



# A120 BRAINTREE TO A12

## Consultation on Route Options

17 January – 14 March 2017



Essex County Council



# 1. FOREWORD

I am delighted to announce the start of the public consultation on five options for improving the A120 between Braintree and the A12.

For both motorists and communities, improvement to this part of the A120 has been a long time coming. The options to be considered will improve the safety on this stretch of road and improve the levels of congestion.

In its current form this stretch of road does not have the capacity to meet current or future vehicle demands. This is emphasised further by its increasing strategic importance as a key international trade route connecting the Haven Ports, the Midlands, the North, M25 and Stansted Airport. The A120 plays a vital role in the international trade and economic success of the East of England and the UK.

To the west of Braintree and the east of Colchester, the A120 is in part a high quality, modern road. While, between Braintree and the A12, it too often resembles a country road – pulling heavy goods vehicles through villages. Now, we have the opportunity to move the A120 away from our villages and double the capacity of our road network. The number of vehicles on the road will grow as our children become drivers and our growing businesses create more jobs and the Essex economy grows.

This public consultation is the culmination of not just a year's technical work, but almost 10 years of community and political persistence. But there is

still a lot of work to be done to make any long term improvement a reality.

These five options support our ambitions around economic growth and ensure that our roads meet the demands of our residents. This consultation is so important and I encourage all those affected by these proposals to contribute their views on the five options that are being presented.

**Councillor Kevin Bentley**

Deputy Leader and Cabinet Member  
for Economic Growth and Partnerships



Councillor Kevin Bentley



## 2. INTRODUCTION

Essex County Council is committed to supporting local and regional growth through the improvement of local infrastructure to leave a long term legacy of jobs, homes, and strong communities for our children and future generations.

The A120 is the primary route linking the A10 at Hertford in the West to the port of Harwich in the East, roughly following the original Roman road corridor, Stane Street. In the 1970's and 1980's road improvements provided bypasses of Bishops Stortford, Great Dunmow and Coggeshall and the line of the A120 around Colchester was diverted to follow the A12 via its upgrades at Stanway and the Colchester Northern Bypass. Finally a completely new line for the road to reach Harwich itself was constructed east of Colchester. In the early 2000's the Braintree to Stansted Airport dual carriage way bypass was opened.

On 7th March 2005 the Secretary of State for Transport made the A120 from the M11 to Marks Tey part of the Strategic Road Network in recognition of its essential role in the supporting long distance travel and commerce in the East of England.

Over 40 years of piecemeal improvements have provided Essex with an essential East/West link, however the effectiveness of the road and its ability

to support local and regional growth is restricted by the last major section of single carriage way road between Braintree and the A12.

Already heavily over-capacity, traffic volumes are set to increase further - and without improvement the regular bottlenecks on the A120 will get worse for everyone. The continual increase in traffic over the years and incidents has led to greater delays. Upgrading this strategically important road is essential to unlocking more economic potential in Essex and the wider South East with tangible benefits to road users, businesses and local neighbourhoods.

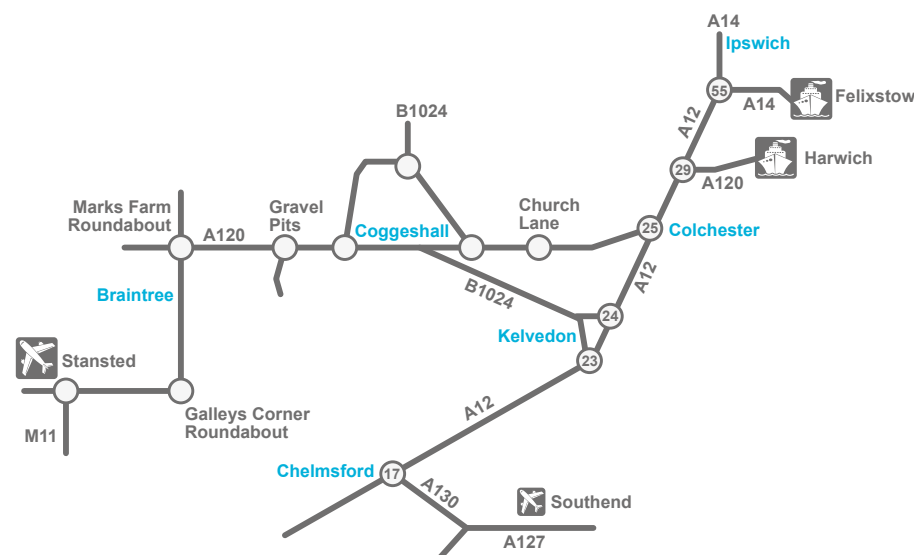
Although the A120 is part of the Strategic Road Network operated by Highways England, in 2015 the Government agreed that Essex County Council will lead on the work to determine the way forward. This is a unique opportunity for everyone in Essex to work with us to find the best solution to the problems.

In the last year we have identified issues, developed 68 options, assessed and reduced these to five best performing

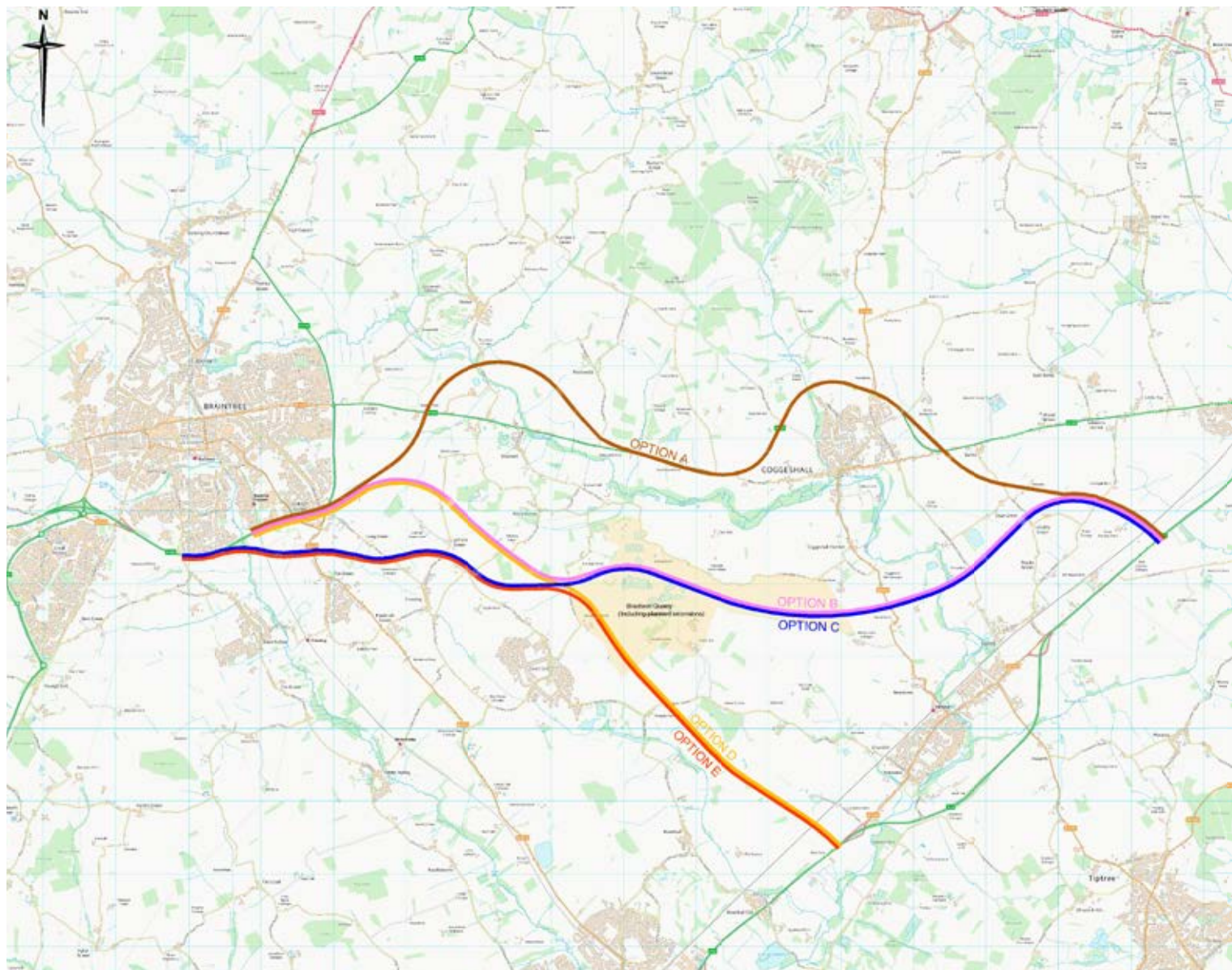
options. We now have sufficient information to consult individuals, communities, representative bodies and businesses on the five best performing route options for the A120 between Braintree and A12.

After consultation, Essex County Council will consider all responses, and use this information to make a preferred route option recommendation to the Secretary of State and Highways England.

It is important to remember that at this early stage the options have been technically developed to a point where we are confident that they can be built. However exact details about road alignments, junction design and environmental assessments and mitigation measures have not been completed. Like other major road projects this work is undertaken once a single option has been selected.



**This public consultation will run from the 17th January to the 14th March 2017.**  
The five route options that we are asking your views on are:



<b>Option A</b>	This route option is approximately 14km long, 5km of which runs along the line of the current A120. It starts just west of Galleys Corner then bypasses Bradwell to the north, crossing the River Blackwater, and then joins the current A120. East of Coggeshall, it leaves the current A120, heading south east where it joins the A12 at a new junction between Kelvedon and Marks Tey.
<b>Option B</b>	This route option does not follow the current A120 and is approximately 13km long. It starts just west of Galleys Corner, passes to the south of Glazenwood Park, runs through Bradwell Quarry, crosses the River Blackwater, joining the A12 at a new junction between Kelvedon and Marks Tey.
<b>Option C</b>	This route option does not follow the current A120 and is approximately 15km long. It starts on the Braintree southern bypass, passes north of Tye Green and Cressing, runs through Bradwell Quarry, crosses the River Blackwater, joining the A12 at a new junction between Kelvedon and Marks Tey.
<b>Option D</b>	This route option does not follow the current A120 and is approximately 9.5km long. It starts just west of Galleys Corner, passes south of Glazenwood Park, runs through the south-west corner of Bradwell Quarry, joining the A12 at Kelvedon south junction.
<b>Option E</b>	This route option does not follow the current A120 and is approximately 11km long. It starts on the Braintree southern bypass, passes north of Tye Green and Cressing, runs through the south-west corner of Bradwell Quarry, joining the A12 at Kelvedon south junction.



This document provides further information on the purpose of this consultation, it explains what will happen following the consultation and informs you when we will be in a position to report on the results.

Alongside this consultation document, the individual option maps and the Options Assessment Report is available and can be found on our website: [www.a120essex.co.uk](http://www.a120essex.co.uk)

## **We want to hear your views**

We need to understand the views of everyone who may use or be affected by the scheme.

We are asking you to:

- Indicate your preferred option and provide comments
- Tell us your views about future junction locations

The consultation will run for 8 weeks, commencing on Tuesday 17th January and closing at 23:59 on Tuesday 14th March 2017. Responses will be analysed and summarised in a Consultation Response Analysis Report.

The project team will then consider the results of the consultation and a Preferred Option recommendation will be taken to Essex County Council. If the Council endorses the recommendation the Preferred Option will be presented to the Secretary of State and Highways England for potential inclusion in the Road Investment Strategy.

After the Preferred Option is announced by Essex County Council further detailed work will take place.

This will include:

- continued engagement with local communities
- further investigations into environmental effects, including additional surveys
- further design work
- investigation into what mitigation may be required
- consideration of additional or improved paths/routes for cyclists, pedestrians and horse riders, and
- redirecting or providing local access routes.

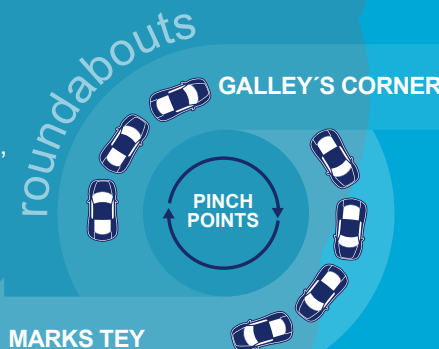
Once this work is complete a further public consultation will take place before a planning application is submitted (Development Consent Order).

- **Reliance is poor** - the road isn't built to deal with today's level of traffic and any unexpected condition or incidents
- If there is an **incident** then the carriage way is **too narrow** for other traffic to easily pass
- **Speed is slow** due to the number of vehicles and the narrow carriageway
- **No real time signage** to raise awareness if any incident
- Few suitable **alternative routes** for many road users

**41%** 

of traffic using Marks Farm roundabout is staying on the A120.

Major pinch points, that hold up drivers and create congestion are:



 **15%**

of vehicles each day are heavy good vehicles

In the evening peak vehicles travel

**22 mph SLOWER** 

and journeys are 14 minutes longer



There can be **less than 90cm** between passing heavy good vehicles on some parts of the road – not including wing mirrors.

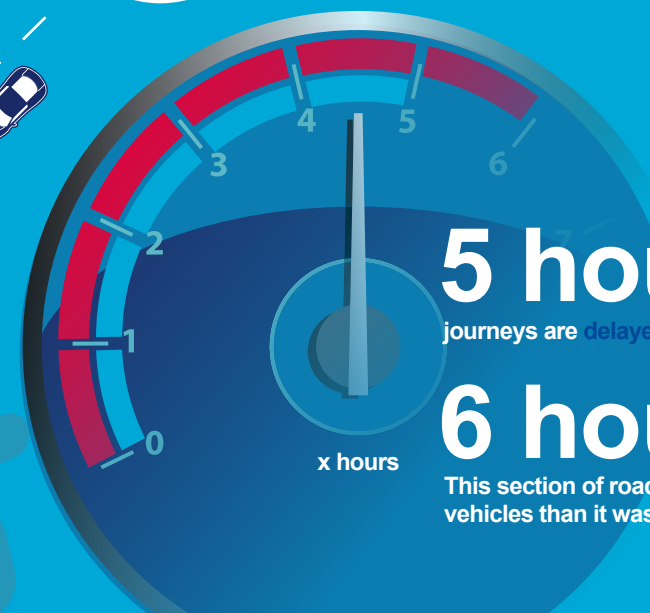
**UP TO 3,000**  
vehicles per hour in peak periods

**24%**  
of the road is regularly congested

**13KM OF ROAD**

up to  
**25,400**  
vehicles use the road each day

The current single carriage way is between 6m and 10m wide.



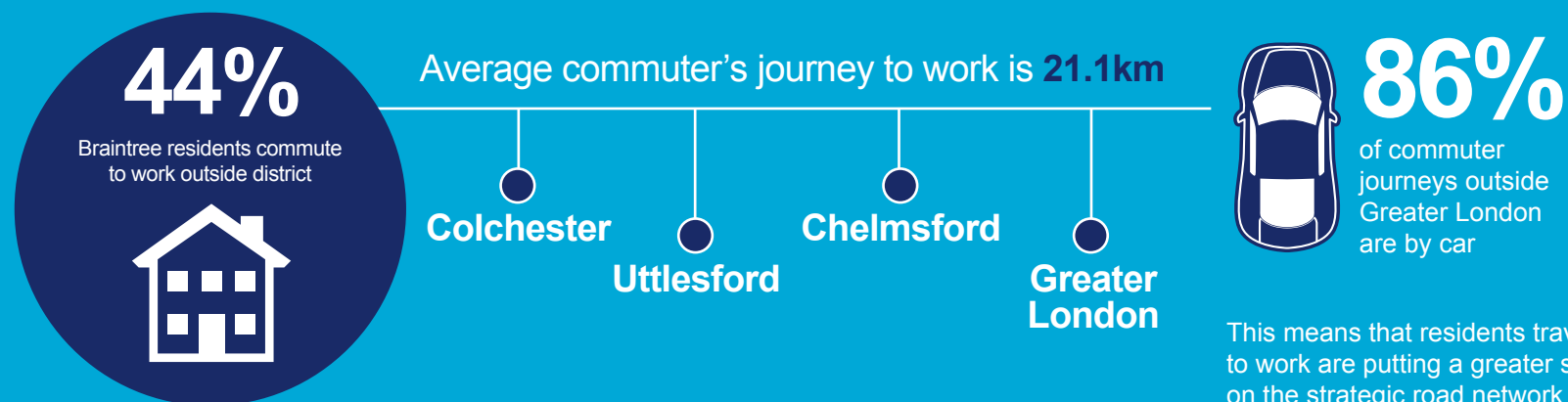
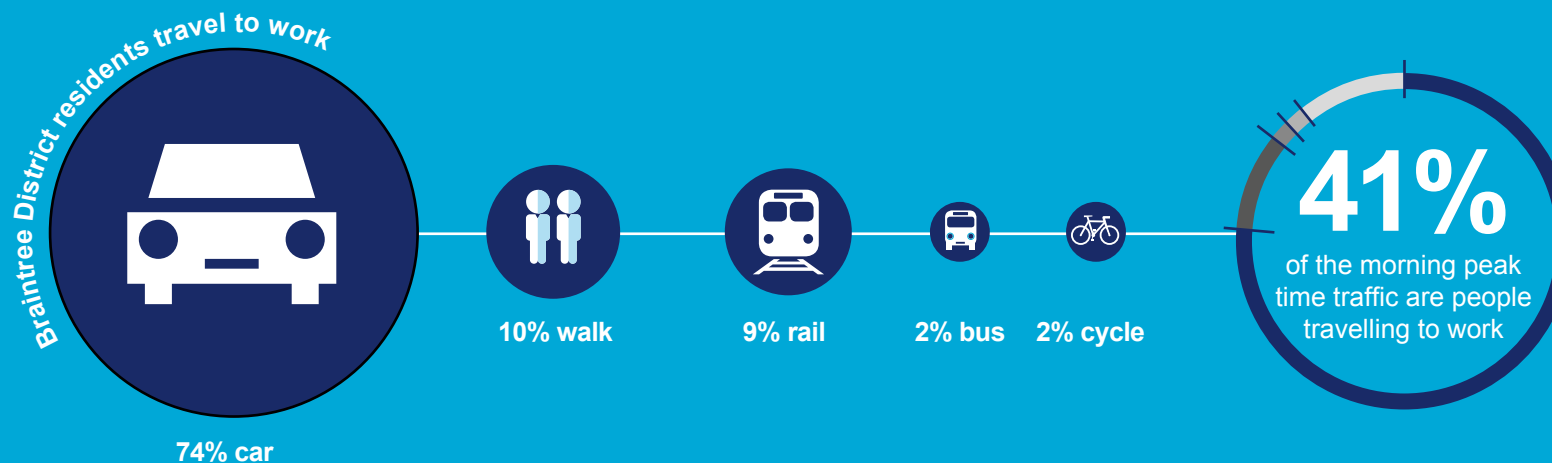
**5 hours** per day

journeys are **delayed** in both directions

**6 hours** per day

This section of road is carrying **more** vehicles than it was built for





This means that residents travelling to work are putting a greater stress on the strategic road network as more people are using cars to travel greater distances to employment.

Midlands & North England  
via M11 / A120 Corridor



Suffolk, Hertfordshire  
& Cambridgeshire



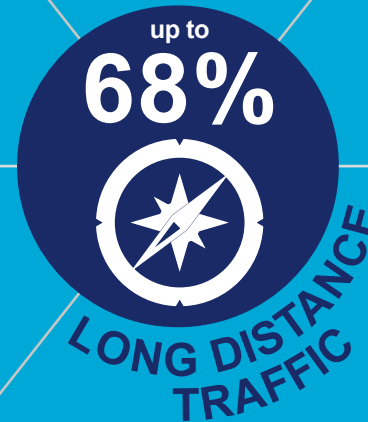
Ports

Harwich International Port  
Port of Felixstowe

10,200 employees  
244,000 tonnes freight per year  
17.5m passengers (2013)  
**Stansted**  
4th busiest airport in UK



M25



There is a **high rate of serious casualties** compared with the national level for single carriageway Trunk Roads



**FOOTWAYS**  
are poor and narrow

Few and poor facilities for  
**cyclists**



Between 2011 and 2015:

- ⚠ **172 collisions** between west of Galleys Corner and Marks Tey resulting in **266 casualties**
- ⚠ **The level of collisions and casualties was above the five year average for the section in 2014 and 2015**



70  
82 / 82A  
133 / 133A  
**30 Bus Stops**

Largest number of **collisions** occur at



Little Tey

Largest number of **collisions** between cyclists and pedestrians occur between Marks Tey and Little Tey

# 3. A120 BETWEEN BRAINTREE AND THE A12

The A120 runs between Stansted Airport in Essex and Harwich Port on the east coast of England.

The majority of this corridor lies within Braintree District with the eastern end lying in Colchester Borough. It passes through a number of villages including Bradwell, Broad Green and Marks Tey as well as bypassing Coggeshall.

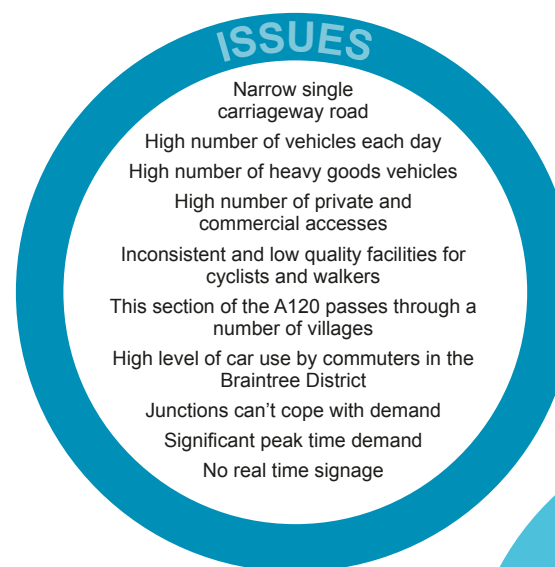
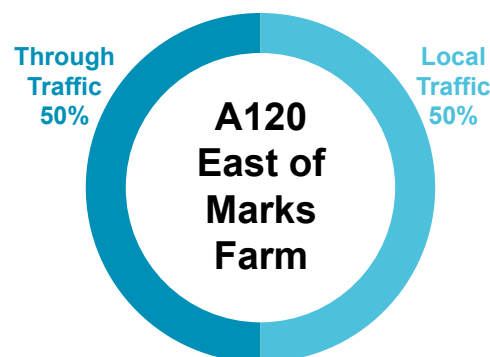
There is currently severe congestion at both ends of the A120 between Braintree and Marks Tey during peak times. This section is the one of the few remaining single carriageway sections on the A120 which is otherwise a dual carriageway route.

The Galleys Corner and Marks Farm roundabouts in the west and the junction with the A12 at Marks Tey in the east, in particular, suffer from severe congestion, which is not only limited to peak periods.

There is also congestion at the junction with the B1024 Colne Road, Coggeshall. Journey time delays, low travel speed and capacity issues are in part caused by the high number of side road junctions and, private and commercial premises that directly access the A120. This is not common of a road that is part of the UK strategic network. There are also safety concerns.

## Who's using the road today:

Today between 21,400 and 25,400 vehicles use this section of road every day. Around 50% of the vehicles passing through Bradwell in the weekday peak periods are making long distance trips (starting or ending outside Braintree or Colchester districts). This demonstrates that this section of the A120 is important as a strategic link to other parts of the UK and as a local link bringing communities closer together.



## In the future

As a key corridor for local and long distance (strategic) journeys it is likely that the current issues will be made worse by the natural growth in the amount of traffic both from economic growth in the East of England and from local growth from Braintree District Council, Colchester Borough Council, Uttlesford District Council and Tendring District Council.

To understand the amount of traffic growth that is likely to happen in the future, we have obtained traffic growth forecasts from Highways England. These forecasts are based the Government's National Transport and Trip End Models, which rely on data from local authority monitoring reports and forecasts for housing delivery.

In the future, this section of the A120 will experience significant congestion. Traffic modelling suggests that by 2026 around 43,000 vehicles per day would use an improved A120. If no improvements are made, the number of vehicles using this section of the A120 each day would be constrained to around 29,000 - due to the congested nature of the road.

The overall growth in traffic will be the same, however, and the vast majority of the 14,000 vehicles not provided for are likely to use alternative routes, leading to a significant increase in rat-running on less suitable local roads.

## Highways England's A12 Chelmsford to the A120 proposals

In March 2015, the government published its first Roads Investment Strategy (RIS1) with the simple premise: "a modern country needs modern roads".

The strategy announced £15.2 billion investment in England's motorways and major A roads. In the east, over £2 billion is being invested to create better and safer journeys across the region. Part of this investment includes proposals to widen the A12 between Junction 19 (north of Chelmsford) and Junction 25 (A120 interchange).

Since the Strategy was published, Highways England have been looking at options that might best resolve the problems with this section of the A12.

Like the A120, work is still at an early stage and Highways England will be consulting on potential solutions in early 2017. This is a separate consultation. If you wish to find out more and take part in Highway England's consultation please visit:

[www.highways.gov.uk/A12chelmsfordA120widening](http://www.highways.gov.uk/A12chelmsfordA120widening)

**Predicted growth  
in Essex between  
2016 and 2036**

**179,660  
homes  
needed**

**137,660  
homes  
planned**

**79,000  
new jobs**

## Scheme objectives

The primary aim is to create greater capacity to cope with the volume of traffic today, and predicted future growth in traffic.

**The following objectives for the A120 Braintree to A12 feasibility study were agreed by Essex County Council and Highways England:**

- Provide and maintain physical infrastructure that facilitates housing and economic growth and enables businesses to flourish.
- Reduce congestion related delay, improve journey time reliability and increase the overall transport capacity of the A120 corridor.
- Increase the resilience of the transport network by improving the ability of the A120 corridor to cope with incidents such as collisions, breakdowns, maintenance and flooding.
- Improve safety for all road users and road workers within the A120 corridor.
- Improve the environmental impact of transport on communities along the existing A120 corridor and reduce the impact of new infrastructure on the natural and built environment by design.
- Improve connectivity within communities and to the wider transport network by reducing severance and increasing accessibility for local residents.
- Improve the quality and connectivity of transport provision within the A120 corridor for people using non-motorised forms of transport, such as pedestrians, cyclists and horse riders. Encourage alternatives to car travel through improvements to the attractiveness of public transport along the A120 corridor.

## Building roads for tomorrow

- Any final route will be delivered and constructed to meet UK guidelines for a strategic road. This will be a dual carriageway road with grade separated junctions, advanced technology and a 70mph speed limit.
- It is also likely that access to and from the road will only be from grade separate junctions.
- New local roads would be provided to ensure existing local connections are maintained.
- Connections and routes for cyclists, pedestrians and horse riders, such as Public Rights of Way will be maintained and, where practicable, enhanced.





## 4. COMMUNITY ENGAGEMENT

In January 2015 we established five forums to ensure that the widest range of communities, political representatives, businesses and interest groups were informed and engaged in the feasibility study.

These forums have met four times before this consultation. Each forum is chaired by a rotating chair from the Forum Members, with Essex County Council and our technical partner Jacobs attending and providing the secretariat.

The forums have been incredibly useful for us to listen to local views and share information about the technical work.

It has been quite clear while discussing the A120 scheme that the problems are well recognised locally and that something needs to be done. However the issues need to be addressed correctly and in a way which considers other future developments being planned in the region. More information on Local Plan and developments can be found in the supporting information sheet.

### Key Issues that have been discussed at the forums:

- A120 improvement is needed.
- Proposed Local Plans need to be considered as scheme develops.
- Traffic from larger developments that have planning permission or are being developed need to be directed onto a 'new' A120 at the earliest possible point.
- What happens to the current A120, and improving it for pedestrians, cyclists and horse riders should be considered.
- Cyclists, pedestrians and horse riders need a road and network that better support their needs.
- A120 is essential to business and growth in the region.
- Local representatives would like to continue to be involved throughout the process.

#### MEMBERS

Members of parliament, Council members from Essex, Colchester and Braintree, and Chairpersons from Haven Gateway Partnership and the A12 Village Action Group

#### COMMUNITY Braintree & Colchester

Parish and borough / district council representatives from Braintree District and Colchester Borough

#### ENVIRONMENTAL

Local authorities, local groups with interests in environment and or community

#### ECONOMIC

Members of parliament, Council members from Essex, Colchester and Braintree, and Chairpersons from Haven Gateway Partnership and the A12 Village Action Group



## 5. GENERATION AND SELECTION OF ROUTES

The process for developing route options for any major road scheme is set by Highways England and national guidance. Figure 1 below shows the steps between issues identification and this public consultation.

Once we understood the issues and set objectives we were in a position to develop solutions and design options. This process aims to develop a range of alternative solutions that could address

the identified transport problems and achieve the objectives set for the project. We held a technical workshop with specialist and local authority

representatives to review our issues, constraints and to generate high level route options.

Figure 1

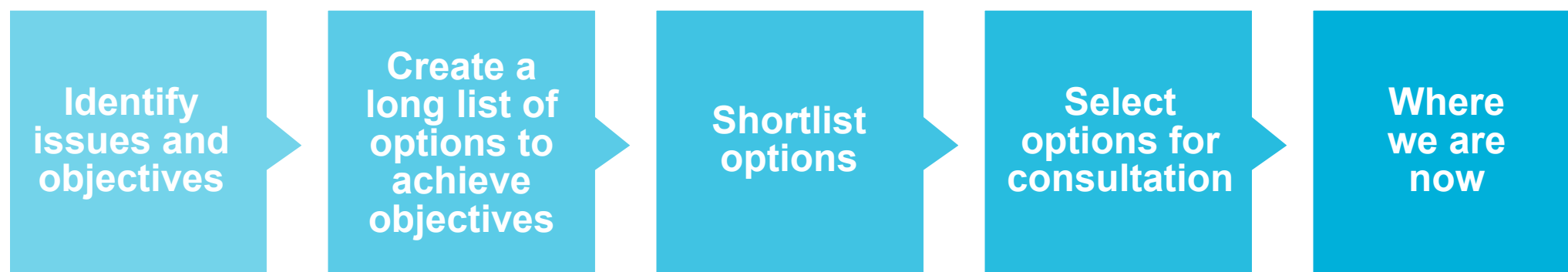


Figure 2

Figure 1 shows the process of generating and selecting route options. In summary the project team created a list of 68 routes made up of routes from previous studies, in response to the 2005 consultation and routes generated in an options workshop. These are shown in Figure 2.

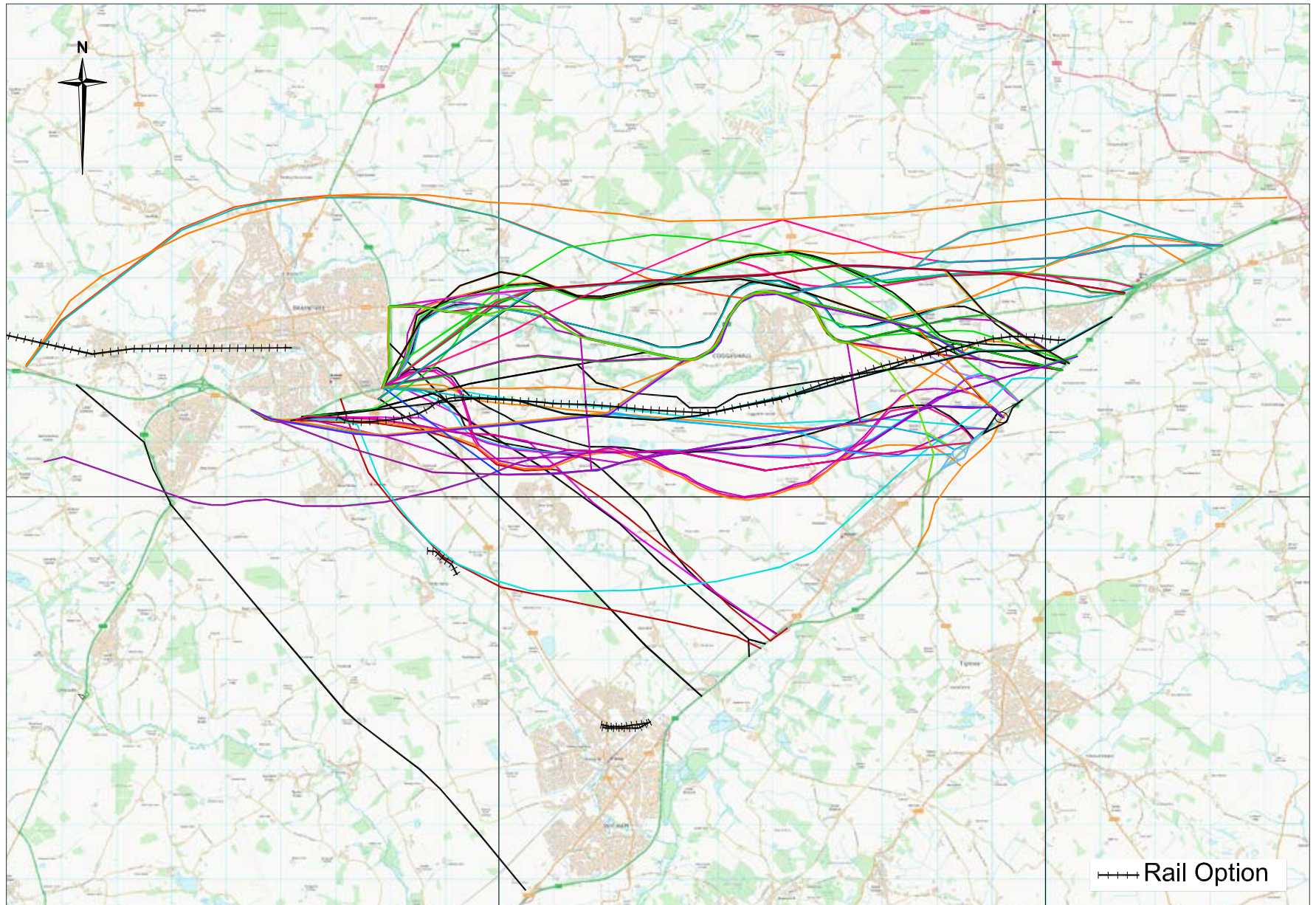
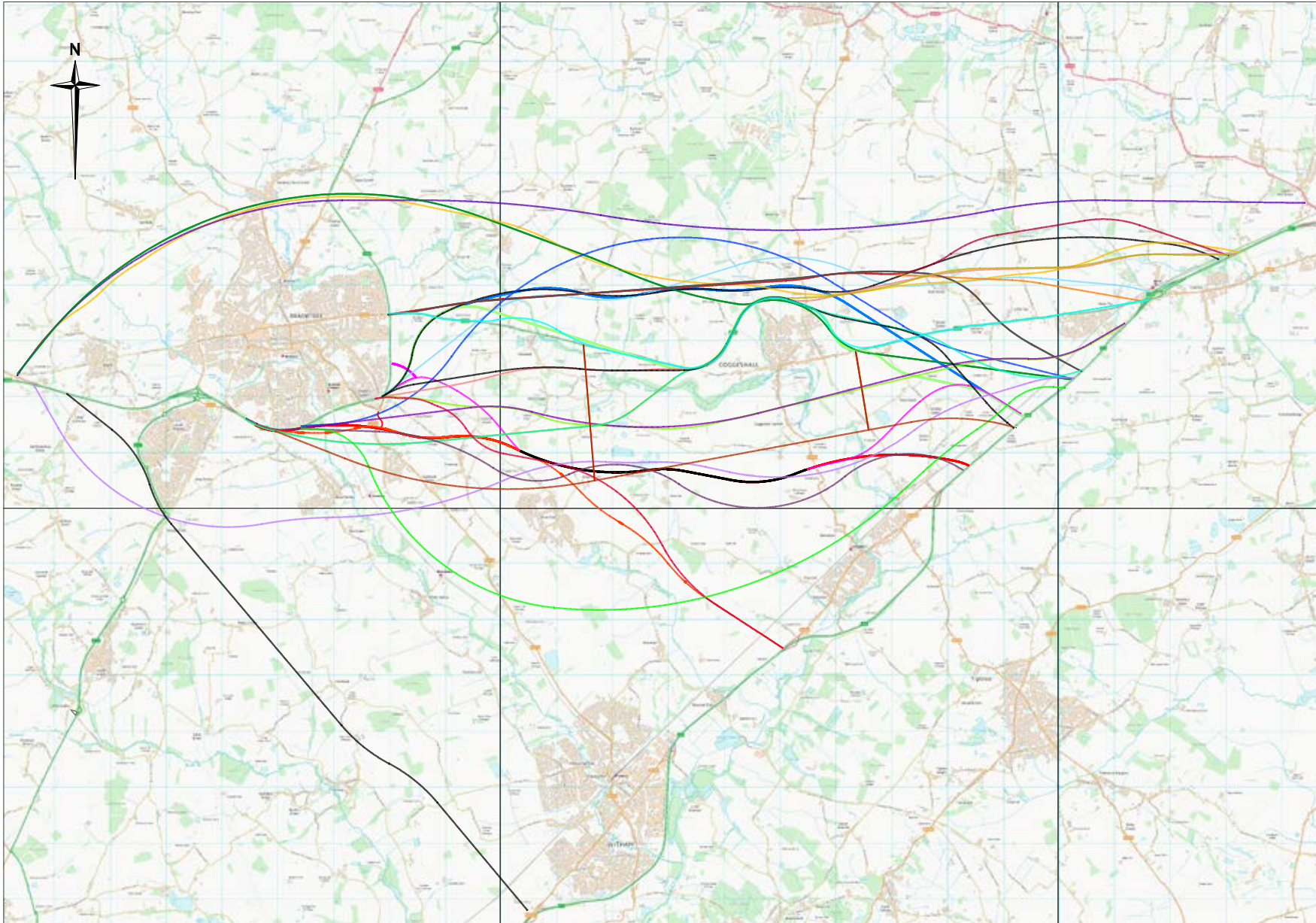




Figure 3



Options were then merged if they were similar and some options were removed if they had a significant environmental impact. This left around 30 possible routes. These are shown in Figure 3.



## Shortlisting options

Once we had the long list we looked at each option in more detail through a process called sifting. Sifting is where we assess each option against the objectives and see which ones perform best. The DfT Early Assessment Sifting Tool and transport appraisal process was used as part of the sifting process. This includes criteria such as is it the right strategic fit, does it show value for money, is there a financial and commercial case for doing it, and can it be delivered?

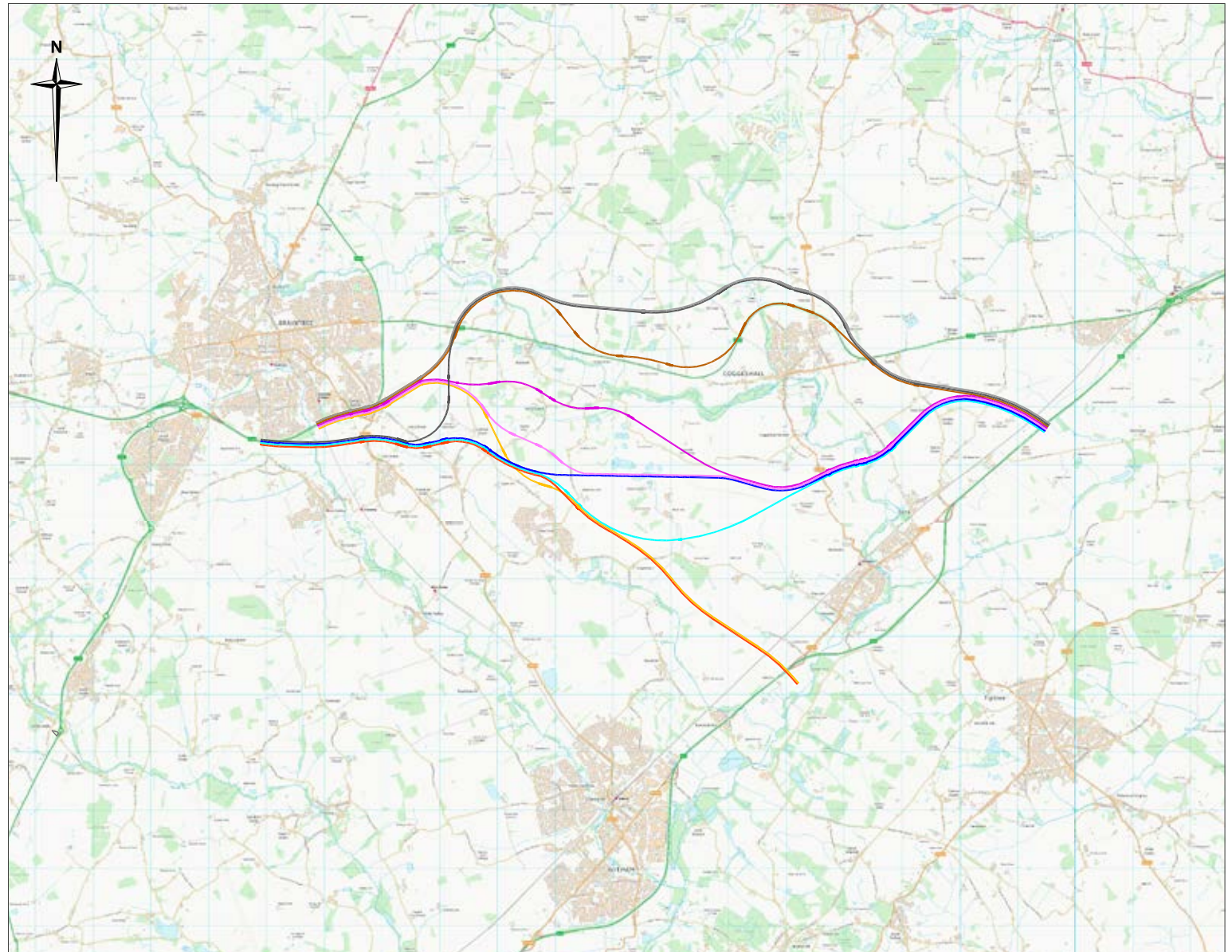
Each route is scored in relation to how well it meets the objectives on a zero to five scale. At this point any route which scored less than two was discarded. At this point both rail options were discarded.

The sifting process created a short list of 9 top performing options to take forward to the next stage of assessment and design. These are shown in Figure 4.

All options and the details of this work can be found in the Options Assessment Report published with this consultation.

The nine shortlisted options were then compared against a series of criteria, relating to environmental risk, engineering considerations and value for money. Some further route alignment adjustments to take account of evolving information resulted in five route options being selected to bring forward to this public consultation.

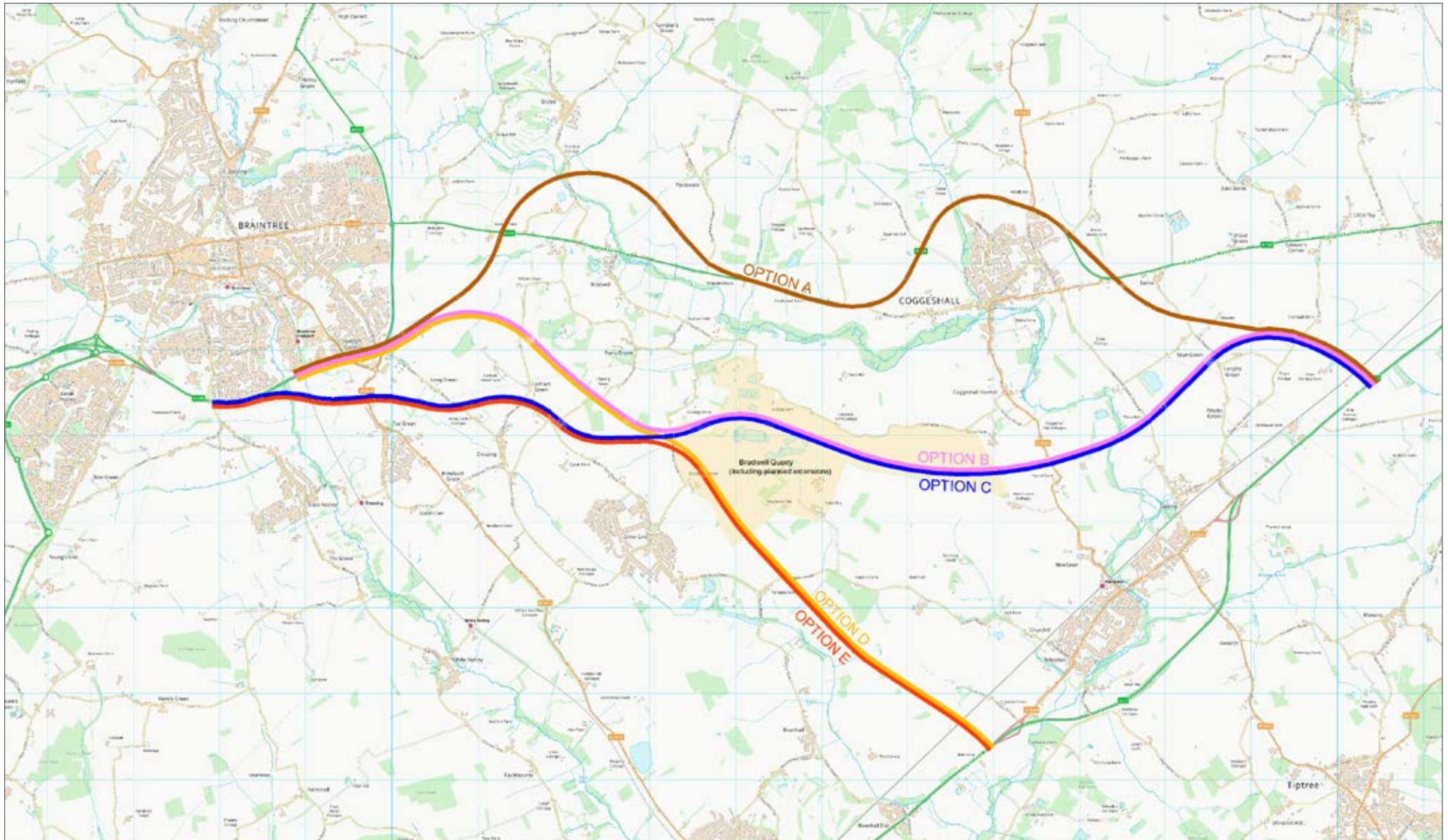
Figure 4





# 6. CONSULTATION ROUTES

This section discusses each route individually.



# OPTION A

Option A is approximately 14km long, of which approximately 5km runs along the line of the existing A120.

Option A commences west of B1018 Millennium Way with additional west facing slip roads provided to link to the B1018. The existing Galleys Corner roundabout would be removed and a new grade separated junction provided to the north east of the current roundabout, giving access to Marks Farm roundabout, the A131 north, Fowler's Farm roundabout and the B1018. Local roads would be realigned as part of this work. The existing pedestrian underpass west of the current roundabout would be retained. (This is similar to options B and D).

After the new Galleys Corner Junction, the route continues north-eastward, passing under the existing A120. The route then loops around, bypassing Bradwell to the north, passing to the

north of Miles Farm and crossing over the River Blackwater and Water Lane on a viaduct north of the Shelbourn Bridge.

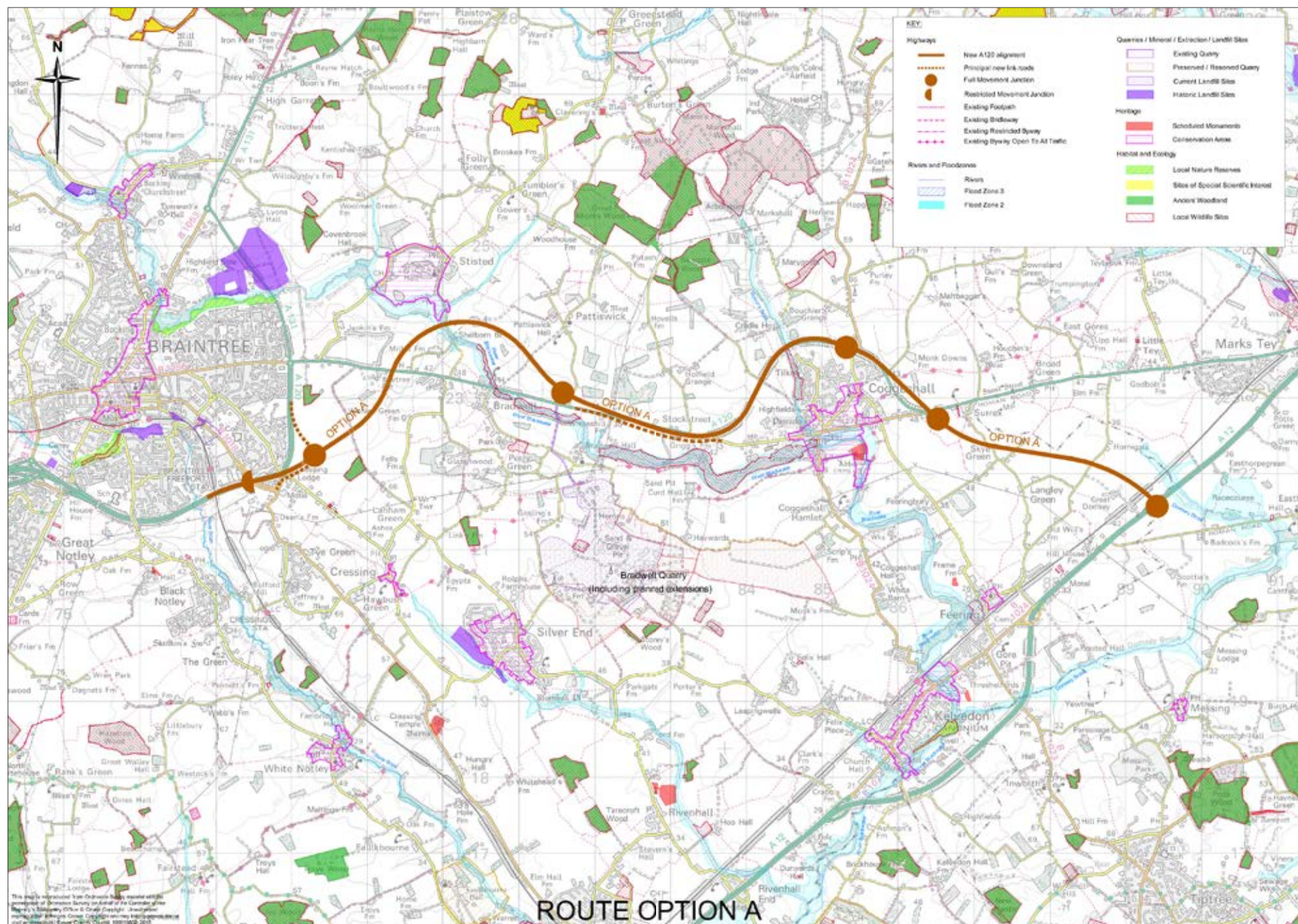
The route then re-joins the existing A120 alignment near Doghouse Road. A grade separated junction would be provided here to provide access to and from Bradwell and the west of Coggeshall. The proposed A120 then runs along the corridor of the existing A120, initially to the north, then crossing over to the south after Whiteshill Farm. A separate local access road would be provided between Bradwell and Coggeshall with a path for pedestrians, horse riders and cyclists along with access tracks to properties.

The proposed A120 then joins the existing single-carriageway Coggeshall bypass which would be widened to dual carriageway. (It is anticipated that the widening would generally be on the north side, away from Coggeshall). The existing pedestrian underpass at Tilkey

Road would be extended. The existing at grade priority junction at B1024 Colne Road would be replaced with a new grade separated junction. Following that, the new A120 would move off-line to the east of the existing A120 and head southeast, crossing the existing A120 at the beginning of the Coggeshall bypass with a grade separated junction provided here at Colchester Road to give access to the existing A120 and Coggeshall.

After the Colchester Road junction the route would continue south-eastward towards the A12. The route then crosses over the Great Eastern Mainline railway to join the A12 at a new grade separated junction between the existing Kelvedon North (Junction 24) and Marks Tey (Junction 25) junctions. (This is similar to options B and C).





# OPTION B

Option B does not follow the current A120. It is approximately 13km long,

Option B commences west of B1018 Millennium Way with additional west facing slip roads provided to link to the B1018. The existing Galleys Corner roundabout would be removed and a new grade separated junction provided to the north-east of the current roundabout, giving access to Marks Farm roundabout, the A131 north, Fowler's Farm roundabout and the B1018. Local roads would be realigned as part of this work. The existing pedestrian underpass west of the current roundabout would be retained. (This is similar to options A and D).

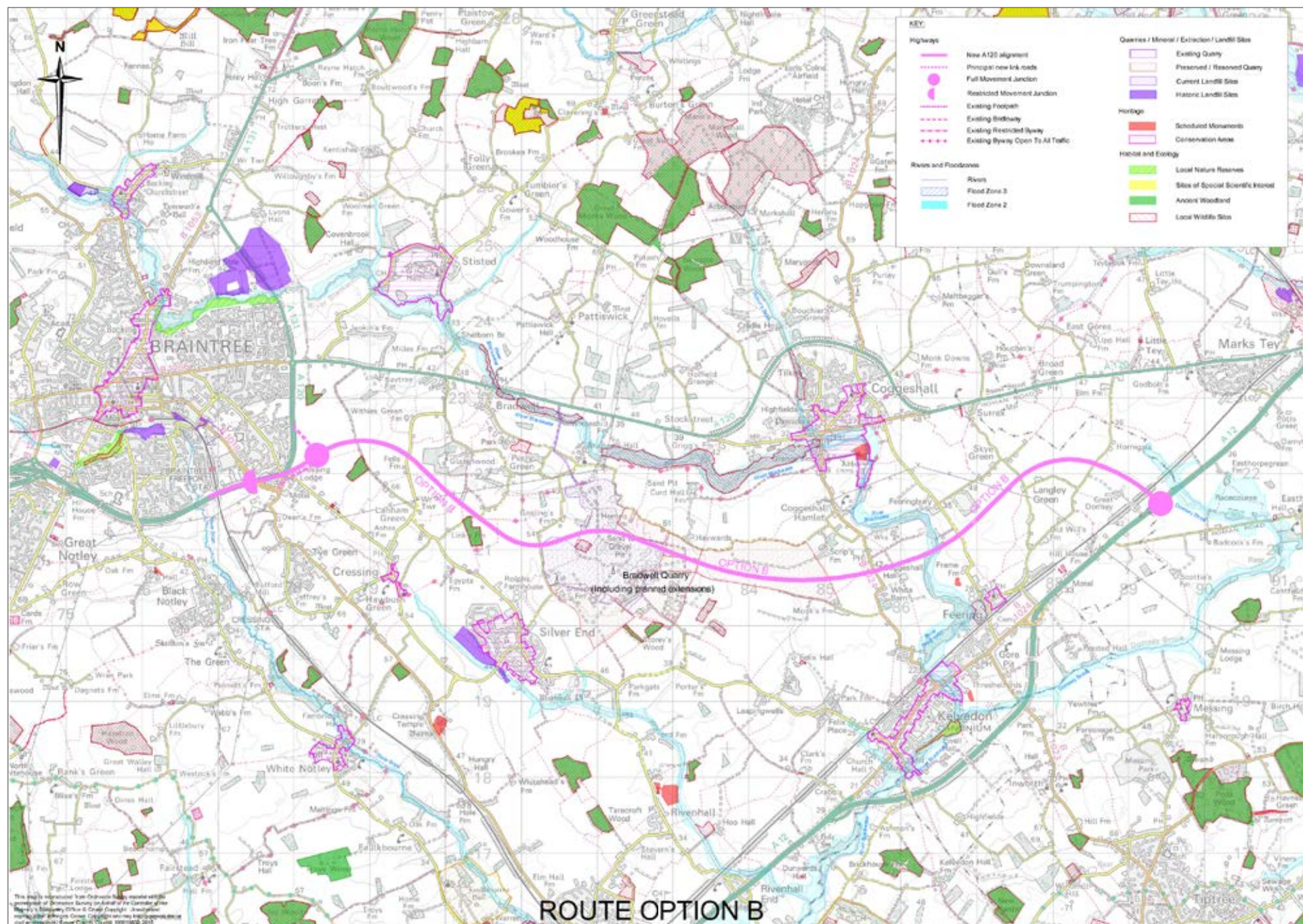
Following the new Galleys Corner junction the route turns south-eastward, passing between Lanham Wood and Glazenwood Park and to the north of Links Wood. (This is similar to options D, until passing Links Wood, west of Bradwell Quarry).

The route continues eastward, entering Bradwell Quarry and passing to the south of the existing processing plant and over the access road to the planned Rivenhall Integrated Waste Management Facility (IWMF). The route continues through areas of planned future quarrying, running to the north of Pantlings Lane and heads toward the River Blackwater. The River Blackwater would be crossed on a viaduct to the

north of Coggeshall Hall, this location being chosen to avoid designated environmentally sensitive areas. Following the River Blackwater, the route continues eastward to the north of Langley Green after which the route bears southward towards the A12. (This is similar to option C).

The route then crosses over the Great Eastern Mainline railway to join the A12 at a new grade separated junction between the existing Kelvedon North (Junction 24) and Marks Tey (Junction 25) junctions. (This is similar to options A and C).





# OPTION C

Option C does not follow the current A120. It is approximately 15km long.

Option C commences on the Braintree Southern Bypass, leaving the existing A120 alignment to the east of Notley Road bridge, passing over the River Brain and under the Braintree to Witham railway line. Access to and from Galleys Corner Roundabout would be maintained from the new A120 via a limited movement grade separated junction with west facing off / on sliproads.

The route then heads east to a new grade separated junction to the north of Tye Green which would connect to the existing A120, the B1018 and Fowler's Farm roundabout. The connection to

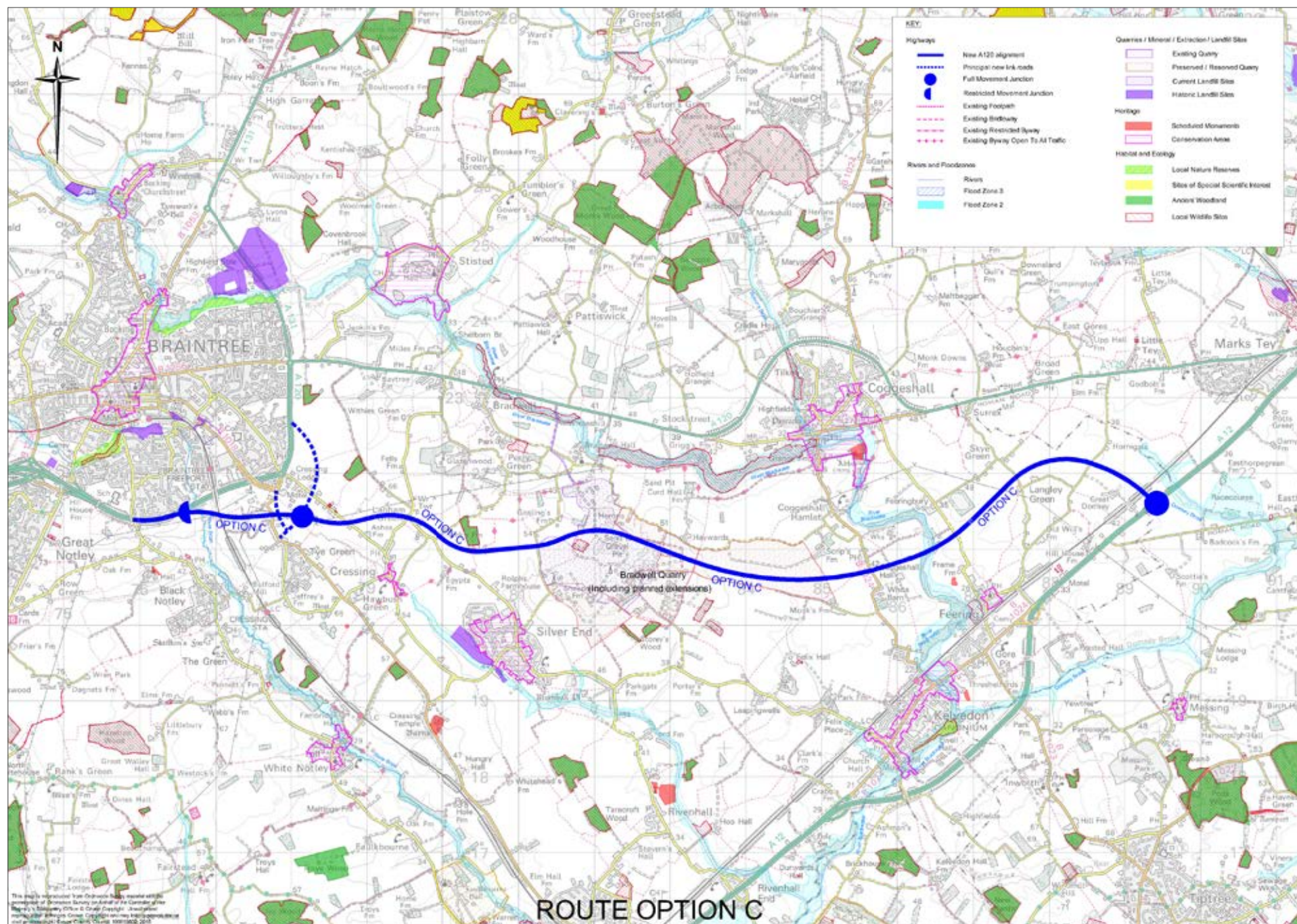
the existing A120 to the north would be through a new dual carriageway link road that bypasses Galleys Corner, allowing traffic to head to Marks Farm roundabout and on to the A131. The route continues eastward passing to the north of Cressing and then to the south of Links Wood. (This is similar to option E).

The route continues eastward, entering Bradwell Quarry and passing to the south of the existing processing plant and over the access road to the planned Rivenhall Integrated Waste Management Facility (IWMF). The route continues through areas of planned future quarrying, running to the north of Pantlings Lane and heads toward the

River Blackwater. The River Blackwater would be crossed on a viaduct to the north of Coggeshall Hall, this location being chosen to avoid designated environmentally sensitive areas. Following the River Blackwater, the route continues eastward to the north of Langley Green after which the route bears southward towards the A12. (This is similar to option B).

The route then crosses over the Great Eastern Mainline railway to join the A12 at a new grade separated junction between the existing Kelvedon North (Junction 24) and Marks Tey (Junction 25) junctions. (This is similar to options A and B).





# OPTION D

Option D does not follow the current A120. It is approximately 9.5km long.

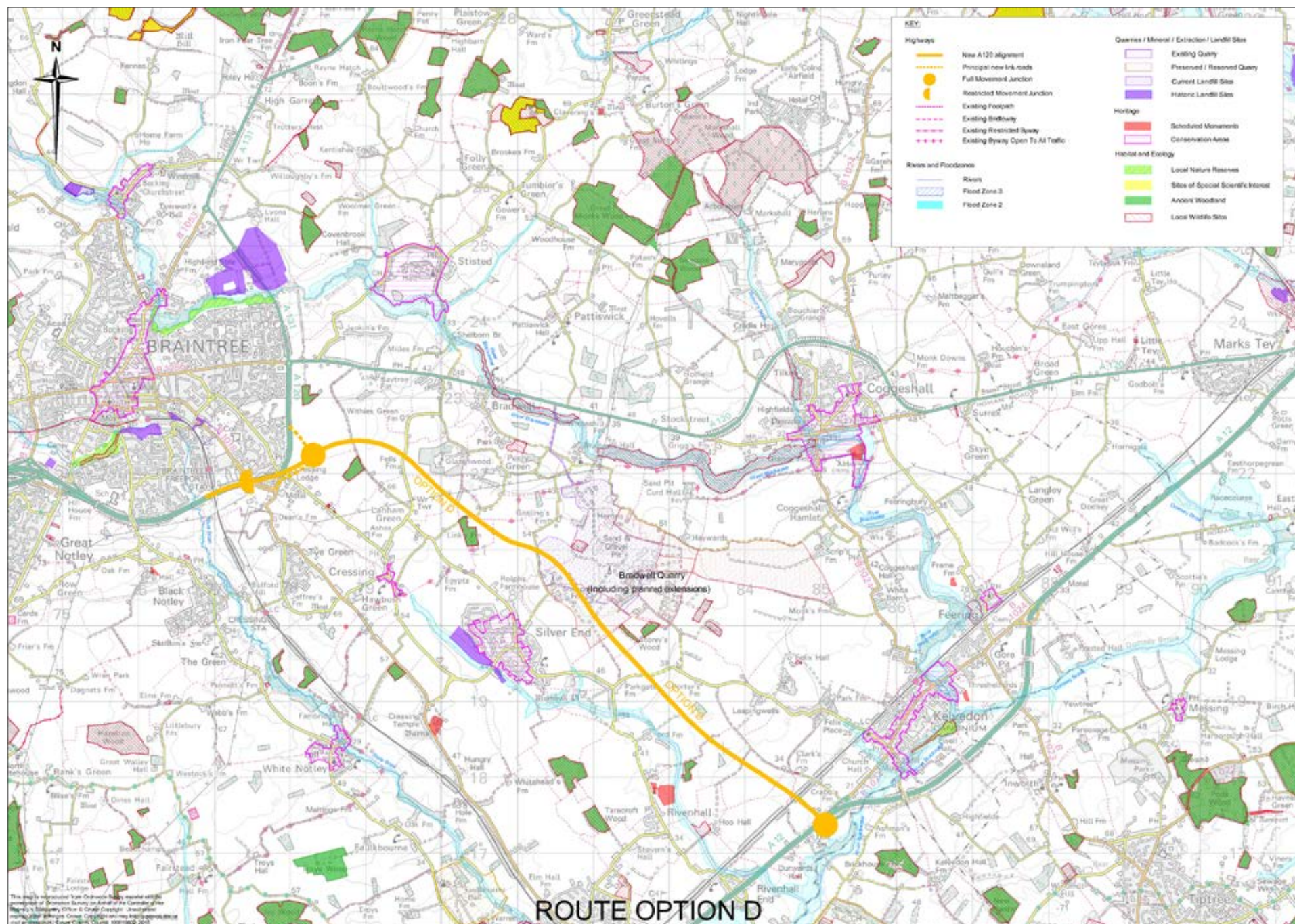
Option D commences west of B1018 Millennium Way with additional west facing slip roads provided to link to the B1018. The existing Galleys Corner roundabout would be removed and a new grade separated junction provided to the north-east of the current roundabout, giving access to Marks Farm roundabout, the A131 north, Fowler's Farm roundabout and the B1018. Local roads would be realigned as part of this work. The existing pedestrian underpass west of the current roundabout would be retained. (This is similar to options A and B).

Following the new Galleys Corner junction the route turns south-eastward, passing between Lanham Wood and

Glazenwood Park and to the north of Links Wood. (This is similar to option B, until passing Links Wood, west of Bradwell Quarry).

After Links Wood, the Option D route continues in a south-eastward direction, running through the south-western extents of the existing Bradwell quarry and southern future quarry extension, passing to the south of the planned IWMF site. The route then continues south-eastward through countryside toward the A12, crosses over the Great Eastern Main Line railway and joins the A12 at a remodelled Kelvedon South Junction (Junction 23).





# OPTION E

Option E does not follow the current A120. It is approximately 11km long.

Option E commences on the Braintree Southern Bypass, leaving the existing A120 alignment to the east of Notley Road bridge, passing over the River Brain and under the Braintree to Witham railway line. Access to and from Galleys Corner Roundabout would be maintained from the new A120 via a limited movement grade separated junction with west facing off / on sliproads.

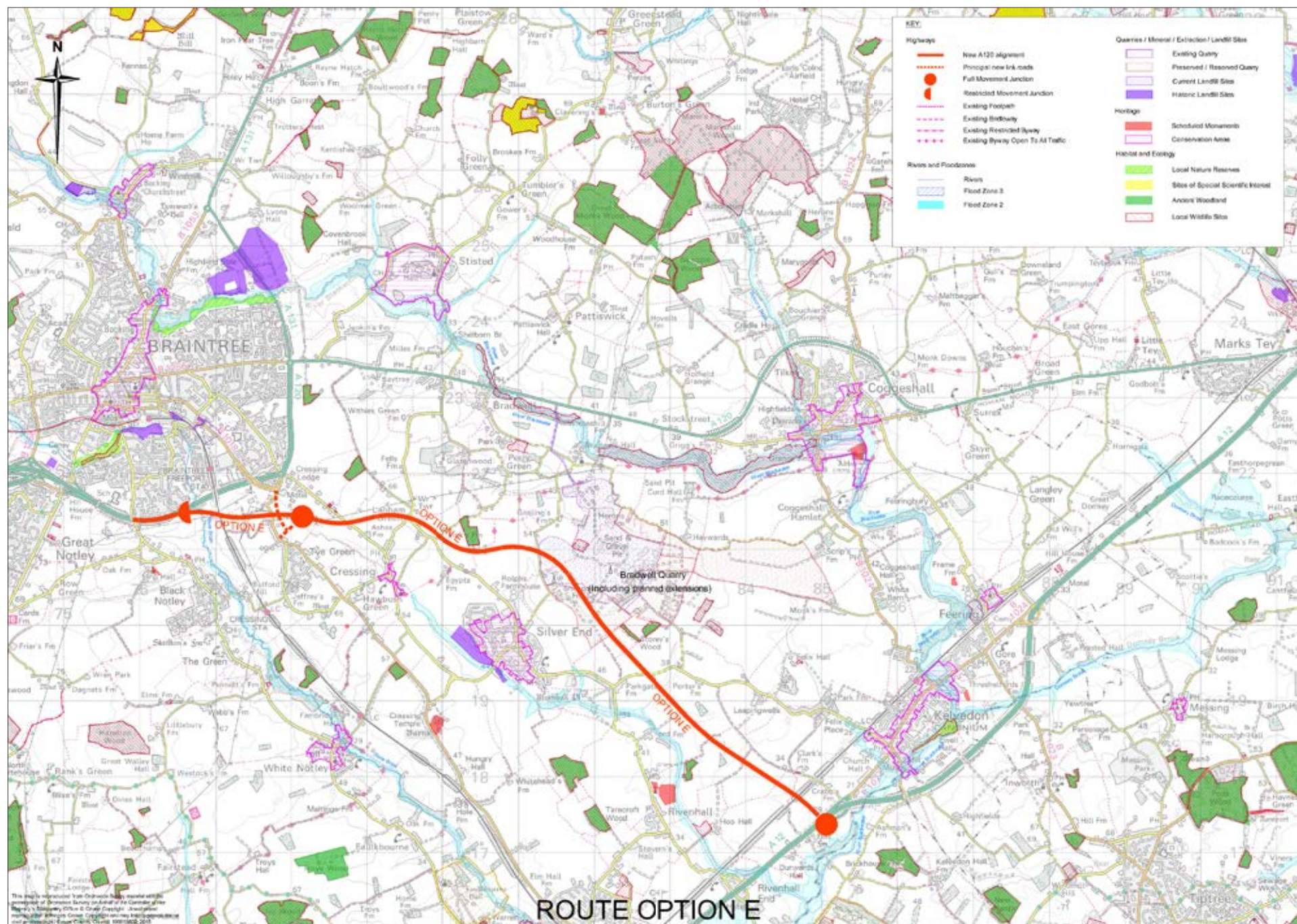
The route then heads east to a new grade separated junction to the north of Tye Green which would connect to the existing A120, B1018 and Fowler's

Farm roundabout. The connection to the existing A120 to the north would be through a new dual carriageway link road that bypasses Galleys Corner, allowing traffic to head to Marks Farm roundabout and on to the A131. The route continues eastward passing to the north of Cressing and then to the south of Links Wood. (This is similar to option C).

After Links Wood, Option E follows the route of Option D - continuing south-eastward running through the south-western extents of the existing Bradwell quarry and southern future quarry extension, passing to the south of the planned IWMF site. The route

then continues south-eastward through countryside toward the A12, crosses over the Great Eastern Main Line railway and joins the A12 at a remodelled Kelvedon South Junction (Junction 23).





# 7. ENVIRONMENTAL ASSESSMENT OF EACH OPTION

AIR QUALITY AND CARBON EMISSIONS	
<b>OPTION A</b>	<p>The online option may lead to a reduction in traffic and improvements in air quality for some sections of the existing A120.</p> <p>For some sections increased traffic may lead to a slight worsening of air quality for residents along the new route. However, air quality is likely to remain within acceptable levels and effects are likely to be slight.</p>
<b>OPTION B</b>	<p>It is predicted that the option may lead to reduced traffic and congestion on the existing A120. This is likely to lead to improvements in air quality for some properties located close to the existing A120 road.</p> <p>The option may introduce an increase in vehicles and lead to a slight worsening of air quality for residents along the new route. However, air quality is likely to remain within acceptable levels and effects are likely to be slight.</p>
<b>OPTION C</b>	<p>It is predicted that the option may lead to reduced traffic and congestion on the existing A120. This is likely to lead to improvements in air quality for some properties located close to the existing A120 road.</p> <p>The option may introduce an increase in vehicles and lead to a slight worsening of air quality for residents along the new route. However, air quality is likely to remain within acceptable levels and effects are likely to be slight.</p>
<b>OPTION D</b>	<p>It is predicted that this route may lead to reduced traffic and congestion along the existing A120. This is likely to lead to improvements in air quality for some properties located close to the existing A120 road.</p> <p>The option may introduce an increase in vehicles and lead to a slight worsening of air quality for residents along the new route. However, air quality is likely to remain within acceptable levels and effects are likely to be slight.</p>
<b>OPTION E</b>	<p>It is predicted that this option may lead to reduced traffic and congestion along the existing A120. This is likely to lead to improvements in air quality for some properties located close to the existing A120 road.</p> <p>The option may introduce an increase in vehicles and lead to a slight worsening of air quality for residents along the new route. However, air quality is likely to remain within acceptable levels and effects are likely to be slight.</p>



## CULTURAL HERITAGE

<b>OPTION A</b>	Enhancements could be made where Public Rights of Ways are being improved, interpretative signage could be put in place to provide educational information on local heritage.	<p>Where the route leaves the online route, unknown archaeological remains may be affected. Further work would be required to confirm the presence of these remains.</p> <p>There are a number of Grade II listed buildings close to the route whose setting (visual and noise) may be effected. The setting of a Grade II* listed building may be affected.</p> <p>Areas of undesignated buildings and remains may be present along the route which may be affected during construction. The exact location of these sites will be determined prior to construction.</p> <p>Effects may be limited by further investigation and avoidance or removal of assets. Earthworks and structures will be carefully designed to limit impacts.</p>
<b>OPTION B</b>	Enhancements could be made where Public Rights of Ways are being improved, interpretative signage could be put in place to provide educational information on local heritage.	<p>May affect unknown archaeological remains that may be present within the road footprint. Further work would be required to confirm the presence of these remains.</p> <p>There are a number of Grade II listed buildings close to the route whose setting (visual and noise) may be effected. The setting of one undesignated buildings/remains may be affected.</p> <p>Effects may be limited by further investigation and avoidance or removal of assets. Earthworks and structures will be carefully designed to limit impacts.</p>
<b>OPTION C</b>	Enhancements could be made where Public Rights of Ways are being improved, interpretative signage could be put in place to provide educational information on local heritage.	<p>May affect unknown archaeological remains that may be present within the road footprint. Further work would be required to confirm the presence of these remains.</p> <p>There are a number of Grade II listed buildings close to the route whose setting (visual and noise) may be affected.</p> <p>Effects may be limited by further investigation and avoidance or removal of assets. Earthworks and structures will be carefully designed to limit impacts.</p>
<b>OPTION D</b>	Enhancements could be made where Public Rights of Ways are being improved, interpretative signage could be put in place to provide educational information on local heritage.	<p>May affect unknown archaeological remains that may be present within the road footprint. These may include a buried Roman Building and Roman enclosure. As the potential areas for the presence of these remains is large, further work would be required to confirm the presence of these remains.</p> <p>The setting of a Grade II* listed building, undesignated buildings/remains and two scheduled monuments near the route whose setting may be affected. There are a number of Grade II listed buildings and one undesignated building/remains close to the route whose setting (visual and noise) may be affected.</p> <p>Effects may be limited by further investigation and avoidance or removal of assets. Earthworks and structures will be carefully designed to limit impacts.</p>
<b>OPTION E</b>	Enhancements could be made where Public Rights of Ways are being improved, interpretative signage could be put in place to provide educational information on local heritage.	<p>May affect unknown archaeological remains that may be present within the road footprint. These may include a buried Roman Building and Roman enclosure. As the potential areas for the presence of these remains is large, further work would be required to confirm the presence of these remains.</p> <p>There are a number of Grade II listed building and two scheduled monuments near the route whose setting may be affected. The setting of a Grade II* listed building may be affect. Undesignated buildings/remains may be affected.</p> <p>Effects may be limited by further investigation and avoidance or removal of assets. Earthworks and structures will be carefully designed to limit impacts.</p>

## LANDSCAPE

<b>OPTION A</b>	<p>Could affect the views from and the settling of a number of listed buildings and across the Blackwater river valley. There are a number of rural dwellings, farmsteads and settlements from which earthworks and structures may be visible. Views may be effected from Stisted Conservation areas. Could affect views from numerous public rights of way and part of the Essex Way.</p> <p>Settlements notably south of Braintree and east of Coggeshall may have views affected.</p> <p>Effects can be limited through careful design of structures and earthworks.</p>
<b>OPTION B</b>	<p>Could affect the views from and the settling of a number of listed buildings and across the Blackwater river valley. There are a number of rural dwellings, farmsteads and settlements from which earthworks and structures may be visible. Views may be affected from non-designated historic park and garden at Glazenwood.</p> <p>Could affect views from numerous public rights of way, part of the Essex Way and the Common Land at Pantlings Lane.</p> <p>Effects can be limited through careful design of structures and earthworks.</p>
<b>OPTION C</b>	<p>Could affect views from and the setting of a number of rural dwellings, farmsteads, listed buildings and settlements from which earthworks and structures may be visible. Option may affect River Brain and River Blackwater valley. Conservation areas from which views may be affected include Cressing and Silver End.</p> <p>Could affect views from numerous public rights of way, part of the Essex Way and the Common Land at Pantlings Lane. Two areas of common land may be affected.</p> <p>Effects can be limited through careful design of structures and earthworks.</p>
<b>OPTION D</b>	<p>Could affect the views from and the settling of a number of listed buildings and across the River Blackwater valley. The route would run close to the non-designated historic park and garden at Glazenwood. There are a number of rural dwellings, farmsteads and settlements from which earthworks and structures may be visible. Conservation areas from which views may be affected include Cressing, Silver End and Kelvedon.</p> <p>Could affect views from numerous public rights of way and part of the, Essex Way.</p> <p>Effects can be limited through careful design of structures and earthworks.</p>
<b>OPTION E</b>	<p>Could affect the views from and the settling of a number of listed buildings and across the River Blackwater and Brain valleys. There are a number of rural dwellings, farmsteads and settlements from which earthworks and structures may be visible. Conservation areas from which views may be affected include Cressing, Silver End and Kelvedon. Could affect views from numerous public rights of way and part of the Essex Way. Two areas of Common Land may be affected.</p> <p>Effects can be limited through careful design of structures and earthworks.</p>

## NATURE CONSERVATION

<b>OPTION A</b>	Opportunities will be sought to enhance existing habitat where possible.	<p>Potential disturbance of migratory birds on route to / from designated sites. Potential impacts to Local Nature Reserves and Local Wildlife Sites in proximity to the option. These areas will not be directly disturbed and mitigation will be put in place to prevent disturbance.</p> <p>A number of habitats have been identified along the route which may be used by protected species. The presence of these will be further investigated and mitigation measures developed.</p> <p>Effects can be limited by enhancing retained habitats, minimising clearance where possible, screening vegetation and provision of connectivity routes above and below the road can be used to limit effects.</p>
<b>OPTION B</b>	Opportunities will be sought to enhance existing habitat where possible.	<p>Potential disturbance of migratory birds on route to / from designated sites. Potential impacts to Local Wildlife Sites and Local Nature Reserves in proximity to the option. These areas will not be directly disturbed and mitigation will be put in place to prevent disturbance.</p> <p>A number of habitats have been identified along the route which may be used by protected species. The presence of these will be further investigated and mitigation measures developed.</p> <p>Effects can be limited by enhancing retained habitats, minimising clearance where possible, screening vegetation and provision of connectivity routes above and below the road can be used to limit effects.</p>
<b>OPTION C</b>	Opportunities will be sought to enhance existing habitat where possible.	<p>Potential disturbance of migratory birds on route to / from designated sites. Potential impacts to Local Nature Reserves and Local Wildlife Sites in proximity to the option. These areas will not be directly disturbed and mitigation will be put in place to prevent disturbance.</p> <p>A number of habitats have been identified along the route which may be used by protected species. The presence of these will be further investigated and mitigation measures developed.</p> <p>Effects can be limited by enhancing retained habitats, minimising clearance where possible, screening vegetation and provision of connectivity routes above and below the road can be used to limit effects.</p>
<b>OPTION D</b>	Opportunities will be sought to enhance existing habitat where possible.	<p>Potential disturbance of migratory birds on route to / from designated sites. Potential impacts to Local Wildlife Sites and Local Nature Reserves in proximity to the option. These areas will not be directly disturbed and mitigation will be put in place to prevent disturbance.</p> <p>A number of habitats have been identified along the route which may be used by protected species. The presence of these will be further investigated and mitigation measures developed.</p> <p>Effects can be limited by enhancing retained habitats, minimising clearance where possible, screening vegetation and provision of connectivity routes above and below the road can be used to limit effects.</p>
<b>OPTION E</b>	Opportunities will be sought to enhance existing habitat where possible.	<p>Potential disturbance of migratory birds on route to / from designated sites. Potential impacts to Local Wildlife Sites and Local Nature Reserves in proximity to the option. These areas will not be directly disturbed and mitigation will be put in place to prevent disturbance.</p> <p>A number of habitats have been identified along the route which may be used by protected species. The presence of these will be further investigated and mitigation measures developed.</p> <p>Effects can be limited by enhancing retained habitats, minimising clearance where possible, screening vegetation and provision of connectivity routes above and below the road can be used to limit effects.</p>

## GEOLOGY AND SOILS

<b>OPTION A</b>	<p>Areas of contaminated land may be encountered during construction of the option. One abstraction well, may be impacted by construction work, suitable mitigation measures would be considered. Construction may lead to the permanent loss of good quality soil.</p> <p>It is considered that potential impacts can be readily managed through further investigation into potential contamination sources, environmental management plans and potential relocation of abstraction wells.</p>
<b>OPTION B</b>	<p>Areas of contaminated land may be encountered during construction of the option. One abstraction well, may be impacted by construction work, suitable mitigation measures would be considered.</p> <p>Construction may lead to the permanent loss of good quality soil.</p> <p>It is considered that potential impacts can be mitigated through further investigation into potential contamination sources, environmental management plans and potential relocation of abstraction wells.</p>
<b>OPTION C</b>	<p>Areas of contaminated land may be encountered during construction of the option. One abstraction well, may be impacted by construction work, suitable mitigation measures would be considered. Construction may lead to the permanent loss of good quality soil.</p> <p>It is considered that potential impacts can be readily managed through further investigation into potential contamination sources, environmental management plans and potential relocation of abstraction wells.</p>
<b>OPTION D</b>	<p>Areas of contaminated land may be encountered during construction of the option.</p> <p>Construction may lead to the permanent loss of good quality soil.</p> <p>It is considered that potential impacts can be mitigated through further investigation into potential contamination sources and environmental management plans.</p>
<b>OPTION E</b>	<p>Areas of contaminated land may be encountered during construction of the option.</p> <p>Construction may lead to the permanent loss of good quality soil.</p> <p>It is considered that potential impacts can be mitigated through further investigation into potential contamination sources and environmental management plans.</p>

## MATERIALS

<b>OPTION A</b>	<p>The majority of waste generated from the A120 Scheme would be from construction waste. Potential impacts are primarily associated with the production, movement, transport and processing of wastes on and off-site. It is considered that there is adequate waste management capacity in the area.</p> <p>Mitigation measures include maximising reuse of materials, site waste management plans and the use of recycled materials.</p>
<b>OPTION B</b>	<p>The majority of waste generated from the A120 Scheme would be from construction waste. Potential impacts are primarily associated with the production, movement, transport and processing of wastes on and off-site. It is considered that there is adequate waste management capacity in the area.</p> <p>Mitigation measures include maximising reuse of materials, site waste management plans and the use of recycled materials.</p>
<b>OPTION C</b>	<p>The majority of waste generated from the A120 Scheme would be from construction waste. Potential impacts are primarily associated with the production, movement, transport and processing of wastes on and off-site. It is considered that there is adequate waste management capacity in the area.</p> <p>Mitigation measures include maximising reuse of materials, site waste management plans and the use of recycled materials.</p>
<b>OPTION D</b>	<p>The majority of waste generated from the A120 Scheme would be from construction waste. Potential impacts are primarily associated with the production, movement, transport and processing of wastes on and off-site. It is considered that there is adequate waste management capacity in the area.</p> <p>Mitigation measures include maximising reuse of materials, site waste management plans and the use of recycled materials.</p>
<b>OPTION E</b>	<p>The majority of waste generated from the A120 Scheme would be from construction waste. Potential impacts are primarily associated with the production, movement, transport and processing of wastes on and off-site. It is considered that there is adequate waste management capacity in the area.</p> <p>Mitigation measures include maximising reuse of materials, site waste management plans and the use of recycled materials.</p>

## NOISE AND VIBRATION

<b>OPTION A</b>	<p>There may be a reduction in traffic on sections of the existing A120 – resulting in significant noise benefits for those properties and noise important areas located adjacent or in close proximity to the A120.</p> <p>Where the route goes off line, the option will pass through a largely rural area where existing noise levels are relatively low. The introduction of the option may result in an increase in noise level for a number of homes but mitigation measures will be used to reduce effects.</p> <p>There may be temporary noise effects during construction.</p> <p>Effects may be mitigated through design by noise barriers and/or lower noise road surfacing.</p>
<b>OPTION B</b>	<p>There may be a reduction in traffic on sections of the existing A120 – resulting in significant noise benefits for those properties and noise important areas located adjacent or in close proximity to the A120.</p> <p>The option will pass through a largely rural area where existing noise levels are relatively low. The introduction of the option may result in an increase in noise level for a number of homes but mitigation measures will be used to reduce effects.</p> <p>There may be temporary noise effects during construction.</p> <p>Effects may be mitigated through design by noise barriers and/or lower noise road surfacing.</p>
<b>OPTION C</b>	<p>This option may lead to a reduction of traffic on the existing A120, leading to a reduction in noise levels and significant noise benefits for a number of noise important areas and properties.</p> <p>The option will pass through a largely rural area where existing noise levels are relatively low. The introduction of the option may result in an increase in noise level for a number of homes but mitigation measures will be used to reduce effects.</p> <p>There may be temporary noise effects during construction.</p> <p>Effects may be mitigated through design by noise barriers and/or lower noise road surfacing.</p>
<b>OPTION D</b>	<p>There may be a reduction in traffic on sections of the existing A120 – resulting in significant noise benefits for those properties and noise important areas located adjacent or in close proximity to the A120.</p> <p>The option will pass through a largely rural area where existing noise levels are relatively low. The introduction of the option may result in an increase in noise level for a number of homes but mitigation measures will be used to reduce effects.</p> <p>There may be temporary noise effects during construction.</p> <p>Effects may be mitigated through design by noise barriers and/or lower noise road surfacing.</p>
<b>OPTION E</b>	<p>There may be a reduction in traffic on sections of the existing A120 – resulting in significant noise benefits for those properties and noise important areas located adjacent or in close proximity to the A120.</p> <p>The option will pass through a largely rural area where existing noise levels are relatively low. The introduction of the option may result in an increase in noise level for a number of homes but mitigation measures will be used to reduce effects.</p> <p>There may be temporary noise effects during construction.</p> <p>Effects may be mitigated through design by noise barriers and/or lower noise road surfacing.</p>

PEOPLE AND COMMUNITIES		
<b>OPTION A</b>	Beneficial effects associated with creation of construction jobs, use of local services and suppliers, improvements in access, relieving traffic congestion and economic benefits from reduced journey times. This route may also lead to improved connectivity across the existing A120 for cyclists, pedestrian and equestrian users.	<p>There may be temporary disruption during construction to local businesses and temporary disruption to access for business and some schools. Temporary disruption and diversions to cyclists, pedestrian and equestrian users may occur during construction.</p> <p>Good quality agricultural land may be affected.</p> <p>An environmental management plan would be developed to minimise temporary disruption during construction. Land take would be minimised where possible.</p>
<b>OPTION B</b>	Beneficial effects associated with creation of construction jobs, use of local services and suppliers, improvements in access, relieving traffic congestion and economic benefits from reduced journey times.	<p>There may be temporary disruption during construction to local businesses and temporary disruption to access for business and some schools. Temporary disruption and diversions to cyclists, pedestrian and equestrian users may occur during construction.</p> <p>Good quality agricultural land may be affected.</p> <p>An environmental management plan would be developed to minimise temporary disruption during construction. Land take would be minimised where possible.</p>
<b>OPTION C</b>	Beneficial effects associated with creation of construction jobs, use of local services and suppliers, improvements in access, relieving traffic congestion and economic benefits from reduced journey times.	<p>There may be temporary disruption during construction to local businesses and temporary disruption to access for business and some schools. Temporary disruption and diversions to cyclists, pedestrian and equestrian users may occur during construction.</p> <p>Good quality agricultural land may be affected.</p> <p>Two areas of common land may be affected.</p> <p>An environmental management plan would be developed to minimise temporary disruption during construction. Land take would be minimised where possible.</p>
<b>OPTION D</b>	Beneficial effects associated with creation of construction jobs, use of local services and suppliers, improvements in access, relieving traffic congestion and economic benefits from reduced journey times.	<p>Temporary disruption during construction and diversions to cyclists, pedestrian and equestrian users. There may be temporary disruption to local businesses and temporary disruption to access for business and some schools may occur during construction.</p> <p>Good quality agricultural land may be affected.</p> <p>An environmental management plan would be developed to minimise temporary disruption during construction. Land take would be minimised where possible.</p>
<b>OPTION E</b>	Beneficial effects associated with creation of construction jobs, use of local services and suppliers, improvements in access, relieving traffic congestion and economic benefits from reduced journey times.	<p>Temporary disruption during construction and diversions to cyclists, pedestrian and equestrian users. There may be temporary disruption to local businesses and temporary disruption to access for business and some schools may occur during construction.</p> <p>Good quality agricultural land may be affected.</p> <p>Two areas of common land may be affected.</p> <p>An environmental management plan would be developed to minimise temporary disruption during construction. Land take would be minimised where possible.</p>



## ROAD DRAINAGE AND WATER ENVIRONMENT

<b>OPTION A</b>	<p>Opportunities will be sought to reduce existing levels of flood risk in the vicinity of the scheme.</p> <p>The option crosses the River Blackwater and Robin's Brook. Existing crossings will be used where possible. Crossings of watercourses will be designed to reduce flood risk, maintain flows and prevent the release of excess sediments into the watercourses.</p> <p>Effects can be mitigated through careful crossing design and appropriate water management structures.</p>
<b>OPTION B</b>	<p>Opportunities will be sought to reduce existing levels of flood risk in the vicinity of the scheme.</p> <p>The option crosses the River Blackwater and several watercourses. Crossings of watercourses will be designed to reduce flood risk, maintain flows and prevent the release of excess sediments into the watercourses.</p> <p>Effects can be mitigated through careful crossing design and appropriate water management structures.</p>
<b>OPTION C</b>	<p>Opportunities will be sought to reduce existing levels of flood risk in the vicinity of the scheme.</p> <p>The option crosses two main rivers, River Brain, Blackwater, and several watercourses. Crossings of watercourses will be appropriately designed to reduce flood risk, maintain flows and prevent the release of excess sediments into the watercourses.</p> <p>Effects can be mitigated through careful crossing design and appropriate water management structures.</p>
<b>OPTION D</b>	<p>Opportunities will be sought to reduce existing levels of flood risk in the vicinity of the scheme.</p> <p>The option crosses several watercourses. Crossings of watercourses will be designed to reduce flood risk, maintain flows and prevent the release of excess sediments into the watercourses.</p> <p>Effects can be mitigated through careful crossing design and appropriate water management structures.</p>
<b>OPTION E</b>	<p>Opportunities will be sought to reduce existing levels of flood risk in the vicinity of the scheme.</p> <p>The option crosses the River Brain and several watercourses. Crossings of watercourses will be designed to reduce flood risk, maintain flows and prevent the release of excess sediments into the watercourses.</p> <p>Effects can be mitigated through careful crossing design and appropriate water management structures.</p>



# 8. TRAFFIC MODELLING

To predict where future delays and congestion are likely to occur on our road network, we produce computerised traffic models. In the UK traffic modelling follows guidance set out by the Department for Transport.

For the A120, Braintree to A12 study we have developed a local traffic model using the industry standard program SATURN.

The A120 traffic model is designed to forecast traffic in an opening year of 2026 and in 2041.

Traffic growth forecasts have been derived from modelling carried out by Highways England. These forecasts are based on the Government's National Transport and Trip End Models, which rely on data from local authority monitoring reports and forecasts for housing delivery. Figure 5 below shows the information used to create the local traffic model and the data used for forecasting.

Based on the traffic model results, the new A120 scheme would carry around 43,000 vehicles per day in 2026, with average peak hour journey time savings

of 8 to 12 minutes between the A131 and A12 Junction 26.

Without the scheme in place, the existing A120 between Braintree and Marks Tey would be constrained to around 29,000 vehicles per day, due to the congested nature of the road. The vast majority of the 14,000 trips not able to use the A120 would still take place on the network, but they would be on other roads – in particular local minor roads and 'rat-run' routes.

Significant traffic reductions are therefore expected in key settlements such as Bradwell, Kelvedon, Coggeshall and Silver End as a result of the new A120 scheme.

Figure 6 shows the average peak hour traffic flow changes on key roads within the study area.

Figure 7 shows the predicted average peak hour journey time savings on three key roads within the study area.

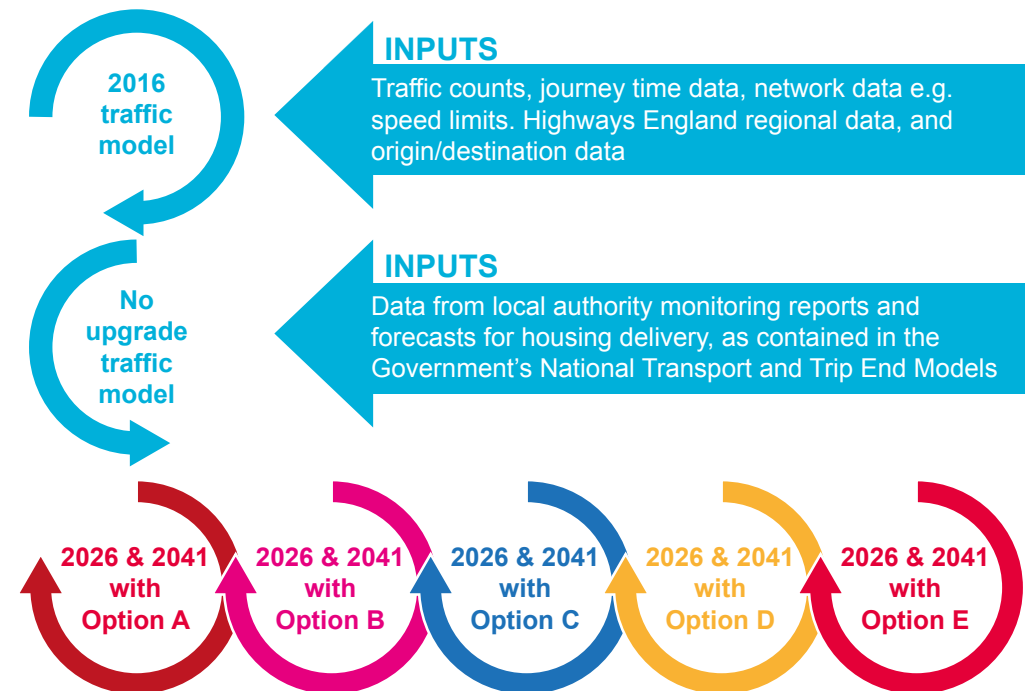
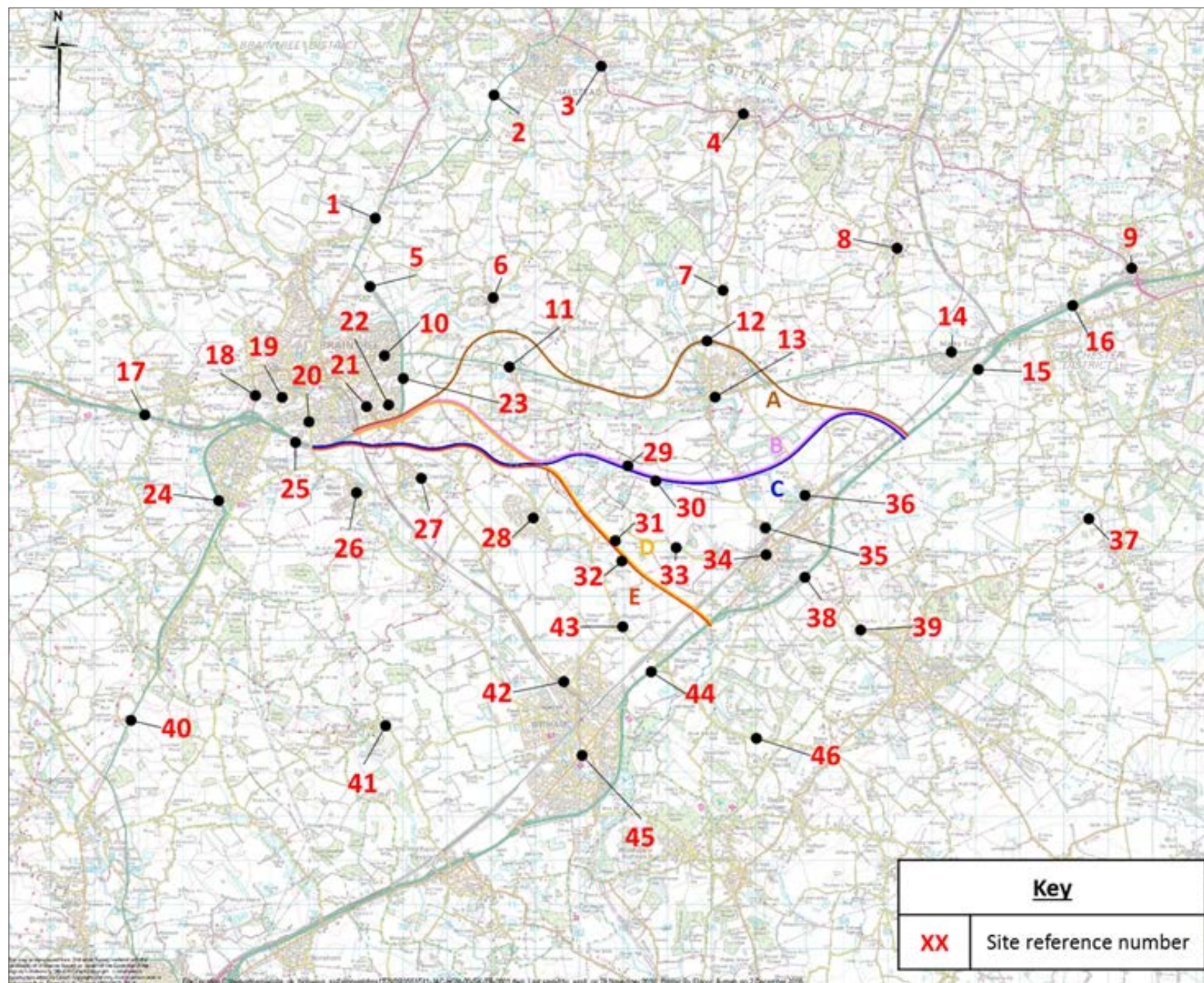


Figure 5

## Location of predicted traffic flow changes in 2026 opening year

Figure 6





## Predicted traffic flow changes in 2026 opening year

SITE REF	LOCATION	Flow in 2026 without our scheme Average Peak Hour 2-way Flow (Vehs)	Change in Average Peak Hour Traffic in 2026 as a result of Scheme Option (Percentage Change)				
			A	B	C	D	E
1	A131 (north of Braintree)	2256	+5	+4	+4	+6	+5
2	A131 (just south of Halstead)	1351	+3	+2	+2	+5	+4
3	A1124 (Colchester Road, Halstead)	1345	-6	-6	-6	-8	-7
4	A1124 (High Street, Earls Colne)	1207	-1	-10	-10	-8	-8
5	A131 (north of Marks Farm roundabout)	1320	+13	+11	+9	+17	+16
6	Stisted (Back Lane)	145	-23	+9	+11	-31	-27
7	Coggeshall (B1024, Colne Road)	469	-4	+2	0	-2	-2
8	Great Tey (Chappel Road)	456	-45	-54	-51	-42	-41
9	Eight Ash Green (Halstead Road)	1978	-22	-18	-17	-15	-14
10	Braintree (Coggeshall Road)	951	-6	-6	-8	-1	-3
11	Bradwell (A120)	2039	-64	-65	-64	-57	-55
12	Coggeshall (A120)	1464	+146	-65	-64	-45	-46
13	Coggeshall (East Street)	518	-57	-78	-78	-78	-78
14	Marks Tey (A120)	2066	-45	-28	-26	-18	-19
15	A12 (Between junction 24 and 25)	7611	+29	+24	+24	+13	+13
16	A12 (Between junction 25 and 26)	8704	+13	+11	+11	+5	+5
17	Rayne (A120)	4008	+18	+16	+18	+10	+12
18	Braintree (Pods Brook Road)	1439	+6	+6	+6	+5	+5
19	Braintree (London Road)	1344	+8	+5	+5	+6	+7
20	Braintree (Notley Road)	796	-21	-20	-21	-32	-30
21	B1018 (Millennium Way, Braintree)	829	+57	+53	+17	+48	+15
22	Braintree (Cressing Road)	650	-28	-18	+16	-13	+12
23	A120 (south of Marks Farm roundabout)	2932	-39	-20	-21	-16	-16

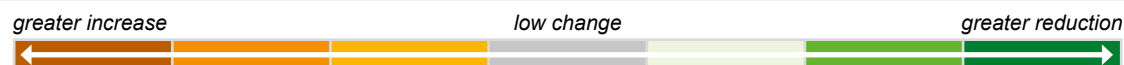


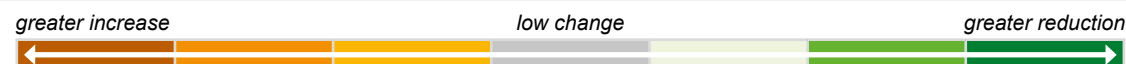
Figure 6 (cont.)

## Predicted traffic flow changes in 2026 opening year

SITE REF	LOCATION	Flow in 2026 without our scheme Average Peak Hour 2-way Flow (Vehs)	Change in Average Peak Hour Traffic in 2026 as a result of Scheme Option (Percentage Change)				
			A	B	C	D	E
24	A131 (just west of Great Notley)	1333	+10	+12	+14	+4	+6
25	A120 (just east of Great Notley)	3476	+45	+43	+37	+30	+37
26	Black Notley (Witham Road)	819	-25	-24	-36	-32	-40
27	B1018 (Braintree Road, Cressing)	1484	-28	-27	-4	-35	-18
28	Silver End (Boars Tye Road)	697	-53	-40	-44	-73	-71
29	New A120 Link (Option B)	N/A	N/A	+111*	N/A	N/A	N/A
30	New A120 Link (Option C)	N/A	N/A	N/A	+112*	N/A	N/A
31	New A120 Link (Option D)	N/A	N/A	N/A	N/A	+129*	N/A
32	New A120 Link (Option E)	N/A	N/A	N/A	N/A	N/A	+126*
33	Kelvedon (Church Street)	196	-88	-79	-78	-90	-95
34	Kelvedon (High Street, B1024)	1051	-38	-17	-18	-11	-12
35	Kelvedon (Coggeshall Road, B1024)	389	-5	-5	-8	-29	-24
36	Feering (Coggeshall Road)	646	-63	-43	-44	-47	-46
37	B1022 (Maldon Road, Birch)	302	-4	-4	-4	+5	+8
38	A12 (Between junction 23 and 24)	6428	-3	-9	-9	+25	+25
39	B1023 (Tiptree)	530	+3	+6	+6	0	0
40	A131 (north of Chelmsford)	2341	+2	+5	+5	-5	-4
41	Terling (Hatfield Road)	149	-22	-23	-18	-34	-37
42	B1018 (Cressing Road, Witham)	1473	-2	-2	0	-22	-25
43	Rivenhall (Church Road)	462	-54	-39	-42	-69	-69
44	A12 (Between junction 22 and 23)	6507	-3	-6	-6	+4	+4
45	B1389 (Hatfield Road, Witham)	1044	+2	+3	+3	-6	-7
46	Great Braxted (Braxted Park Road)	731	-8	-9	-10	+7	+6

\* Compared with flow at Site Ref 12 with no scheme.

Figure 6 (cont.)



## Predicted journey time changes in 2026 opening year

ROUTE	DIRECTION	AVERAGE PEAK HOUR	JOURNEY TIME IN 2026 WITH NO SCHEME (MIN:SEC)	Journey time change with scheme option in place									
				Option A		Option B		Option C		Option D		Option E	
				min:sec	%	min:sec	%	min:sec	%	min:sec	%	min:sec	%
<b>Existing A120</b>  West of Braintree (B1256/B1417 Junction) – Marks Tey (A12 Junction 25, eastern end of slip roads)	Eastbound	AM	22:40	-04:00	-18%	-04:20	-19%	-04:20	-19%	-04:10	-18%	-04:10	-18%
		IP	23:30	-04:40	-20%	-05:10	-22%	-05:10	-22%	-05:00	-21%	-05:00	-21%
		PM	27:40	-08:00	-29%	-08:20	-30%	-08:20	-30%	-08:00	-29%	-08:00	-29%
	Westbound	AM	27:10	-05:50	-21%	-05:30	-20%	-05:40	-21%	-04:40	-17%	-04:50	-18%
		IP	24:00	-04:20	-18%	-04:20	-18%	-04:30	-19%	-04:00	-17%	-04:20	-18%
		PM	23:40	-03:50	-16%	-03:40	-15%	-04:00	-17%	-03:30	-15%	-03:40	-15%
<b>New A120</b>  West of Braintree (B1256/B1417 Junction) – Marks Tey (A12 Junction 25, eastern end of slip roads)	Eastbound	AM	-	-08:40	-38%	-09:30	-42%	-09:40	-43%	-07:20	-32%	-07:40	-34%
		IP	-	-09:20	-40%	-10:10	-43%	-10:20	-44%	-08:10	-35%	-08:20	-35%
		PM	-	-12:40	-46%	-13:30	-49%	-13:40	-49%	-11:00	-40%	-11:10	-40%
	Westbound	AM	-	-10:40	-39%	-11:50	-44%	-12:10	-45%	-09:50	-36%	-10:10	-37%
		IP	-	-09:00	-38%	-09:40	-40%	-10:00	-42%	-08:00	-33%	-08:20	-35%
		PM	-	-08:30	-36%	-09:20	-39%	-09:40	-41%	-07:40	-32%	-08:00	-34%
<b>A12</b>  Hatfield Peverel (Junction 20B) – Stanway (Junction 26)	Northbound	AM	12:20	00:00	0%	-00:10	-1%	-00:10	-1%	+00:20	+3%	+00:20	+3%
		IP	12:20	00:00	0%	00:00	0%	00:00	0%	+00:20	+3%	+00:30	+4%
		PM	13:20	00:00	0%	-00:10	-1%	-00:10	-1%	+00:30	+4%	+00:40	+5%
	Southbound	AM	13:10	00:00	0%	00:00	0%	00:00	0%	+00:30	+4%	+00:30	+4%
		IP	11:50	00:00	0%	+00:10	+1%	+00:10	+1%	+00:30	+4%	+00:30	+4%
		PM	11:50	00:00	0%	+00:10	+1%	00:00	0%	+00:20	+3%	+00:20	+3%

Figure 7



## 9. JUNCTION DESIGN AND OPTIONS

The purpose of this consultation is to pick an overall route for the new A120. For this reason only indicative junction locations have been developed.

Given the high standard of road proposed for the new A120 in line with national highways standards all of the new junctions would be grade separated, that is that the main route (the A120 except for the A12 junction) would run through without interruption with slip roads leading to a junction with other roads either above or below the main road with bridges to suit this.

Following the consultation a single route will be selected and then the number and location of junctions along with local road connections will be developed. There will be further engagement and consultation on these issues before a planning application is submitted.

In the meantime, this consultation provides us with the opportunity to seek views on the number and location of junctions.

It is important to note that whilst in order to undertake the traffic and environmental studies to date assumptions have had to be made regarding junctions but these are not fixed at this stage of the design.

### A120/A12 connection

For route options A, B and C there is the opportunity for the A120/A12 junction to be located in a 1.5km corridor on the A12 north east of Kelvedon. This corridor is highlighted in yellow in Figure 8.

The location currently shown is approximately equal distance between the current A12 Junctions 24 and 25.

The connection cannot be further north, closer to Marks Tey, as there would be insufficient space to allow traffic to move safely when joining and leaving the A120. This is known as 'weaving' traffic.

The junction could be located nearer to Kelvedon, this may allow greater connectivity to the local road network and redirect traffic onto the strategic road network in a more efficient way. This may move traffic away from less suitable roads and local villages.

This might mean that rather than being an additional junction on the A12, the new A120 junction would be combined with a re-built Kelvedon North junction (Junction 24). The exact location and junction details would need to take into account traffic management and safety.

We are encouraging you to give us your views where this junction should be located, or what you wish to be achieved with the placement of this junction.

The current work on the A12 will also determine any improvements to the current A12 junctions. This may ultimately have an impact on the selection of the exact A120/A12 connection point. Again as both projects move forward we will continue to work together to achieve coordinated junction solutions.

Figure 8: Map of 1.5km corridor where the A120/A12 junction could be located for options A, B and C.

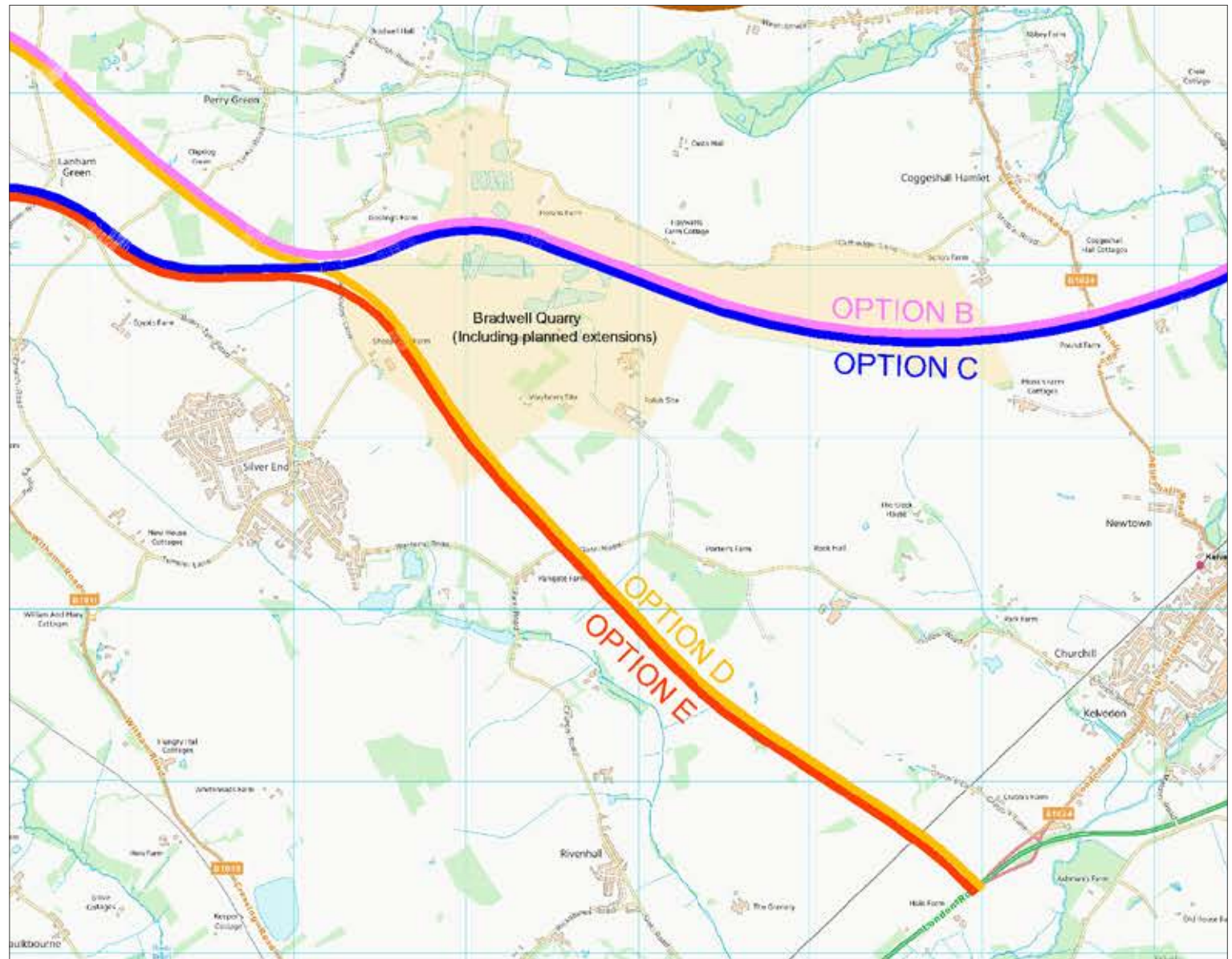




## Intermediate junctions

The design standards set by Highways England for high standard dual carriageways discourage additional junctions for businesses or local connections. However, we do have the opportunity to discuss the need for additional intermediary junctions for routes B,C,D and E. For example, from our engagement with Parish Councils and Braintree District Council we are aware that there is interest in heavy good vehicles being moved off local roads at the earliest opportunity. Such vehicles are used by Bradwell Quarry and will be, in the future, from the Integrated Waste Management Facility.

We are asking for your views about the need for any additional junctions, where these should be located, or what you wish to be achieved with the placement of this additional junction





# 10. LOCAL ROAD, CYCLIST, PEDESTRIAN AND HORSE RIDER NETWORKS

There are many local roads, property accesses, Public Rights of Way and facilities for cyclist, pedestrians and horse riders that might be affected by the proposed A120 improvement.

In 2016 a number of workshops with cyclists, pedestrian and horse-riders representative groups were held to make sure the project team have had a firm understanding of local issues. This work has helped the project team develop the scheme objectives.

At this stage, when we are still choosing a single route, detailed solutions and improvements to these roads, access and facilities have not been developed. This work is completed on all major road schemes following the selection of a single route. Currently the technical work has progressed far enough to allow for estimated construction costs to be included in the total cost of each option.

Below is a summary of the what is likely to happen when an improved A120 is built.

- It is likely that local roads and Public Rights of Way would be maintained and realigned, for example with bridges over the new A120.
- In some cases, improved facilities would be provided to tie into local strategies and plans, such as the quarry restoration plan which has been agreed by Essex County Council.
- In some instances, where crossings are close together it might be more effective to combine facilities; in other places studies may show additional facilities or routes would be beneficial.

Once a route option has been selected we will continue our engagement with representative and user groups, organisations and communities to help us develop a comprehensive set of proposals. By the time a planning application is submitted detailed information will be available.





# 11. ECONOMIC CASE

## Economics

The economic impact of the new A120 scheme has been assessed in accordance with Department for Transport (DfT) guidance. This has included the assessment of transport user benefits resulting from travel time savings and changes in vehicle operating costs, as well as changes in indirect tax revenues, greenhouse gases and accident costs. Figure 9 below shows the relative benefits of the scheme options.

The estimated costs of the five scheme options are presented in Figure 10 below. They are expressed as current day prices (excluding VAT).

The Benefit Cost Ratio (BCR) of a scheme helps show if it provides value for money. How to calculate the BCR is set by the Department for Transport. This process allows for the inclusion of economic benefits from expected growth in business profitability as a result of the road improvement. When this is included it is called the adjusted Benefit Cost Ratio.

The adjusted BCR of each option falls with the range 1.5 to 2.0, which is rated as a 'Medium' value for money.

Once the scheme is confirmed it is anticipated that BCR values will increase as more information is gathered and more benefits are quantified.

## Contribution to the regional economy.

We can also estimate how much new business (goods and services), jobs and development would be unlocked by improving the A120. This is called Gross Value Added (GVA).

It provides a wider economic view than that presented in the traditional BCR calculation.

The GVA benefit of the scheme would amount to around £1.1 billion at 2016 prices.

Figure 10

Cost at 1st Quarter 2016 prices	Scheme Cost Estimate (£ million) (Construction, land, preparation, supervision and risk)				
	OPTION A	OPTION B	OPTION C	OPTION D	OPTION E
	605	725	825	475	570

## Present value of benefits

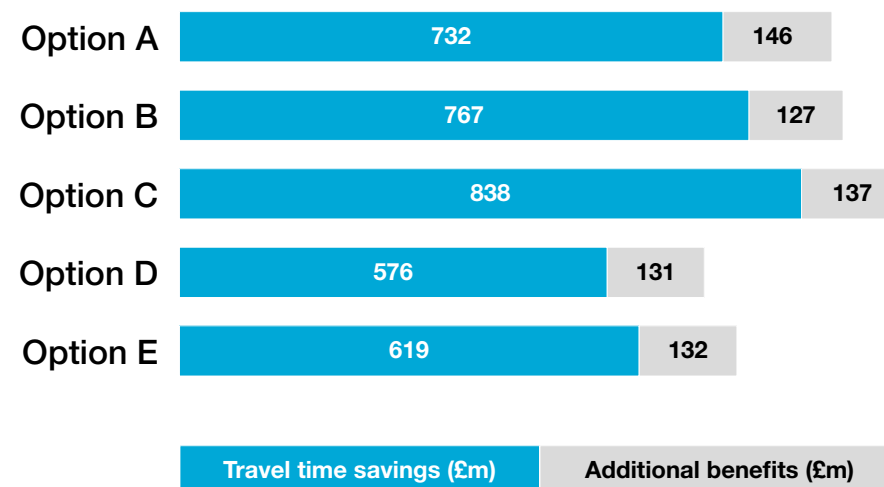


Figure 9

# 12. NEXT STEPS

## Autumn 2015

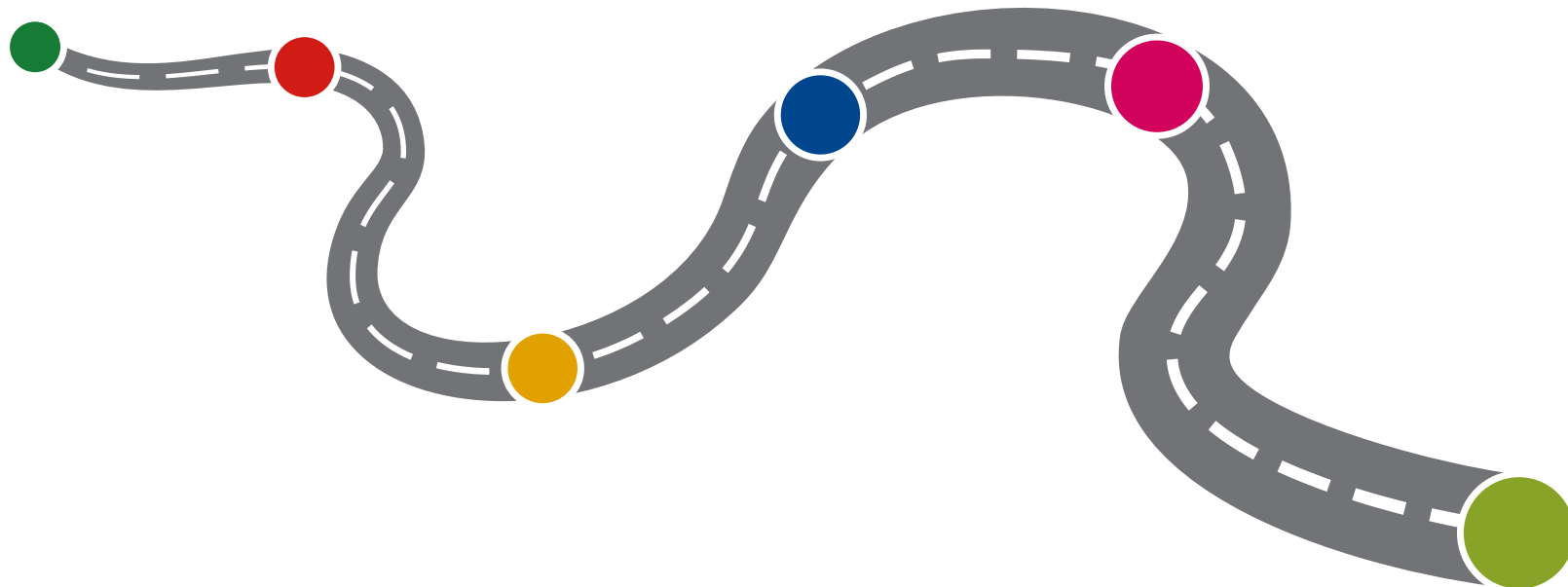
Options development – reviewing previous work, future demand modelling, analysis of issues on the current A120 alignment and creating a long list of options.

## January – March 2017

Public consultation on route options. Events between 30th January and 25th February.

## April – August 2017

Analysis and responding to consultation – analysing all consultation responses and reviewing issues raised.



## Spring 2016

Complete analysis of long list of options.

## Summer 2016

Next stage of technical work to develop a shortlist of route options for public consultation.

## Autumn 2017

Essex County Council will make a recommendation for a preferred option to the Secretary of State for Transport and Highways.

# 13. INFORMATION EVENTS

To support this consultation we will be holding 11 information events. Some of these events will be held with Highways England A12 consultation. The table below provides further information:

LOCATION	DATE	TIME	ADDRESS
Bradwell	<b>Monday 30th January</b>	1pm – 8pm	Bradwell Village Hall, Church Road, Bradwell, Braintree CM77 8EP
Silver End	<b>Thursday 2nd February</b>	1pm – 8pm	Silver End Village Hall, Broadway, Silver End, Witham CM8 3RQ
Rivenhall	<b>Monday 6th February</b>	1pm – 8pm	Rivenhall Hotel, Rivenhall End, Witham, CM8 3HB
Marks Tey	<b>Tuesday 7th February</b>	1pm – 8pm	Marks Tey Parish Hall, Old London Rd, Colchester, CO6 1EJ
Colchester	<b>Friday 10th February</b>	1pm – 8pm	Charter Hall, Colchester Leisure World, Cowdray Ave, Colchester, CO1 1YH
Witham	<b>Saturday 11th February</b>	11am – 5pm	Spring Lodge Centre, Powershall End, Witham, CM8 2HE
Feering/Kelvedon	<b>Tuesday 14th February</b>	1pm – 8pm	Feering Community Centre, Coggeshall Rd, Feering, Colchester, CO5 9QB
Chelmsford	<b>Wednesday 15th February</b>	1pm – 8pm	Civic Centre, Duke Street, Chelmsford, CM1 1JE
Braintree	<b>Saturday 18th February</b>	11am – 5pm	Alec Hunter Academy, Stubbs Lane, Braintree CM7 3NR
Cressing	<b>Wednesday 22nd February</b>	1pm – 8pm	Cressing Sports and Social Club, Jeffrey's Rd, Braintree, CM77 8JQ
Coggeshall	<b>Saturday 25th February</b>	11am – 5pm	Coggeshall Village Hall, Stoneham Street, Coggeshall CO6 1UH





# 14. HOW TO RESPOND

Please only respond using one of the following channels, which have been set up for the specific purpose of this consultation:

**Online:** [www.a120essex.co.uk](http://www.a120essex.co.uk)

**Email:** you can email your response to: [a120study@jacobs.com](mailto:a120study@jacobs.com)

**Post:** you can post your response and additional material to the following address (please note the address is case sensitive):

**FREEPOST A120 BRAINTREE TO THE A12**

You can find a response form online at [www.a120essex.co.uk](http://www.a120essex.co.uk) and at the back of this document

We cannot accept responsibility for ensuring responses that are sent to addresses other than those described above are included in the consultation process. All responses must include at least your name and postcode.

When responding, please state whether you are responding as an individual or representing the views of an organisation. If responding on behalf of an organisation, please make it clear whom the organisation represents and, where applicable, how the views of members were assembled.

# 15. CONSULTATION QUESTIONNAIRE

You can complete this questionnaire online at [www.a120essex.co.uk](http://www.a120essex.co.uk)

**Question 1) Please provide your name: (Required)**

Title: ..... First Name: ..... Last Name: .....

**Question 2) Please tell us your postcode: (Required)** .....

**Question 3) Please provide an email address:** .....

**Question 4) Are you completing this questionnaire on behalf of:**

*Select one box*

- ☐ Yourself (as an individual)
- ☐ A friend or relative (Please answer using their details)
- ☐ A District/Town/Parish Council
- ☐ A Voluntary or Community Sector Organisation (VCS)
- ☐ A Business
- ☐ Other, please specify opposite:

*If you are responding on behalf of an organisation, please tell us:*

The name of the organisation: .....

Who the organisation represents:.....

.....

Where applicable, how the views of members were assembled: .....

.....





**Question 5:) Which of the following statements best reflects your opinion: *Select one box***

- ☐ **A.** I believe the A120 needs to be completely upgraded to a dual carriageway between Braintree and the A12 in order to meet current and future demand.
- ☐ **B.** I believe only some changes are required to the existing A120 between Braintree and the A12 to meet current and future demand
- ☐ **C.** I do not believe anything should be done to the A120 between Braintree and the A12 to meet current and future demand, other than normal maintenance

**Question 6)**

**When thinking about your current experiences of the A120 between Braintree and the A12, to what extent do you agree/disagree with the following statements? *Select one box for each***

**6a** I would like to see the A120 upgraded to reduce queuing at junctions

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree
- ☐ No opinion

**6b** I would like to see the A120 upgraded to improve pedestrian/cycling/equestrian facilities

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree
- ☐ No opinion

**6c** I would like to see the A120 upgraded to improve journey times

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree
- ☐ No opinion

**6d** I would like to see the A120 upgraded to reduce HGVs need to travel through villages

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree
- ☐ No opinion

**6e** I would like to see the A120 upgraded to a dual carriageway

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree
- ☐ No opinion



**Question 7)**

Five routes options, A, B, C, D and E have been presented as part of this consultation. Please tell us your preferences for the five options below. You can also provide comments about the route options below. You may select one preference, or rank these in order of preference. *Please rank your preferred option, with 1 being you most preferred, and 5 being your least preferred*

**Your Rank (1-5)**

Option A

Option B

Option C

Option D

Option E

I am not in favour of any of these options ☐

*Please provide us with comments you have about any of the routes:*

Option A .....  
.....

Option B .....  
.....

Option C .....  
.....

Option D .....  
.....

Option E .....  
.....



**Question 8) Do you have any other comments or suggestions about a preferred route for the A120 between Braintree and the A12?**

.....

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**Question 9) Do you have any comments or suggestions about potential locations for junctions?**

.....

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.....



## About you

*In order to ensure the continued development of our Diversity and Equality practices, everyone that we work with is asked to complete the information below. You are not obliged to answer any of the questions, but the more information you supply, the more effective our monitoring will be. If you choose not to answer questions, it will not affect your participation. The information you supply below is confidential and will be used solely for monitoring purposes and anonymously in the reporting of the results of this consultation.*

### 10) Age:

- ☐ 16 - 20
- ☐ 21 - 30
- ☐ 31 - 40
- ☐ 41 - 50
- ☐ 51 - 60
- ☐ 61 - 70
- ☐ 71 - 80
- ☐ 81 - 90
- ☐ 91 or over
- ☐ Prefer not to say

### 11) Gender:

- ☐ Male
- ☐ Female
- ☐ Prefer not to say

### 12) Is your gender identity the same gender that you were assigned to at birth?

- ☐ Yes
- ☐ No
- ☐ Prefer not to say

### 13) Status:

- ☐ Single
- ☐ Married
- ☐ Widowed
- ☐ Prefer not to say
- ☐ Other (please state)

### 14) Sexual Orientation:

- ☐ Heterosexual
- ☐ Gay
- ☐ Lesbian
- ☐ Bisexual
- ☐ Prefer not to say
- ☐ Other (please state)

### 15) Religion/Faith:

- ☐ Christian
- ☐ Muslim
- ☐ Hindu
- ☐ Buddhist
- ☐ Sikh
- ☐ Jewish
- ☐ None
- ☐ Not sure
- ☐ Prefer not to say
- ☐ Other (please state)





**16) Ethnicity:**

- ☐ White
  - ☐ English/Welsh/Scottish/Northern Irish/British
  - ☐ Irish
  - ☐ Irish Gypsy or Irish Traveller
  - ☐ Any other White background
- ☐ Mixed/multiple ethnic groups
  - ☐ White and Black Caribbean
  - ☐ White and Black African
  - ☐ White and Asian
  - ☐ Any other Mixed/multiple ethnic background
- ☐ Asian/Asian British
  - ☐ Indian
  - ☐ Pakistani
  - ☐ Bangladeshi
  - ☐ Chinese
  - ☐ Any other Asian background
- ☐ Black/African/Caribbean/Black British
  - ☐ African
  - ☐ Caribbean
  - ☐ Any other Black /African/ Caribbean background
- ☐ Other ethnic group
- ☐ Prefer not to say

**17) Do you consider yourself to have a physical, sensory impairment, learning difficulty or disability or mental health needs?**

- ☐ Yes
- ☐ No
- ☐ Prefer not to say

**18) Are you currently caring for someone?**

- ☐ Yes
- ☐ No
- ☐ Prefer not to say

**19) Locality:**

- ☐ Basildon
- ☐ Braintree
- ☐ Brentwood
- ☐ Castle Point
- ☐ Chelmsford
- ☐ Colchester
- ☐ Epping Forest
- ☐ Harlow
- ☐ Maldon
- ☐ Rochford
- ☐ Tendring
- ☐ Uttlesford
- ☐ Other (please state)

**Thank you for taking the time to take part in this consultation.**

**Confidentiality and data protection**

The contact information that you provide will be used to perform internal checks to ensure the validity of responses, such as identifying a duplicate response where responses have been submitted via several routes. We may also use this information to inform respondents of any key updates of the consultation.

Information provided in response to this consultation, including personal information, may be subject to publication or disclosure in accordance with the access to information regimes. These are primarily the Freedom of Information Act 2000 (FOI), the Data Protection Act 1998 and the Environmental Information Regulations 2004.

Under the FOI, there is a statutory Code of Practice with which public authorities must comply and which deals with our confidentiality obligations among other things.



## **This information is issued by**

Essex County Council

## **You can contact us about this scheme in the following ways**

@ a120study@jacobs.com

🌐 [www.a120essex.co.uk](http://www.a120essex.co.uk)

Essex County Council  
County Hall  
Chelmsford  
Essex  
CM1 1QH

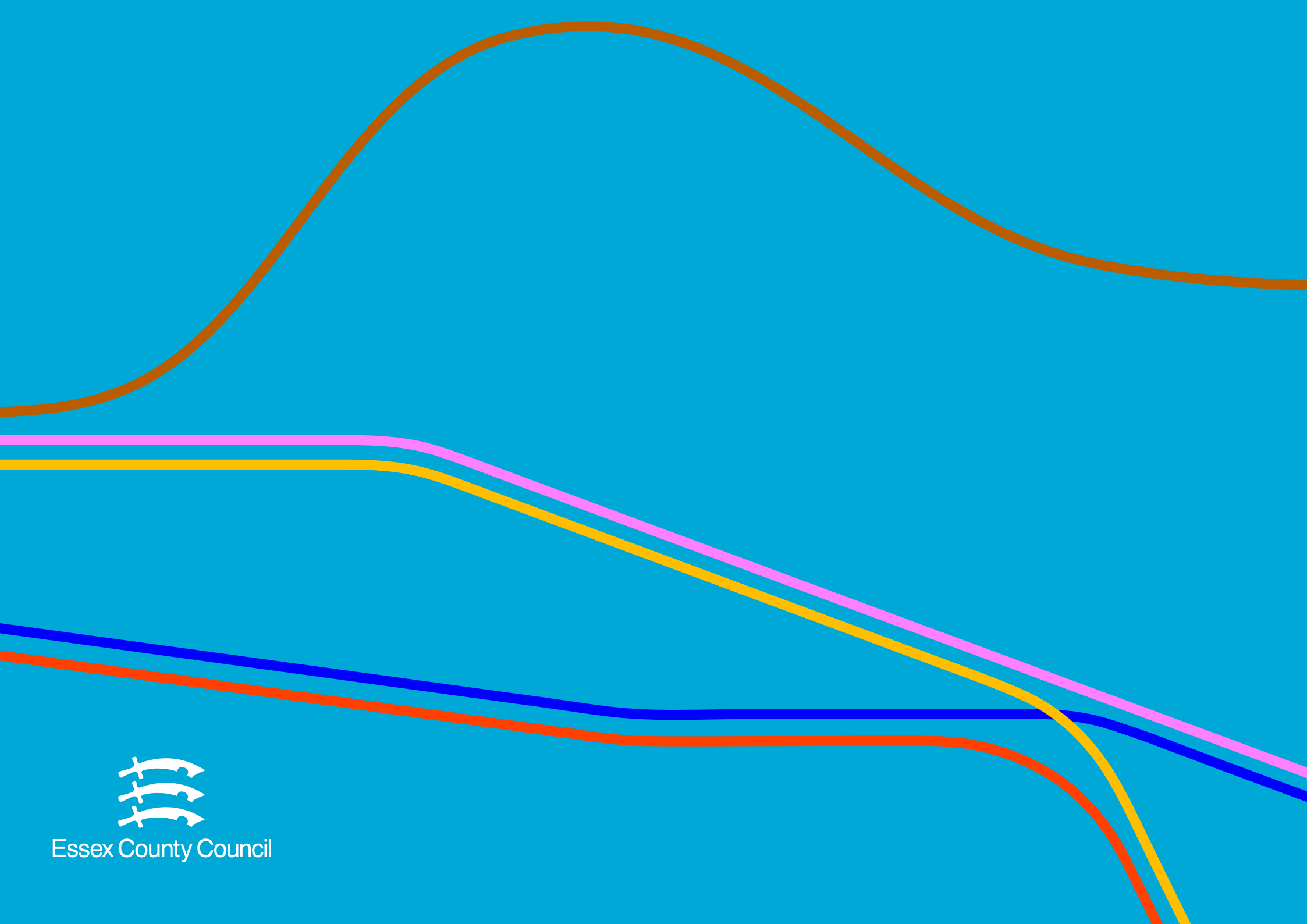
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