bury St Edmunds will seek to emulate the success of Lowestoft.

It is anticipated that the scheme will align with events such as the Suffolk Year of Cycling 2015/16, Bike Friendly Bury and the Year of walking 2016 to ensure the message is communicated and the objective is achieved.
8 BUS SERVICES

Bus travel is a key element of sustainable transport. The current provision is hub and spoke focussed, with most services travelling into the town centre, this model results in passengers wanting to travel to non-town centre destinations, for example the Hospital, having to change at least once, making journey times longer, less reliable and less attractive.

To look at options to improve the bus services, the Council held a meeting with bus operators to discuss issues. Resolution of these would help optimise the bus service network in order to provide efficient and effective bus routes in the town. Among the immediate concerns raised were

- Access to West Suffolk hospital is currently a 2 leg trip for most people
- Moreton Hall bus route is time consuming as a result of the design of road network
- Real Time Passenger Information (RTPI), for bus station stands and summary screen would help promote bus travel
- The bus station has capacity issues and bus stand lengths are not adequate

The RTPI for Bury is imminent with 2 screens for Western Way and 14 at the bus station many of the bus operators have already enabled real time bus data on their fleet. The data is already available on line for buses provided by these operators and will be active via the on street screens as soon as the RTPI is operational.

At a strategic level the following ideas were developed at the Bury Futures meeting looking to develop the public transport offering in the town.

- Strategic review of housing growth areas and likely future Public Transport demand as a result of this growth.
- Strategic review of current traffic hotspots and congestion areas
- Undertake Surveys of current users, bus operations and stakeholder consultation (For example - mobility and OAP groups, Hospital, College and town centre business groups) to identify levels of demand and current issues in operations;
- Operational analysis of current bus network;
- Review of land ownership within County and Borough Control
- Identify a long list of potential PT improvements based on a "blank sheet" review of infrastructure/network improvements;
- Bus station stand allocation/utilisation reviewed;
- Options for alternative interchanges to be identified
- Short list of Public Transport improvement options based on appraisal of accessibility, operations, integration and deliverability within the town centre;
- Further meetings with key stakeholders to discuss short list, including operators workshop; and
- Based on feedback develop concept designs for any infrastructure/interchange improvements;

All of the bus operators were keen to be involved with this work.

As part of the LTP, the County has delivered a programme of DDA bus stop improvements throughout the town and a new bus stop on Orttewell Rd.

**Development**

The inclusion of bus services to new development sites is an important part of delivering a sustainable development. The provision of bus services together with incentives for new residents to use the services are therefore an important element of the travel plans.
The Council is working with Abellio Greater Anglia and Network Rail to investigate options to improve the passenger experience at Bury St Edmunds rail station. The focus is on improving the accessibility and safety in and around the station and to improve the use of sustainable transport for passengers accessing the site.

Among the proposals the reuse of part the station building as an art gallery is being discussed as part of the rejuvenation of the station and forecourt area. This proposal would improve passenger waiting facilities and there is potential for an art trail to better connect the station with the town centre.

The forecourt area is also under discussion to extend the use of the area as a transport interface hub with bus, taxi, cycling and pedestrian all key to the transport links into the rail service.

Work is ongoing to set out to Network Rail, the Department for Transport (DfT) and rail franchise bidders the requirements for improving St Edmundsbury railway station and the passenger rail services that stop there. Suffolk County Council has responded to a series of consultations by Network Rail and the DfT on rail infrastructure investment and the new East Anglia Rail Franchise. In its response, the County Council has called for a half-hourly passenger rail frequency between Ipswich and Cambridge, better rolling stock and shorter journey times. In addition to this, the County Council has demanded that electrification of the line between Felixstowe and Peterborough extends from Newmarket to Cambridge, and that additional track capacity is provided from Dullingham to Cambridge. Such infrastructure will not only enable a half-hourly service between Bury St Edmunds and Cambridge but will also be essential for future proofing the line for a new rail service between Bury St Edmunds and Oxford as part of the new East West Rail Link.

The County Council has also demanded that the current two hourly Ipswich to Peterborough passenger service, which stops at Bury St Edmunds railway station, is made hourly, providing a more frequent service between Bury St Edmunds, the Midlands, the North and Scotland, as well as Stansted Airport (via Ely).

SCC are continuing to work with its partners and senior politicians to lobby for improvements. Further information about the criteria for the new rail franchise, and the funding decisions that will be made on rail investment will be available in the autumn.
10 JUNCTION ASSESSMENT

In response to the Bury St Edmunds Vision 2031, transport assessment work was undertaken on eleven key junctions around the town, including three of the A14 junctions that would be affected by the growth. This work used the high level allocations to assess impacts at these junctions and provide indicative improvement options and costs.

As developments come forward there will be more certainty about development related traffic flows to inform a more detailed assessment of these and other junctions. These improvements will be delivered either by the developer or with cumulated developer contributions.

An assessment of junctions incorporates much of the work described in this report, looking a capacity, congestion, accidents and desire lines for walking and cycling. In the report for Vision 2031, it was highlighted that delivering mitigation to the proposed growth would need to include traffic control and indicated using Urban Traffic Management systems, (UTMC).

UTMC Review

In 2012 there was an investigation into the installation of an UTMC system within Bury St Edmunds and the possible implications it would have on the road network. This report examined all of the junctions on the main routes in and out of Bury St Edmunds; these include A1302, A143, A1101 and A14, more junctions were reviewed in this report than in the Vision. Not only was traffic flow examined but also accessibility for both cyclists and pedestrians at these junctions.

UTMC is an Intelligent Transport System platform that allows for the integration of individual traffic management and control tools through the exchange of information between them via a common database.

The most prominent UTMC traffic management tool is Urban Traffic Control (UTC). UTC is a term used to describe the technique of co-ordinating traffic signals through a centrally located computer. In areas where signals are relatively close together and traffic flows are high a UTC control system called SCOOT is used and benefits are achieved by progressing platoons of traffic through routes in an organised fashion.

Installing a UTMC system gives improved control over the road network. It allows the operator to prioritise certain modes of transport such as walking or cycling and make most efficient use of the network capacity left for other road users.

For the UTMC system to be installed the uncontrolled roundabouts on the A1302 would need to be changed into signal controlled junctions. The report details that the number of lanes on each approach would have to be increased at least match or even exceed capacity. It must be examined as to whether existing highway land is
adequate to achieve this at each site or if land must be purchased to make the conversion viable.

It is noted that the Parkway/Risbygate St and Parkway/Kings Road junctions currently enable access to and from the off-street car parks and are unable to be converted into a fully signalised junction due to the requirement of the U-turn manoeuvre needed to access the car parks adjacent. This could be overcome by only signalising the existing roundabouts or introducing a new signalised junction at the car park accesses.

The A14 interchanges would benefit from re-assessment and re-configuration. Unfortunately they are both ultimately limited in their configuration by the need to prevent queuing on the trunk road but some small capacity improvement may be gained from new method of control and signal timings.

Solutions to this problem may be to look at increasing queuing capacity on the A14 slip roads by adding another lane or installing VMS signs on the A14 warning drivers of the congestion and allowing them to make the choice to take one of the other entrances off the A14 into BSE.

Further consideration of this work identified three cluster sites that could be operated as SCOOT regions, these regions could then be linked. This would provide more local flexibility in managing traffic. The congestion analysis coupled with the UTMC report identified a number of site locations, which would benefit becoming SCOOT regions. These regions are identified below and in Appendix F

- Cluster 1 – Tayfen Road, Station Hill & Compiegne Way.
- Cluster 2 – Parkway/Risbygate St, Parkway/Kings Road & Parkway Double Mini Roundabouts.
- Cluster 3 – Rougham Road, Southgate Green Roundabout & Cullum Road Roundabout.

These sites are also present as some of the worst areas for traffic congestion and in order to mediate the impact of further growth in the town should be examined as an area rather than as individual junctions. Any works done at one of these cluster site junctions could have an impact on the others.

**Delivery**

To date junction improvements have been secured for the Newmarket / Western Way junction, the Newmarket / Oliver Rd junction and Tollgate Lane junction through the North West Bury St Edmunds development. The first two improvements will be delivered by the developer, see Appendix G
A scheme to improve the Tollgate Lane junction has been included with the planning section 106 contributions from the North West Bury St Edmunds developers; this will deliver either the proposed scheme or a contribution of £245k towards an enhanced scheme. The Council is currently commissioning modelling work to assess scheme options for this junction to provide greater improvements than could be delivered through the development.

Cluster 1, Compiegn Way / Tayfen Rd / Out Northgate, is key to providing improved pedestrian and cycle links between the town centre and the rail station. There is also potential to provide improved bus links along Station Hill. Modelling work has been commissioned to look at this junction cluster.

Appendix H pulls together information from the different work streams for the key junctions identified within the town.

**A14 Junctions**

The A14 provides several points of access to Bury St Edmunds. There are four junctions, from J42 to J45. The impacts on these junctions are required to be considered by the significant development sites and have also been identified as key areas for improvement in the Suffolk Chamber of Commerce A14 Initiative. The County work closely with Highways England to consider the impact of all the significant development sites in Bury St Edmunds.

The Eastern Relief Road will provide on and off slip road improvements to J45.
11 PARKING

There are three types of parking within Bury St Edmunds, on-street, off-street and residents parking. Parking provision and pricing is key to demand management and needs to be considered as part of the overall package for managing traffic within the town. Understanding the interaction of the different elements of parking within the town will be essential in managing peak time traffic levels.

On-Street Parking

There is charged for on-street parking within the town centre at ten locations, the pricing of this parking is set higher than off-street parking to reflect the premium of the central locations.

Off-Street Parking

St Edmundsbury Borough Council has been undertaking a review of their off-street parking capacity and pricing. Details of the report will be available soon, however, headline issues and actions from the draft report are:

1. Bury St Edmunds has a current deficiency of 100 spaces at peak times (Weekends and Wednesday) in the town centre
2. This shortfall can be off-set by maximising the capacity at Ram Meadow through transferring usage from Cattle-market and Parkway car parks. If this is done successfully, a further 80 spaces will be required by 2035
3. If no action is taken to displace cars to Ram Meadow, the deficiency in car parking spaces will rise to 500 by 2035.
4. More car parking is needed in the vicinity of Churchgate/ Shire Hall area.
5. A minimum of three pay on exit car parks would be needed to be cost effective and an appropriate tariff structure that charges more for longer staying cars to manage turnover of car parking acts/capacity in these car parks. The consultants have looked at highways issues and feel the car parks could provide adequate queueing lane off-street.

The report recommends a number of measures to influence change:

1. Transfer long stay car parking on Saturday to Ram Meadow by reviewing stay restrictions on Parkway MSCP (no all-day parking)
2. Increased tariffs for longer stay parking i.e. 3 and 4hrs across all car parks
3. Tariffs on Parkway MSCP should higher to encourage better use of capacity in the town during the week
4. Promotion of other travel modes
5. Incentives such as cheaper tariffs if you arrive outside peak times
Residents Parking

There are twelve resident’s parking schemes around the town centre, these are continually reviewed and extended as the impacts of the schemes are understood. It is anticipated that further schemes will be implemented.
12 THE WAY FORWARD

This report provides information of ongoing work related to the transport strategy for Bury St Edmunds identified in the Local Transport Plan 2011-2031, this is considered a working document to be updated as different work streams are completed and new ones identified. The growth plan for the town extends to 2031 and this determines the period over which detailed improvements will be developed and implemented, subject to funding.

The current schemes currently being delivered by Suffolk County Council include:

- Delivery of the Eastern Relief Road
- Tollgate Lane scheme development
- Compiegne Way / Tayfen Rd / Out Northgate junction modelling and scheme design
- The introduction of Real Time Passenger Information
- Improved cycling facilities at the Rail Station
- Sustainable transport improvements 2016/17
- A review of the bus routing and infrastructure
- Securing town-wide improvements to junctions and sustainable transport provision.

However, to provide improvements that will extend for the growth period, some potentially difficult principles will have to be considered for example; removal of parking to accommodate gaps in the cycle network; limiting access on key town centre routes to provide bus priority; effective pricing in off-street car parks to discourage commuting by car. We will work with the county and borough councillors and officers to agree these.

There is no single approach that will deliver mitigation for either the current level of traffic or with future growth. It will be necessary to provide hard, infrastructure, and soft, smarter choices and pricing, measures.
APPENDICES

APPENDIX A  TRAVEL BEHAVIOUR – Internal movements
APPENDIX B  TRAVEL BEHAVIOUR – External movements into town
APPENDIX C  TRAVEL BEHAVIOUR – External movements out of town
APPENDIX D  JUNCTION LOCATION PLAN
APPENDIX E  BURY ST EDMUNDS CYCLE MAP
APPENDIX F  JUNCTION CLUSTER SITES
APPENDIX G  JUNCTION IMPROVEMENTS - North west Bury site
APPENDIX H  JUNCTION SUMMARY SHEETS