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1 Introduction

This Inter-Urban Route Strategy is a daughter document to Hertfordshire's third Local Transport Plan (LTP3) and is concerned with corridor improvements up to 2017.

1.1 Hertfordshire

Hertfordshire is located in the South East of England, immediately to the north of London and its boroughs and adjoining the counties of Buckinghamshire, Essex and Cambridgeshire, Central Bedfordshire Council and Luton Borough Council.

Hertfordshire lies within easy reach of some of the country's major strategic transport routes, facilitating good access to the rest of the country and further afield via the two major civil airports immediately to the east and to the west of the county - London Stansted, near Bishop's Stortford, and London Luton, north of Harpenden. Heathrow and Gatwick are also easily accessed via the M25 and rail connections from the county. These facilities add to traffic and rail demands in the county and impact directly on Hertfordshire's transport network.

The settlement pattern of the county, with widespread small and medium sized towns and no major centre, creates a complicated pattern of movement which has been increasingly met by use of the car, leading to localised congestion and increased journey times particularly during the peak periods.

Pressures of growth and population growth mean increasing levels of traffic are forecast which will add to the existing shortage of capacity during peak times. The major road and rail routes run north-south with particular issues in the peak hours, while east-west movement can be difficult, particularly by passenger transport. In addition two major civil airports operate immediately to the east and to the west of the county - London Stansted, near Bishop's Stortford, and London Luton, north of Harpenden.

Despite the high levels of car use and high car ownership there remains a significant minority without access to a car that can find it difficult to access other modes of transport and therefore key services, including employment opportunities.

1.2 Structure of this Report

This report is structured as follows:

- Section 2 outlines the background to this Inter-Urban Route Strategy and the methodology employed.
- Section 3 reports on the consultation undertaken in Autumn 2012.
- Sections 4 to 11 are focussed on the eight corridors, the transport measures proposed in them and an assessment of the measures against the five Local Transport Plan 3 goals.
- Section 12 notes the measures from this Strategy that are candidate major transport schemes to be considered by Hertfordshire's new Local Transport Body.

- Section 13 concludes this report.

The Stage 2 Technical Document that went to consultation forms an appendix to this report.

2 Background and Methodology

2.1 Background

Hertfordshire County Council in its role as local transport authority is responsible for producing spatial transport strategies. These include a suite of daughter documents to LTP3 that includes Urban Transport Plans. These set out a framework to focus transport improvements and investment within specific urban areas for the next 20 years by seeking to provide possible interventions to deal with existing issues and developing longer term spatial strategies to help address potential problems associated with likely growth and development.

Through the preparation of the Urban Transport Plans there is already a good understanding of transport issues and development pressures within the County's urban areas and the necessary investment required to overcome these. However, these are constrained to the geographical boundaries of particular settlements, or groups of settlements, and do not consider cross-boundary impacts or the cumulative pressures on the strategic transport network that runs between Hertfordshire's towns and areas of major population. As a daughter document to the Local Transport Plan 3, this Inter-Urban Route Strategy seeks to address that deficit and provides a strategy for a series of key corridors linking the urban centres within the County and across the borders to neighbouring authorities.

The key objectives of this Strategy were outlined as:

- to determine the function of each route - its characteristics, capacity, delays and adequacy / potential to accommodate growth;
- to consider and prioritise time-frames for interventions within routes;
- to provide a strategy for each route and a county-wide strategy (responding to planned development in the next five years);
- to provide material consideration at a point in time, setting out the transport issues with known developments;
- to identify potential contenders for Major Projects; and
- to set out options for consultation to gain public endorsement of the schemes that would be required to accommodate growth.

In the long term, the County Council intends the Inter-Urban Route Strategy (IURS) to inform the basis of infrastructure investment within the County's strategic corridors up to 2031 and beyond. However, in the light of recent changes to the planning system, a lack of clear understanding of the location and size of development throughout the county and its borders at this point in time, and on-going challenges associated with the funding of transport projects, the County Council has decided to produce the strategy to cover the period up to 2017, providing a snapshot of the level of growth expected to come forward and the potential transport infrastructure that will be required to help support this level of development. This approach enables the County to pro-actively engage with current infrastructure planning processes and to capitalise upon both existing and emerging funding opportunities. The IURS is a 'live' document and the County Council is committed to reviewing this strategy once there is more certainty around the future of growth in Hertfordshire, which will enable the IURS to

function effectively as a daughter document to the Local Transport Plan up to 2031.

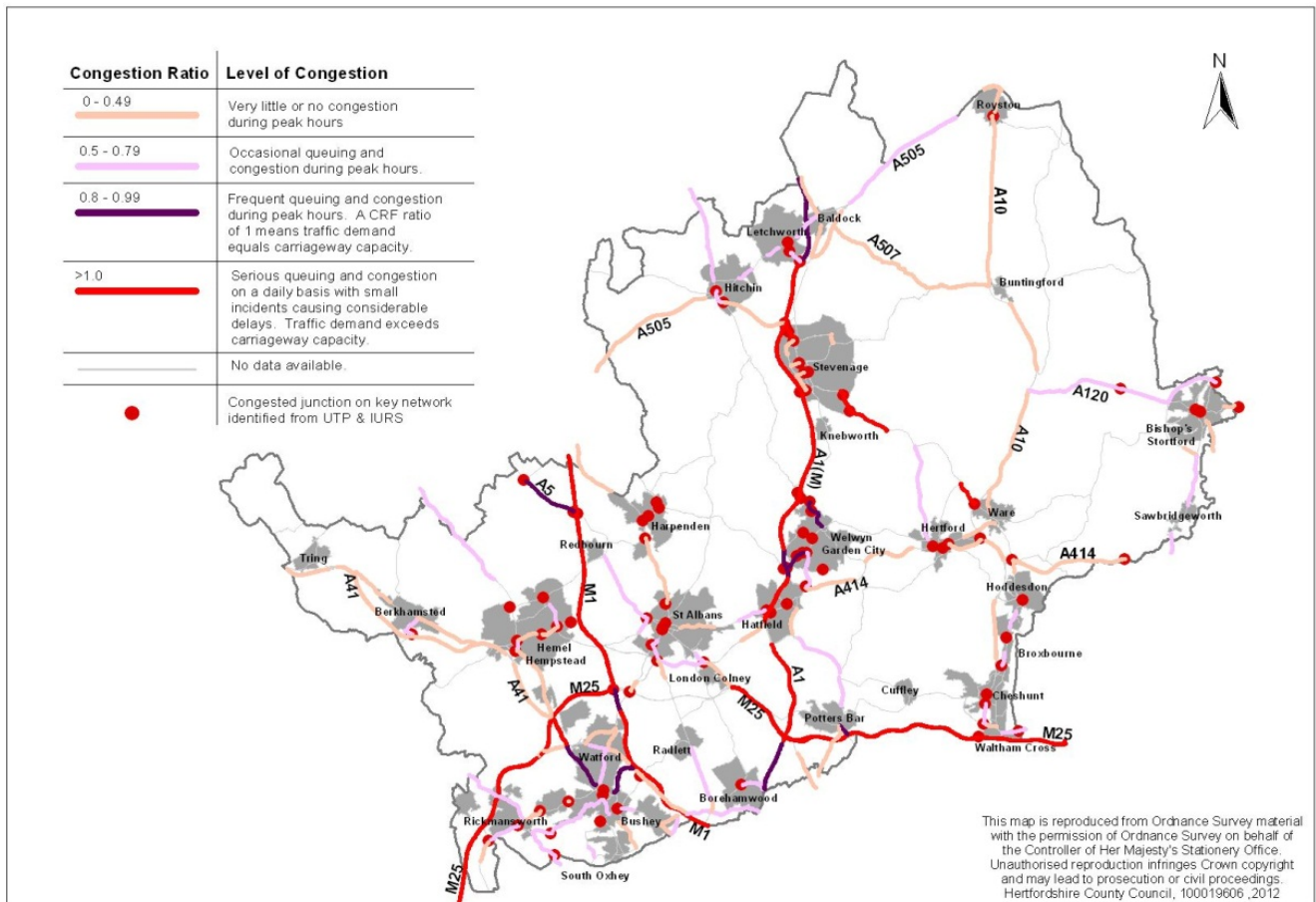
The IURS has been developed in three key stages:

- Stage 1: Issues Mapping. Data gathering on current and predicted transport issues.
- Stage 2: Technical Document. Consideration of these issues and the five year housing and economic developments and associated transport impacts on the network to develop long lists of potential options.
- Stage 3: Consideration of the public consultation feedback and the prioritisation of schemes into the **Inter-Urban Route Strategy** – this current report.

A Technical Study, containing the outputs of the Stage 1 and Stage 2 work, was produced in September 2012. This was used to engage wider stakeholders, local Members and Hertfordshire residents on the types of schemes that are likely to be required to address existing transport issues and to help unlock growth within the County. That Technical Study, along with the outputs from consultation and prioritisation of schemes, has formed the basis of developing the Inter Urban Route Strategy to 2017 and should be read in conjunction with the sections that follow. The Technical Study can be viewed on the same web page as this document.

The County 2011 current year Stress Map (overleaf) shows countywide indicators of congestion that informed the identification of both individual interventions and wider interventions to address the congestion. The stress map shows link based Congestion Reference Flow ratios for the main road network in Hertfordshire as well as key junction congestion identified from recent Urban Transport Plans and the Stage 1 issues gathering as part of the Inter-Urban Route Study.

Congested junctions are highlighted using anecdotal data sourced from council officer and local Member evidence, along with issues identified in the Urban Transport Plans. The plan highlights these congested junctions and shows that they tend to occur in most of Hertfordshire's towns and where major routes join.



In developing the Strategy, a set of inter-urban corridors has been defined to capture the main inter-urban transport network connecting the urban centres in Hertfordshire and across its borders. Corridors were selected to capture:

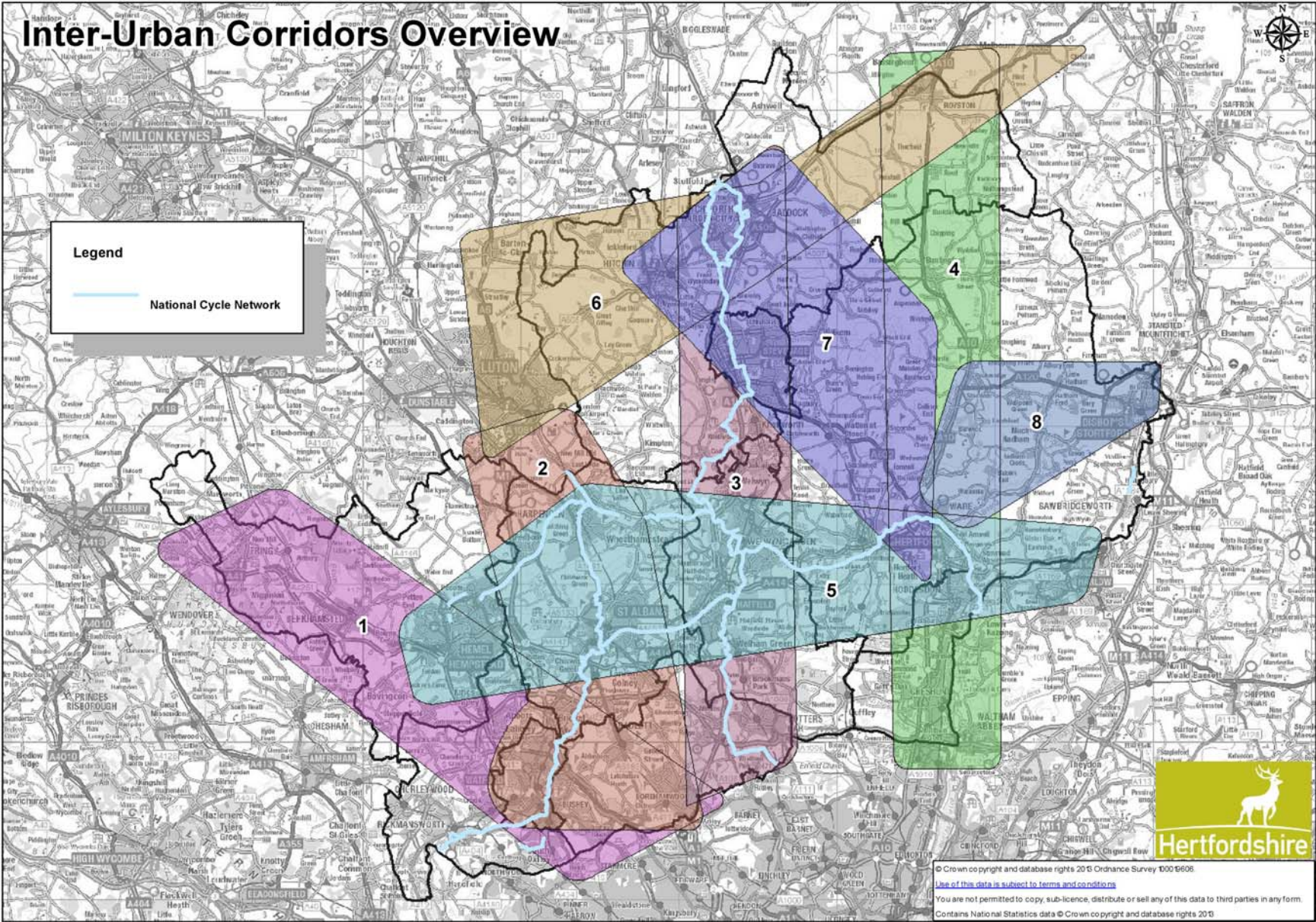
- all main routes between the main towns (those with Urban Transport Plans) and other centres of major population - A and B roads with parallel motorways, railways and other sustainable transport networks (such as cycle routes) where relevant within the corridor;
- parallel routes e.g. Hatfield - St Albans A414 and A1057, A1184 and West Anglia railway; and
- where known rat-runs provide alternatives to the main routes e.g. B1004 and A120/A10.

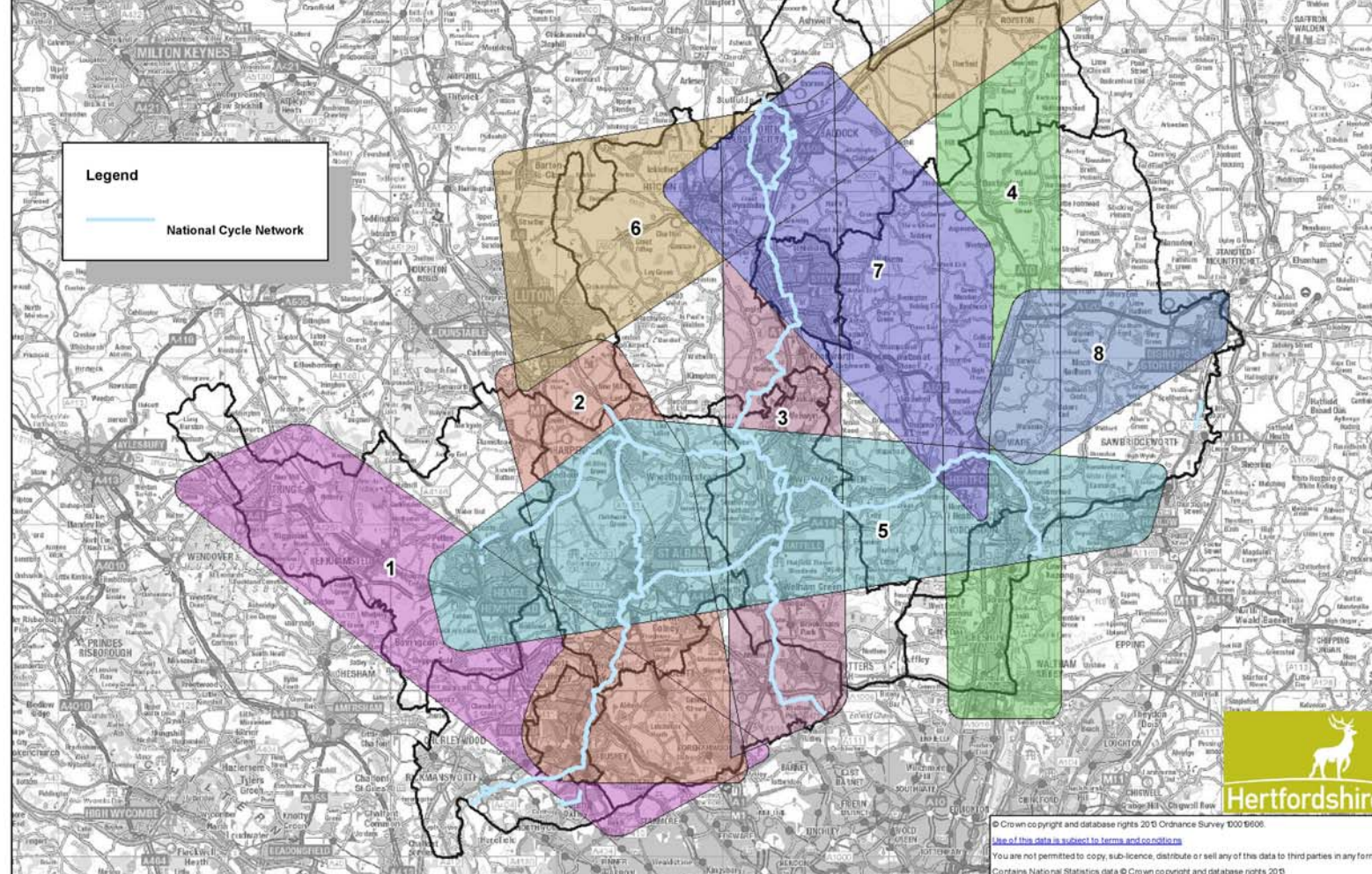
2.2 The Corridors

The eight corridors are shown on the plan as follows:

1. North London to Tring
2. Watford to St. Albans to Luton
3. Potters Bar to Letchworth Garden City
4. Waltham Cross to Royston
5. Hemel Hempstead to Harlow

6. Luton to Royston
7. Letchworth Garden City to Ware
8. Standon to Bishop's Stortford





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All rail corridors were also considered as well as the National Cycle Route (NCN) where applicable.

The Inter Urban Route Strategy only covers 'local town hot spots' if it is deemed that a strategic solution is required to encourage inter-urban connectivity or resolve traffic congestion in a town on part of a strategic route.

Through engagement with local district, borough and county officers, the Hertfordshire Constabulary, Network Rail, the Highways Agency, neighbouring authorities and other key stakeholders, a set of corridor by corridor issues and potential mitigation measures was collated and validated via Hertfordshire County Council's existing datasets of transport indicators. A workshop was held which presented these issues alongside the expected five year growth and this enabled a range of mitigation interventions to be identified. Further strategic interventions were sourced through review of Hertfordshire County Council's existing strategies contained in the Local Transport Plan 3, the Urban Transport Plans (for strategic solutions) and Hertfordshire County Council Infrastructure Delivery Plans.

An appraisal framework, based on the Department for Transport's Early Assessment and Sifting Tool was then developed to assess all possible schemes against the County's existing objectives. A series of corridor by corridor options was then identified for the shorter term (within 10 years) and longer term (10 years plus) that responded to the existing issues on the transport network, local housing trajectories and planned commercial development.

Given the scale of issues identified, the range of transport networks affected and the level of investment required to address them, the County Council will not be able to deliver all necessary interventions. In many instances, there is a need to work with other stakeholders to secure the most effective solution wherever possible. To highlight the scale of investment needed within the County's strategic transport corridors, and to assist in identifying the areas where the County Council will need to engage with wider stakeholders, all schemes were included within the corridor options.

Each corridor contains a range of potential interventions to address the identified issues. Many schemes are issue specific, while many issues have no directly applicable intervention, but rely on broader, county-wide demand management policies and the promotion of sustainable transport options to address them. A set of potential solutions was drawn up at county and corridor level.

It should be noted that the interventions identified in the Strategy are at an early stage of consideration and require further feasibility work to be carried out before more detailed consideration and further public consultation would be undertaken prior to a decision be made in respect to delivery.

County-wide options included:

- extending travel planning, including station, school and personalised travel planning – this has been successful in the past in towns such as Watford;
- public transport orientated development - channelling development to key passenger transport corridors;
- co-ordinated county-wide parking strategy - working with the districts and boroughs;

- county-wide promotion of flexible and tele-working;
- extending SMART ticketing across the County;
- continuing the deployment of Integrated Transport Systems (ITS) roll-out - targeted urban traffic management and real time passenger information at key bus stops on busy routes and interchange locations;
- extending bus operating hours by working with bus operators to review market needs;
- the roll-out of quality network partnerships;
- supporting a county-wide roll-out of super-fast broadband via the existing 'supafastforherts' scheme;
- supporting a county-wide network of express bus services;
- supporting a county-wide network of transport hubs (including strategic park and ride); and
- supporting county-wide targeted improvements to improve access to key rail stations.

The individual corridor options included more specific interventions that related to particular roads, junctions or other transport networks.

The Inter-Urban Route Study Technical Document was subject to consultation (2 October to 30 November 2012) to seek key stakeholders, organisations and the public's views on the key issues facing Hertfordshire's inter-urban route network and the possible interventions to address these. Views were also sought on how the County Council could prioritise investment to help determine a future strategy for the County's inter-urban routes to 2017. The outcome of this consultation process is summarised in Section 3.

2.3 Methodology

The intention of this Strategy is to demonstrate the fit of schemes within individual corridors against the Local Transport Plan goals (using a red, amber, green assessment to indicate whether a goal is hindered, neutral or assisted (assisted or strongly assisted)). There is no intention to prioritise between corridors.

The LTP goals are set out below and are used in the tables in the sections that follow. To assist understanding of the tables in this report, a single word abbreviation is used to refer to the goals and this appears below in bold.

- Goal 1: Support economic development and planned dwelling growth - economy
- Goal 2: Improve transport opportunities for all and achieve behavioural change - choice
- Goal 3: Enhance the quality of life, health and the natural, built and historic environment of all Hertfordshire residents - QoL
- Goal 4: Improve the safety and security of residents - safety
- Goal 5: Reduce transport's contribution to greenhouse gas emissions and improve its resilience - carbon

The sections on each of the corridors also note (with an asterisk) any schemes that may be candidate major transport schemes for Local Transport Body funding, based on Hertfordshire's definition of a major transport scheme as follows:

A transport intervention

- *of strategic-level significance*
- *for which all constituent parts are intrinsically linked as part of one project*
- *with a total capital cost exceeding the threshold value requiring publication of a Contract Notice in the OJEU (currently £4,348,350)*

These candidate major transport schemes are summarised in Section 12.

3 Consultation

3.1 Introduction

As explained, the Technical Document was subject to consultation (2 October to 30 November 2012) to seek the public's views on the key issues facing Hertfordshire's inter-urban route network and the possible interventions to address these. Views were also sought on how the County Council could prioritise investment to help determine a future strategy for the County's inter-urban routes to 2017.

3.2 Responses

The public consultation on the Inter-Urban Route Study was well represented with over forty responses from a mixture of local authorities, interest groups and individual residents.

The key consultation points are summarised in the Table below.

Comment	Response
The lack of consideration given to the M25 and its parallel routes running across the south of the County.	This has not been addressed in the study as work to complete the widening and managed motorway section of the route by the Highways Agency is not yet complete and, as such, its impact on the County Council's network cannot be evaluated.
The inclusion of a number of Strategic Transport hubs including park and ride facilities was raised as an issue in terms of likely viability and likely cost.	The County Council recognises the contribution that well designed and sited transport hubs (interchanges) can have in maintaining sustainable access to, from and within towns where economic and housing growth is being considered. HCC will work closely with District Councils on developing transport strategies to support growth and is prepared to support or promote such transport hubs, if they are included in a District Council's local plan and/or supported by the neighbouring District (should the site(s) not be in the District of the town or towns it was aimed at serving).
Comments were received that sought to encourage more focus on sustainable transport options over those that provided new infrastructure.	The interventions have been assessed against the LTP3 objectives and as such those that make the best use of existing infrastructure and take a balanced approach to dealing with growth and the impact of congestion tend to be those that show a best fit with the LTP.

3.3 Consultation Conclusion

No significant issues were raised in response to the consultation on the Study and as such this final Strategy does not include any significant changes to the list of interventions included within it, although changes have been made to plans and descriptions to ensure a clear understanding of the geography of the corridors and the interventions included.

4 County-Wide Interventions

4.1 Introduction

The corridors in the chapters that follow each contain a range of potential interventions to address the identified issues. Many schemes are issue specific, while many issues have no directly applicable intervention, but rely on broader, county-wide demand management policies and the promotion of sustainable transport options to address them. A set of potential solutions was accordingly drawn up at county level and these are noted in the Table below.

4.2 Table of County-Wide Interventions (by mode)

Ref No.	Measure	LTP Goal				
		1	2	3	4	5
		Economy	Choice	QoFL	Safety	Carbon
Smart / Demand Management						
*	Extend personal travel planning	GG	GG	G	G	GG
	Public transport oriented development – channelling development to key passenger transport corridors. Link into residential travel plans to get pump priming	G	GG	A	A	GG
	Co-ordinated county-wide parking strategy	G	G	A	A	G
	County-wide promotion of flexible and tele-working	G	G	G	A	G
*	Extend SMART ticketing across the County	G	GG	A	A	G
	Continue deployment ITS roll-out. Targeted Urban Traffic Management and Real Time Passenger Information at key bus stops on busy routes and interchange locations - included in LTP3	G	GG	G	A	GG
*	Support county-wide roll-out of superfast broadband via existing “supafastforherts” scheme	GG	G	A	A	G
Rail						
*	Investigate county-wide access improvements to key rail stations	GG	GG	G	A	GG
Bus						
	Partnership working to promote extension of bus operating hours	G	GG	A	A	GG
*	Roll-out of Quality Network Partnerships	G	GG	G	A	GG
*	Investigate county-wide network of express bus services	GG	GG	G	A	GG
Transport Hubs						
*	Investigate county-wide network of transport hubs (see note below)	GG	GG	G	A	GG

Note: those measures marked with an asterisk (*) are candidate major transport schemes for Local Transport Body funding based on the total estimated capital cost (see Section 2.3)

Strategic Transport Hubs

These facilities would look to provide an integrated site that caters for more than one mode of travel.

This could include stations and how they are accessed by pedestrians, cycles, buses and cars or park and ride facilities that could also serve as commuter car share points or bike hire locations for access to the adjacent town via high quality cycle route, train or bus route provision.

The concept seeks to create opportunities for sustainable travel concepts to be supported in viable locations to serve key towns in the County and beyond where applicable.

5 Corridor 1: North London to Tring

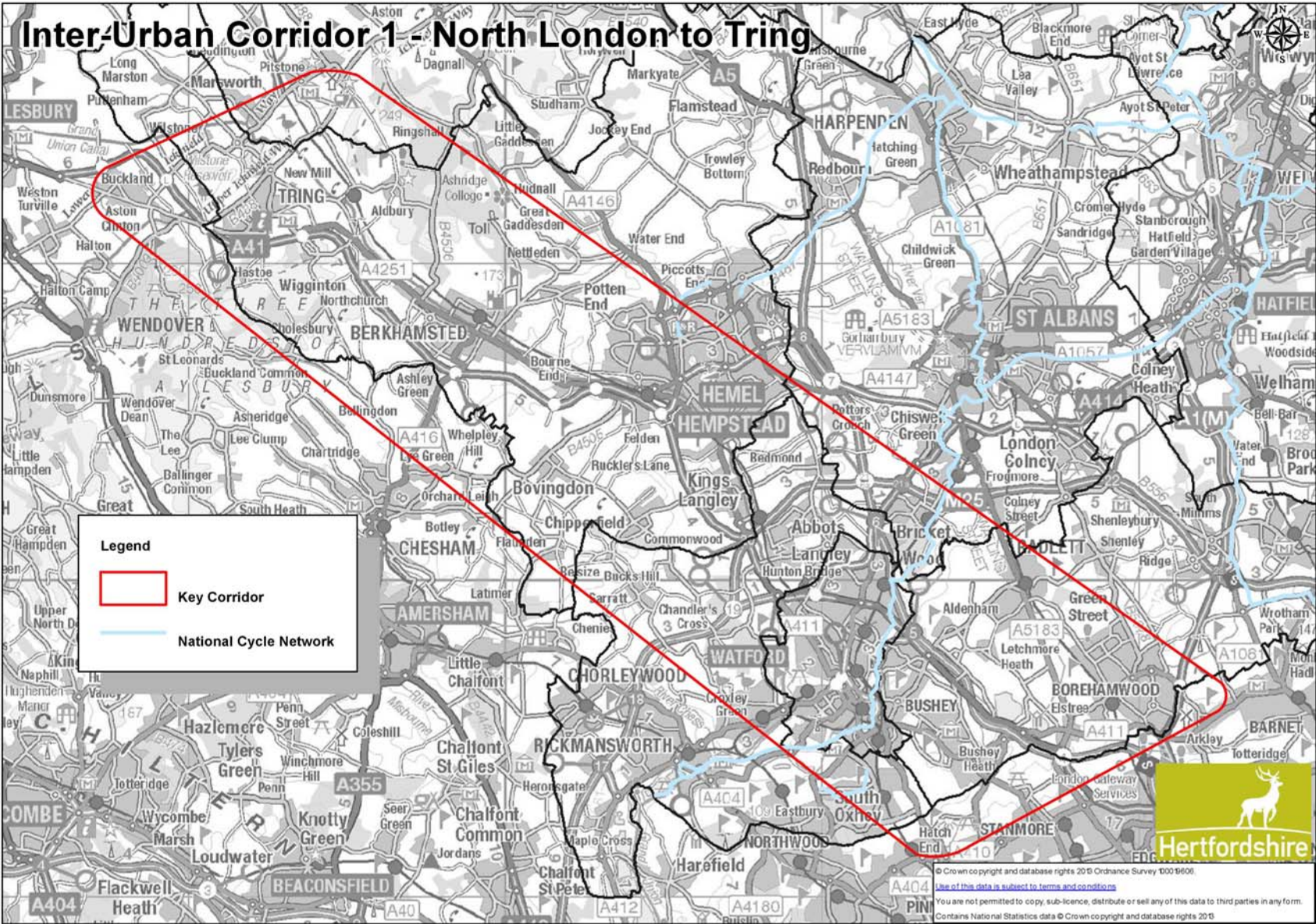
5.1 Introduction

Corridor 1 focuses on the A41 between North London and Tring. The A41 carries long distance through traffic and also provides a good inter-urban route between a number of settlements. The route bypasses Tring, Berkhamsted, Hemel Hempstead and Watford and then runs broadly parallel to the M1 to north London.

Corridor 1 also includes the West Coast Main Line and London Overground rail services into Euston.

In terms of development potential, while the western section of Corridor 1 has some capacity, many trips would focus on destinations further east, in particular Watford and London where the A41 suffers from congestion. Results from modelling suggest that additional development in Corridor 1 (at Berkhamsted, Hemel Hempstead and Watford) would add to these pressures. Longer term, all large scale developments will require consideration of significant levels of investment in transport infrastructure and ways to manage demand.

Corridor 1 North London to Tring is shown in the plan below.



5.2 Corridor 1: Table of Measures (by mode)

Ref No.	Measure	LTP Goal				
		1	2	3	4	5
		Economy	Choice	QoFL	Safety	Carbon
Highways						
1.1*	A4147 widening and junction improvements through Hemel Hempstead	GG	A	A	A	A
1.2	Optimise traffic flow and support sustainable travel modes at Bushey Arches junction (it should be noted that previous studies have indicated that within the existing constraints of the site very little can be done to significantly improve traffic flow and throughput.)	GG	A	A	A	A
Smart / Demand Management						
1.3	On-going delivery of ITS in Watford	GG	G	G	A	GG
1.4	Delivery of ITS Strategy in Hemel Hempstead	GG	G	G	A	G
Rail						
1.5*	Croxley Rail Link – extension of LUL from Croxley to Watford Junction	GG	GG	A	A	GG
Bus						
1.6	Road improvements to enable peak period bus priority on A41 between M25 J20 and Hunton Bridge Roundabout (A41/A411)	A	GG	A	A	GG
1.7*	Improve bus links between Abbots Langley / Leavesden Studios and Watford – new services or better utilise shuttle for employees	G	GG	A	A	G
Transport Hubs						
1.8*	Transport hub M25 J21 / A405	GG	GG	A	A	GG
Cycle						
1.9	Improve cycling links between Berkhamsted, Hemel Hempstead, Watford and Chorleywood	G	GG	G	A	G

Note: those measures marked with an asterisk (*) are candidate major transport schemes for Local Transport Body funding based on the total estimated capital cost (see Section 2.3)

5.3 Discussion of Corridor 1

There are nine measures in the North London to Tring Corridor and these cover a variety of modes. It can be seen from the Table that the smart/demand management and cycle measures contribute most to the LTP3 goals, with the development of a transport hub giving strong support to three of the goals.

6 Corridor 2: Watford - St. Albans - Luton

6.1 Introduction

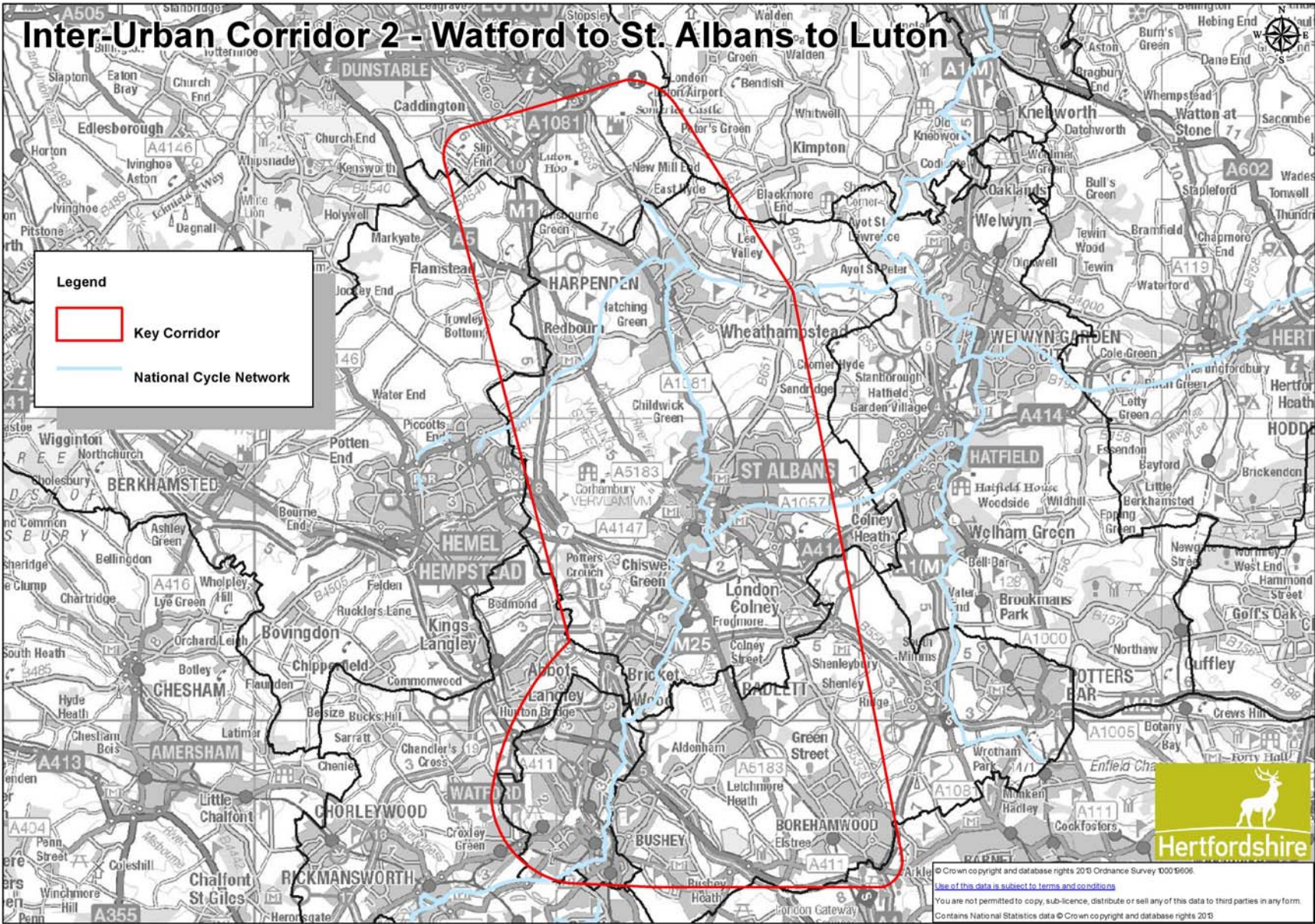
Corridor 2 focuses on the A405 between Watford and St Albans, and the A1081 from St Albans to Luton. These roads carry a mix of long distance and local traffic between Luton, St Albans and Watford.

The A1081 runs broadly parallel to the M1 and has historically taken some overspill traffic when the M1 becomes heavily congested. Works have recently been completed on the M1 to improve capacity and resilience. To the south the A1081 runs through St Albans and the city centre.

Corridor 2 includes the Midland Main Line to London St Pancras. It is a crowded rail corridor with London being the main focus for commuting trips. In addition St Albans and Watford are served by the Abbey Line train service. LTP3 includes the County Councils aspiration to increase the frequency of services on the line to encourage higher levels of use.

In terms of development potential, while the northern section has some capacity, the southern section through St Albans and further south is more congested. Housing development at St Albans and Elstree and Borehamwood will add to network stress. Luton Airport is a key attractor and any changes to the Airport and other changes in the area are likely to have a direct impact on this corridor, as well as on local roads such as the Lower Luton Road. Longer term, all large scale developments will require consideration of significant levels of investment in transport infrastructure and ways to manage demand.

Corridor 2 is shown in the plan below.



6.2 Corridor 2: Table of Measures (by mode)

Ref No.	Measure	LTP Goal				
		1	2	3	4	5
		Economy	Choice	QofL	Safety	Carbon
Highways						
2.1	Harpenden Town Strategic Traffic Signing Strategy to discourage through traffic from using B652 and B653	A	A	G	A	A
2.2	Signalise and re-phase existing signals to improve local traffic flow on the route around St Albans city centre	G	A	A	A	G
Smart / Demand Management						
2.3	Re-sign Luton from A414 and St Albans from Luton via M1 to reduce congestion on the A1081 through St Albans and Harpenden	A	A	G	G	G
Rail						
2.4*	Further bus priority along Hatfield Road A1057 between Hatfield, St Albans City Station and St Albans Abbey Station	G	GG	A	A	G
2.5*	Abbey Line rail frequency enhancement (St Albans to/from Watford) - included in LTP3	GG	GG	G	G	GG
Bus						
2.6	Improve promotion of existing inter-urban bus routes between Luton, Harpenden and St Albans. Marketing via existing Intalink partnership	A	G	A	A	G
2.7*	Continued work and co operation through St Albans Quality Network Partnership	G	GG	G	A	GG
Transport Hubs						
2.8*	Transport hub at junction of M1 Junction 10A / A1081	G	GG	A	A	GG
2.9*	Maylands Business transport hub serving the business park, Hemel Hempstead town centre and St Albans city centre and stations in both towns.	GG	GG	A	A	GG
Cycle						
2.10	Improve cycling links between Luton, St Albans and Borehamwood	G	GG	GG	A	G
2.11	Improve cycling links between Harpenden and Luton along NCN6	G	GG	GG	A	G
2.12	Complete missing links on NCN61 Alban Way to St Albans Abbey Station/ A5183	G	GG	GG	A	G
2.13	Promote the NCN57 Nickey Line between Harpenden and Hemel Hempstead	G	G	G	A	G
Walk / Cycle						
2.14*	Possible provision of a cycling facilities along busways, and the Abbey Line between St Albans and Watford subject to land availability and engineering feasibility.	G	GG	GG	A	GG

Note: those measures marked with an asterisk (*) are candidate major transport schemes for Local Transport Body funding based on the total estimated capital cost (see Section 2.3)

6.3 Discussion of Corridor 2

There are fourteen measures in the Watford to St Albans Corridor and these cover a variety of modes. It can be seen from the Table that cycling and walk/cycle measures contribute most to the LTP goals, with transport hubs giving strong support to some of the goals.

7 Corridor 3: Potters Bar to Letchworth Garden City

7.1 Introduction

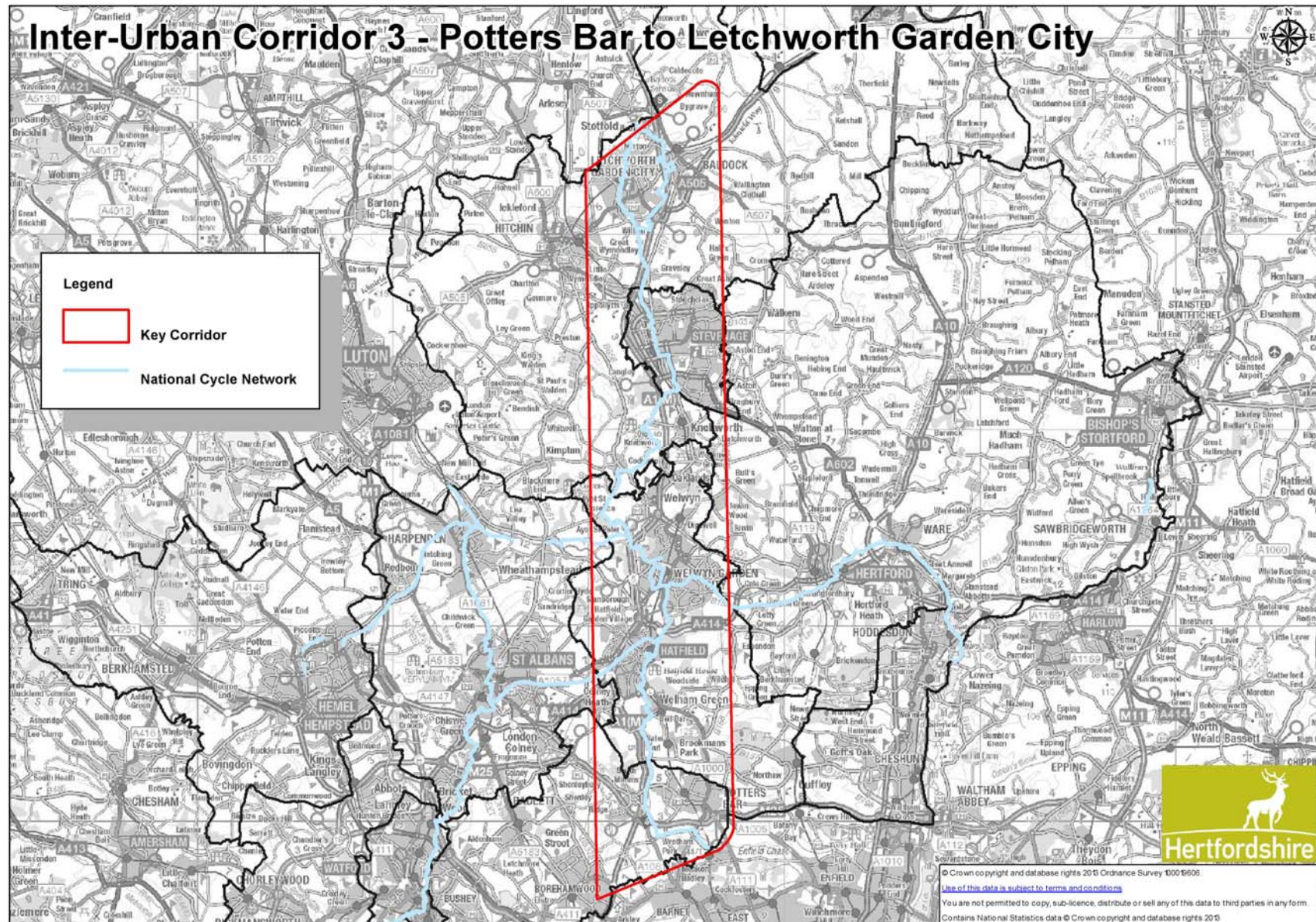
Corridor 3 is dominated by the A1(M) linking London with The Midlands and the north of England. The A1(M) carries a mix of local and longer distance strategic traffic between Letchworth, Baldock, Stevenage, Welwyn Garden City and Hatfield

Between Welwyn Garden City and north London the A1000 runs parallel to the A1(M) and provides more localised connectivity.

Corridor 3 also includes the East Coast Main Line which provides rail services to London King's Cross via a number of Hertfordshire stations.

Existing trip patterns are dominated by commuting to London and between the major settlements. Housing development at Hitchin, Stevenage, Hatfield and Welwyn Garden City will place additional pressure on links which are already currently congested. Longer term, all large scale developments will require consideration of significant levels of investment in transport infrastructure and ways to manage demand.

Corridor 3 is shown in the plan below.



7.2 Corridor 3: Table of Measures (by mode)

Ref No.	Measure	LTP Goal				
		1	2	3	4	5
		Economy	Choice	QoFL	Safety	Carbon
Highways						
3.1	Continue lobbying for A1(M) widening two-lane section to J7	GG	A	A	A	G
3.2	Signalise junction (existing roundabout) Hatfield Garden Village A1001 / B197	G	A	A	A	A
3.3	A1(M) J4 Tesco Roundabout review.	G	A	A	A	A
3.4	A1000 Great North Road / A1001 South Way Road, Hatfield – create all-movement junction	G	A	G	A	A
Smart / Demand Management						
3.5*	Variable speed limits on A1(M) to smooth traffic flow and improve journey time reliability	G	A	A	A	G
Rail						
3.6	Hitchin Curve (in progress)	GG	G	A	A	GG
3.7	Support East Coast Main Line upgrade, including the introduction of ERTMS post-2014	GG	G	A	A	GG
Transport Hubs						
3.8*	Stevenage North transport hub (B197, off A1(M) J8)	G	GG	A	A	GG
Cycle						
3.9	Develop sustainable transport corridor – Welwyn, Woolmer Green, Knebworth. Improve cycle links and link into Stevenage cycle network.	G	GG	GG	A	GG
3.10	Provide off-carriageway cycle route between Hitchin and Stevenage	G	GG	GG	A	G

Note: those measures marked with an asterisk (*) are candidate major transport schemes for Local Transport Body funding based on the total estimated capital cost (see Section 2.3)

7.3 Discussion of Corridor 3

There are ten measures in the Potters Bar to Letchworth Garden City Corridor and these cover a variety of modes. It can be seen from the Table that the cycling measures contribute most to the LTP goals, with the rail and transport hub measures giving strong support to some of the goals.

8 Corridor 4: Waltham Cross to Royston

8.1 Introduction

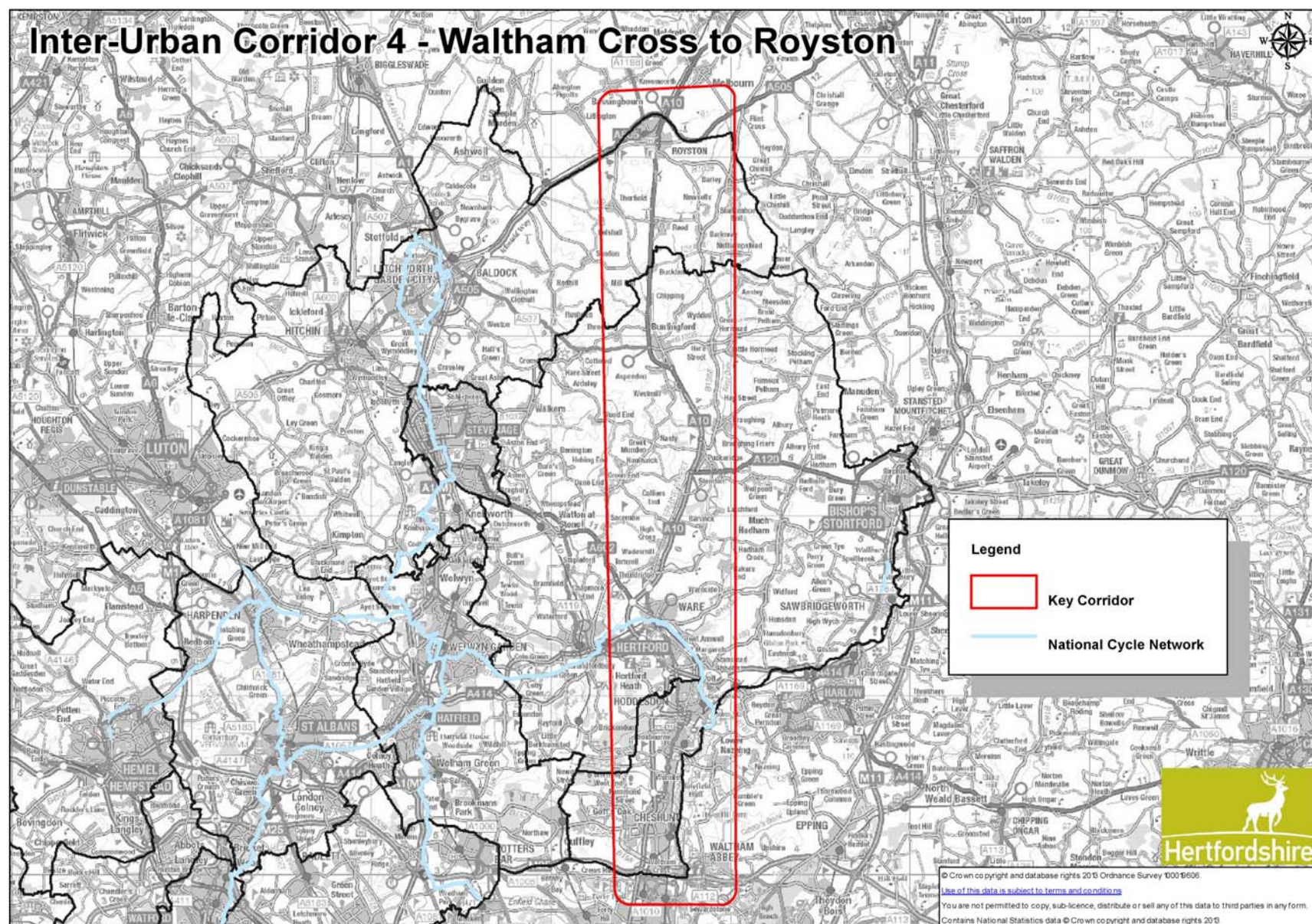
Corridor 4 is focussed on the A10 which links Waltham Cross, Broxbourne, Ware, Buntingford and Royston and provides longer distance links to London and Cambridge. The A10 carries a mix of local traffic between settlements and longer distance traffic. The A10 links to the A120, providing connections to Bishop's Stortford and Stansted Airport.

While the corridor has a regular bus service on urban roads, there are no bus services on the A10 itself.

Corridor 4 also includes services via the West Anglia Main Line into London Liverpool Street which is a popular commuting route.

Much work has been done to look at pressures from development in Broxbourne and a number of proposals has been considered. All large scale developments will require consideration of significant levels of investment in transport infrastructure and ways to manage demand.

Corridor 4 is shown in the plan below.



8.2 Corridor 4: Table of Measures (by mode)

Ref No.	Measure	LTP Goal				
		1	2	3	4	5
		Economy	Choice	QoFL	Safety	Carbon
Highways						
4.1	Signalise Amwell Roundabout	G	A	A	A	A
4.2*	Widening of the M25 eastbound and westbound off-slip and gyratory to provide a dedicated filter lane to the A10	G	A	A	A	G
4.3	A10 / A121 / B198 Roundabout. Full signalisation, with three circulatory lanes, three southbound approach lanes and a dedicated eastbound to westbound left turn lane	G	A	A	A	A
Bus						
4.4	Lobby for improved bus services Royston to Cambridge	G	G	A	A	G
4.5*	Further improve bus services linking the Lea Valley towns	G	GG	G	A	GG
4.6*	Review bus priority along corridor	G	G	G	A	GG
Cycle						
4.7	Cambridge – Royston – Broxbourne – Cheshunt cycle links	G	GG	GG	A	G
Walk / Cycle						
4.8	Promote towpaths – River Lea / New River	G	GG	GG	A	G

Note: those measures marked with an asterisk (*) are candidate major transport schemes for Local Transport Body funding based on the total estimated capital cost (see Section 2.3)

8.3 Discussion of Corridor 4

There are eight measures in the Waltham Cross to Royston Corridor. It can be seen from the Table that the bus, cycling and walk/cycle measures contribute most to the LTP3 goals.

9 Corridor 5: Hemel Hempstead to Harlow

9.1 Introduction

Corridor 5 focuses on the A414 which links Hemel Hempstead and Harlow, cutting east-west across the County. Running parallel to the M25, the A414 not only provides for local and through traffic, but also for diverting traffic from the M25.

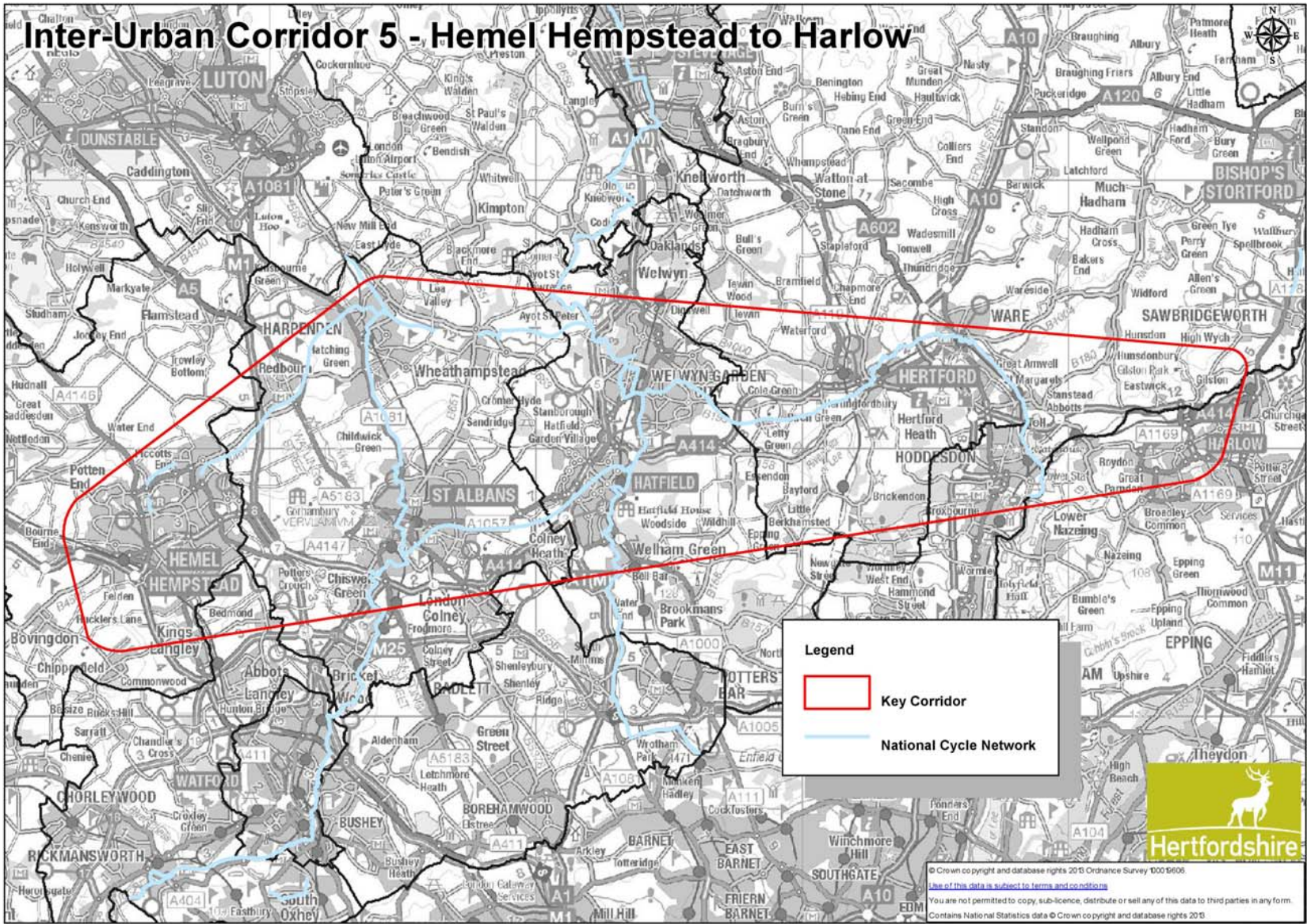
On the approach to the M1, Maylands Business Park is a key destination/trip generator.

There are high levels of car commuting trips in Corridor 5. There are no parallel rail routes but there are some inter-urban bus routes. However these suffer from congestion at a number of key locations.

The A4147/B487 (Redbourn Road/Hemel Hempstead Road) is also a key route from Hemel Hempstead to St Albans. The A4146 from Hemel Hempstead to Leighton Buzzard is a cross-authority route with links to south and central Bedfordshire (and Luton Airport) and Milton Keynes.

Developments in Corridor 5 may not place significant additional pressure on longer distance east-west movements due to the attraction of London for commuting. However, as it bisects the north-south corridors it will be subject to their respective constraints. Long term, all large scale developments will require consideration of significant levels of investment in transport infrastructure and ways to manage demand.

Corridor 5 is shown in the plan below.



9.2 Corridor 5: Table of Measures (by mode)

Ref No.	Measure	LTP Goal				
		1	2	3	4	5
		Economy	Choice	QoFL	Safety	Carbon
Highways						
5.1	Hertford SCOOT – signalise and link roundabouts on A414 Hertford section	G	A	A	A	G
5.2*	A414 Gascoyne Way, Hertford junction improvements	G	A	A	A	G
5.3	Jack Oldings Roundabout dedicated lanes (left) – A1001 northbound southbound A1 and A6129 southbound to A414	G	A	R	A	A
5.4	A119 Ware Road, Hertford junction improvements	G	A	A	A	G
Bus						
5.5*	Promote Hertfordshire Better Bus – a new bus service between Watford and Stansted Airport	G	G	A	A	G
Transport Hubs						
5.6*	Stanborough – use to expand transport hub	G	GG	A	A	G
5.7*	Hertford / Ware transport hub	G	GG	A	A	GG
Cycle						
5.8	Parallel cycle link A4147/A414 (old M10) Hemel Hempstead – St Albans	G	GG	G	A	G
5.9*	Parallel cycle route along A414 Hemel Hempstead – Hatfield (missing sections)	G	GG	GG	A	G
5.10	The Ayot Greenway Links Welwyn Garden City with Wheathampstead and Harpenden (missing sections)	G	GG	GG	A	G

Note: those measures marked with an asterisk (*) are candidate major transport schemes for Local Transport Body funding based on the total estimated capital cost (see Section 2.3)

9.3 Discussion of Corridor 5

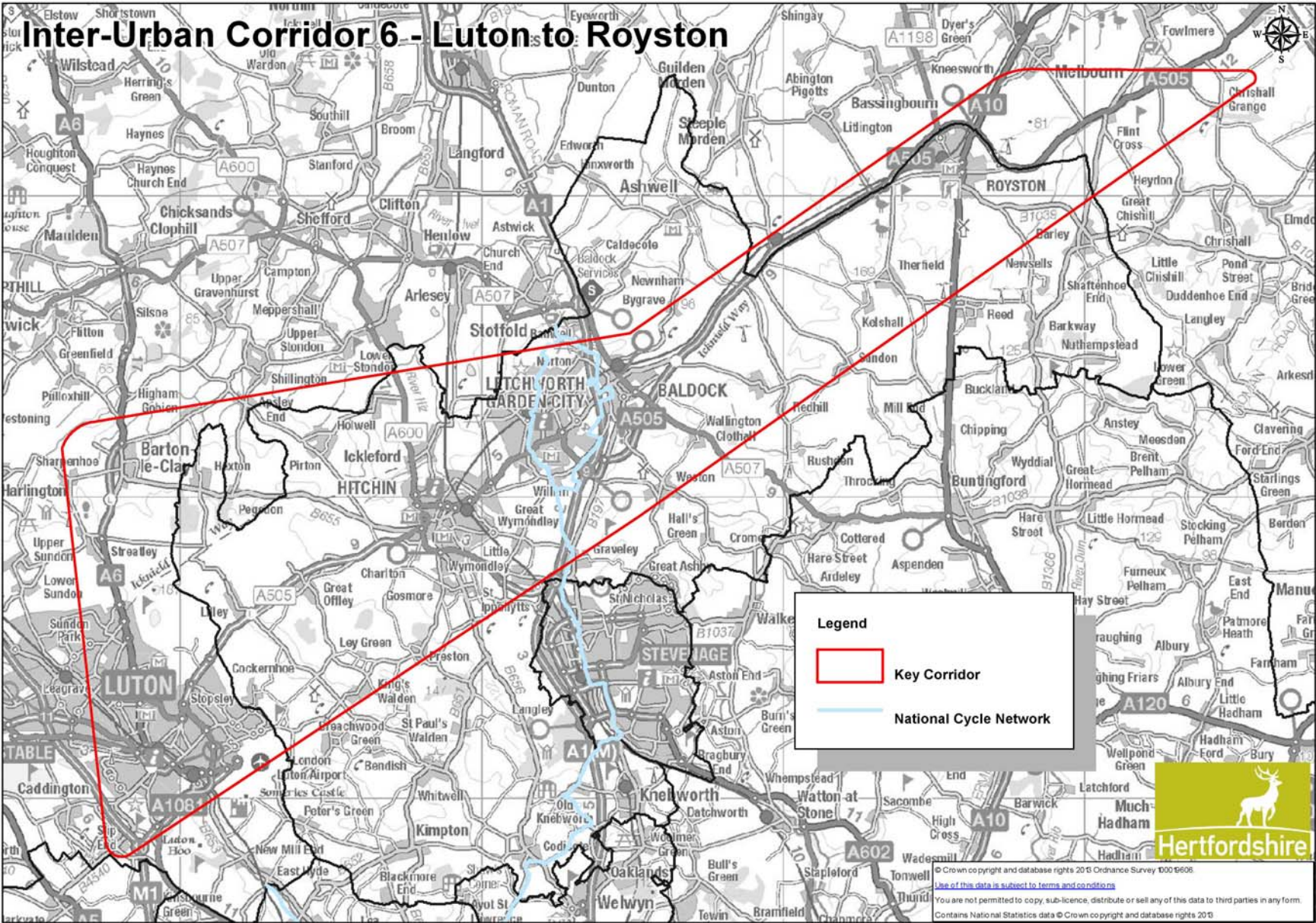
There are ten measures in the Hemel Hempstead to Harlow Corridor and these cover a variety of modes. It can be seen from the Table that the cycling measures contribute most significantly to the LTP goals.

10 Corridor 6: Luton to Royston

10.1 Introduction

The Corridor focuses on the A505 from Luton to Royston which carries a mix of local traffic and longer distance traffic between the A10 and A1(M). The A505 is relatively congestion-free along much of its length although it is subject to some morning peak period congestion in Hitchin and Letchworth. The A505 therefore has some capacity to accommodate east-west movements although development in Corridor 6 would be subject to the same constraints as the north-south corridors. Long term, all large scale developments will require consideration of significant levels of investment in transport infrastructure and ways to manage demand.

Corridor 6 is shown in the plan below.



10.2 Corridor 6: Table of Measures (by mode)

Ref No.	Measure	LTP Goal				
		1	2	3	4	5
		Economy	Choice	QoFL	Safety	Carbon
Bus						
6.1*	Bus priority between urban developments – Hitchin, Letchworth, Stevenage triangle	GG	GG	G	A	GG
Transport Hub						
6.2*	Improve interchange at Hitchin Station for rail and bus journeys, including provision of RTPI	complete				
Cycle						
6.3	Hitchin – Letchworth – Baldock cycle links	G	GG	G	A	GG
6.4	Upgrade cycle link between Hitchin and Royston	G	GG	G	A	G

Note: those measures marked with an asterisk (*) are candidate major transport schemes for Local Transport Body funding based on the total estimated capital cost (see Section 2.3)

10.3 Discussion of Corridor 6

There are four measures in the Luton to Royston Corridor and one of these is complete. Both the bus and cycle measures contribute quite strongly to the LTP3 goals.

11 Corridor 7: Letchworth Garden City to Ware

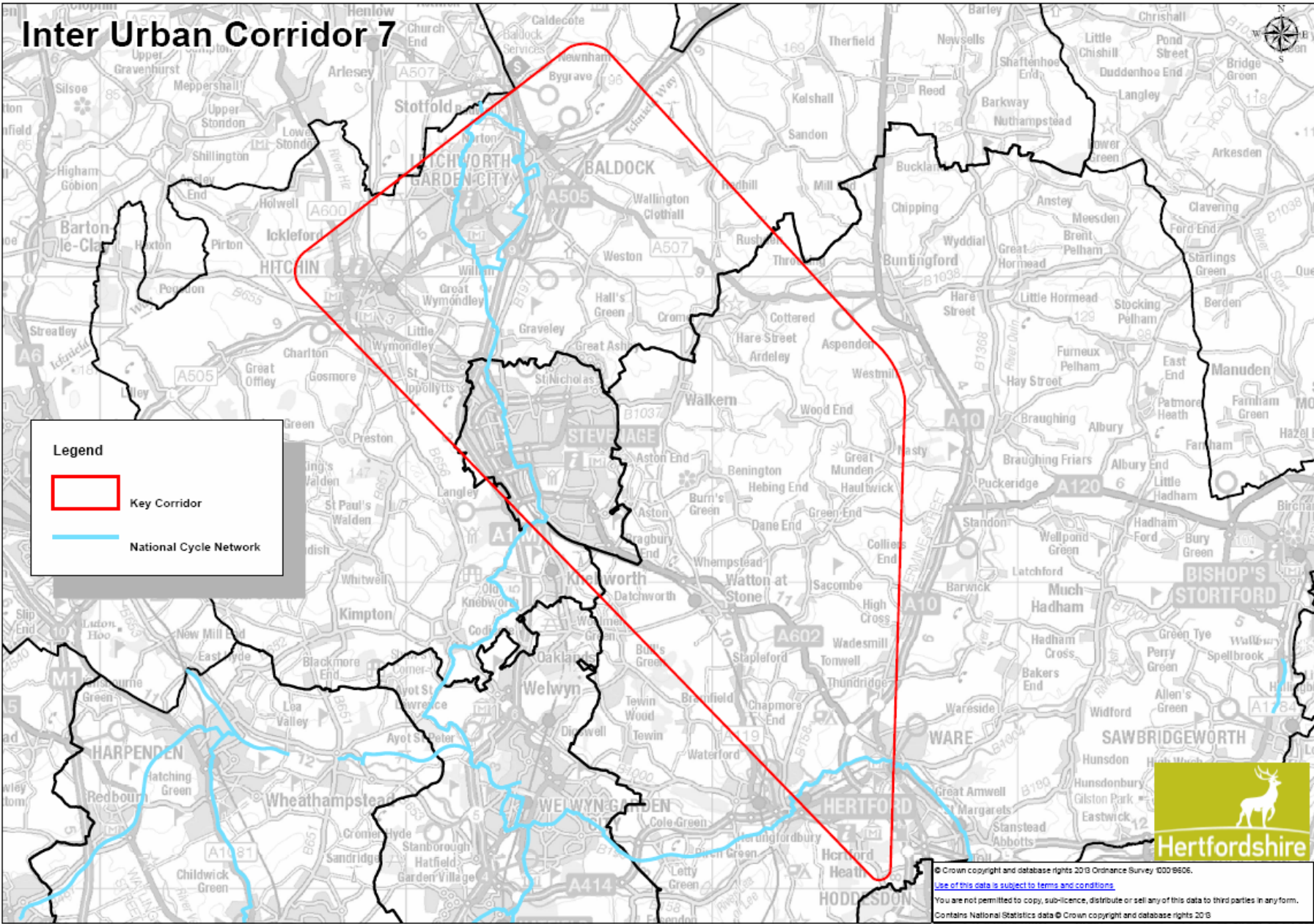
11.1 Introduction

Corridor 7 focuses on the A602 between Hertford and Stevenage, which carries a mix of local traffic and longer distance trips from the A1(M) and A10. Corridor 7 also includes the A507 from Baldock to Buntingford and the A119 from Watton-at-Stone to Hertford and from Hertford to Ware.

There is a high level of car commuting trips between Hitchin and Letchworth.

Development in Corridor 7 may not place significant additional pressure on longer distance east-west movement, however, the pull of London and employment areas to the north and south would draw commuters into the radial corridors with associated increases in pressure on the existing network stress points. Long term, all large scale developments will require consideration of significant levels of investment in transport infrastructure.

Corridor 7 is shown in the plan below.



11.2 Corridor 7: Table of Measures (by mode)

Ref No.	Measure	LTP Goal				
		1	2	3	4	5
		Economy	Choice	QoFL	Safety	Carbon
Highways						
7.1*	A602 corridor route improvement - included in LTP3	G	A	A	G	A
7.2	Re-sign through traffic (from or to Hertford) to bypass Stevenage town centre	G	A	G	A	A
7.3	Sign traffic from A1(M) for Stevenage town centre from J7, not J8 (for northbound traffic)	A	A	G	A	A
7.4	Junction improvements at A1(M) J8 to separate through traffic	GG	A	A	A	G

Note: those measures marked with an asterisk (*) are candidate major transport schemes for Local Transport Body funding based on the total estimated capital cost (see Section 2.3)

11.3 Discussion of Corridor 7

There are four measures in the Letchworth Garden City to Ware Corridor and they are all for highways schemes. Overall they give only limited support to the LTP3 goals.

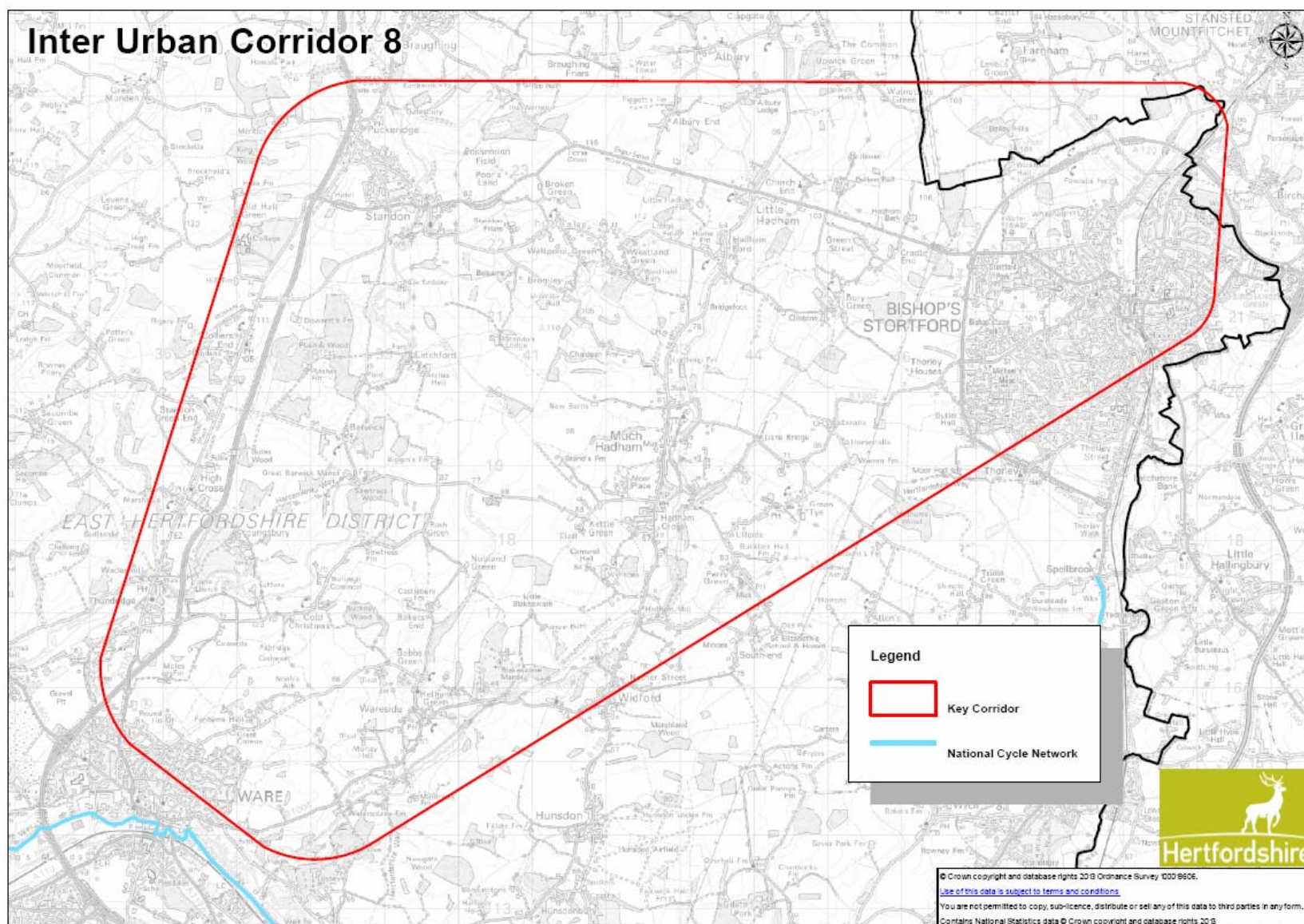
12 Corridor 8: Standon to Bishop's Stortford

12.1 Introduction

Corridor 8 focuses on the A120 which carries a mix of local and strategic traffic as it is the main link to Stansted Airport and the M11. It also carries east-west traffic to Stevenage. Much of the route is free-flowing although there is a significant bottleneck at Little Hadham. There are plans to address this through the Little Hadham Bypass which is a major project aspiration in LTP3.

As with the other orbital corridors, there is some capacity for additional development although the attraction of London and employment areas would draw commuters into the radial corridors with associated increases in pressure on existing network stress points. Long term, all large scale developments will require consideration of significant levels of investment in transport infrastructure and ways to manage demand.

Corridor 8 is shown in the plan below.



12.2 Corridor 8: Table of Measures (by mode)

Ref No.	Measure	LTP Goal				
		1	2	3	4	5
		Economy	Choice	QoL	Safety	Carbon
Highways						
8.1*	A120 Bishop’s Stortford bypass dualling	G	A	A	A	G
8.2*	A120 bypass (little Hadham) – included in LTP3	G	G	G	A	G
8.3*	A1184 Sawbridgeworth Road improvements	G	A	A	A	A
Coach						
8.4*	A120 coach link serving key origins and destinations along the corridor –	G	GG	A	A	G
Transport Hub						
8.5*	A120 transport hub	G	GG	A	A	GG

Note: those measures marked with an asterisk (*) are candidate major transport schemes for Local Transport Body funding based on the total estimated capital cost (see Section 2.3)

12.3 Discussion of Corridor 8

There are five measures in the Standon to Bishop's Stortford Corridor and the coach and transport hub measures give the strongest support to the LTP3 goals.

13 Candidate Major Transport Schemes

13.1 Introduction

The preceding sections on each of the corridors noted (with an asterisk) any schemes that may be candidate major transport schemes for Local Transport Body funding, based on Hertfordshire's definition of a major transport scheme as follows:

A transport intervention

- *of strategic-level significance*
- *for which all constituent parts are intrinsically linked as part of one project*
- *with a total capital cost exceeding the threshold value requiring publication of a Contract Notice in the OJEU (currently £4,348,350)*

These candidate schemes are summarised in this Section.

13.2 Summary of Candidate Major Transport Schemes

Corridor	Measure
Highways	
1	A4147 widening and junction improvements through Hemel Hempstead
4	Widening of the M25 eastbound and westbound off-slip and gyratory to provide a dedicated filter lane to the A10
5	A414 Gascoyne Way, Hertford junction improvements
7	A602 corridor route improvement
8	A120 Bishop's Stortford bypass dualling
8	A120 Bypass (Little Hadham)
8	A1184 Sawbridgeworth Road improvements
Smart / Demand Management	
CW	Extend personal travel planning
CW	Extend SMART ticketing across the County
CW	Support county-wide roll-out of superfast broadband via existing "supafastforherts" scheme
3	Variable speed limits on A1(M)
Rail	
CW	Investigate county-wide access improvements to key rail stations
1	Croxley Rail Link – extension of LUL from Croxley to Watford Junction
2	Abbey Line rail frequency enhancement (St Albans to/from Watford)

Corridor	Measure
Bus / Coach	
CW	Roll-out of Quality Network Partnerships
CW	Investigate county-wide network of express bus services
1	Improve bus links between Abbots Langley/Leavesden Studios and Watford – new services or better utilise shuttle for employees
2	Bus priority along Hatfield Road A1057 between Hatfield, St Albans City Station and St Albans Abbey Station
2	St Albans Quality Network Partnership
4	Improve bus services linking the Lea Valley towns
4	Review bus priority along corridor
5	Hertfordshire Better Bus – a new bus service between Watford and Stansted Airport
6	Bus priority between urban developments – Hitchin, Letchworth, Stevenage triangle
8	A120 coach link serving key origins and destinations along the corridor
Transport Hubs	
CW	Investigate county-wide network of transport hubs
1	Transport hub M25 J21 / A405
2	Maylands Business transport hub serving the business park, Hemel Hempstead town centre and St Albans city centre and stations in both towns.
2	Transport hub at junction of M1 Junction 10A / A1081
3	Stevenage North transport hub (B197, off A1(M) J8)
5	Stanborough – use to expand transport hub
5	Hertford / Ware transport hub
6	Improve interchange at Hitchin Station for rail and bus journeys, including provision of RTPI
8	A120 transport hub
Walk / Cycle	
2	Possible provision of a cycling facilities along busways, and the Abbey Line between St Albans and Watford subject to land availability and engineering feasibility
5	Parallel cycle route along A414 Hemel Hempstead – Hatfield

14 Conclusion

As a daughter document to the Local Transport Plan 3, this Inter-Urban Route Strategy provides a strategy for a series of key corridors linking the urban centres within the County and across the borders to neighbouring authorities.

The Strategy prioritises schemes within individual corridors against the five Local Transport Plan goals. There was not an intention to prioritise between corridors. The sections on each of the corridors also note any schemes that may be candidate major transport schemes for Local Transport Body funding.

In the long term, the County Council intends the Inter-Urban Route Strategy to form the basis of infrastructure investment within the County's strategic corridors up to 2031 and beyond. However, in light of recent changes to the planning system and on-going challenges associated with the funding of transport projects, the County Council decided to produce this Strategy to cover the period up to 2017, providing a snapshot of the level of growth expected to come forward and the potential transport infrastructure that will be required to support this level of development.

This approach enables the County to pro-actively engage with current infrastructure planning processes and to capitalise upon both existing and emerging funding processes. This is a 'live' document and the County Council is committed to reviewing it once there is more certainty around the future of growth in Hertfordshire, which will enable the Inter-Urban Route Strategy to function effectively as a daughter document to the Local Transport Plan up to 2031.

This Strategy will be used to bid for funding via a variety of sources, including: the Local Transport Body allocations for Major Scheme funding, developer funding (including Community Infrastructure Levy/Section 106 and other contributions), and other sources.