

## A303 Stonehenge

Amesbury to Berwick Down

Public Consultation Booklet – January 2017





# Contents

Chapter		Page
1	Foreword	4
2	About Highways England — What we do	5
3	Introduction to the scheme	6
4	What we are proposing	8
5	The need and benefits	10
6	Identifying our proposed option	16
7	Our proposed option	36
8	What our proposals mean for you	47
9	What happens next	49



# 1 Foreword

## Local life, regional growth, national heritage: it's in all our interests



Thank you for taking an interest in our plans to improve the A303 past Stonehenge. It's the first link in a chain of eight road schemes to create an Expressway to the South West. That's our way of saying we're proposing to upgrade the road to dual carriageway standard all the way from London and the South East to the South West.

There's little doubt that improving the quality and safety of journeys to and from the South West will be great news for the local and regional economy. The South West's reputation of being a hard place to get to is hampering its enormous business and tourism potential.

But this project is about more than that. Like all the roads we invest in, the A303 plays a vital role in people's daily life, whether it is on their way to work, school, visiting friends, in an emergency or just having fun. Ask anyone. When nose-to-tail traffic turns a ten minute journey into an hour, it's no fun.

Then there's the knock-on problem of frustrated motorists rat-running through quiet country roads and villages, pollution from idling engines and the increased risk of traffic accidents. As things stand, the single carriageway sections of the A303 are harming communities and the environment in one of the most attractive parts of the UK.

The other big benefit of upgrading this particular bit of road is what can be done for Stonehenge, one of our most treasured and historic landmarks (not to mention a national and international icon right up there with the Pyramids in Egypt). The A303 passes close by and is fully visible from Stonehenge, degrading its setting. We've got a once in a generation chance to change that.

We believe the best way to improve the A303 at Stonehenge is to build a tunnel past the stones, together with a bypass for Winterbourne Stoke. Crucially, and after thorough investigations, we have a scheme which we are confident we can deliver, overcoming the challenges which beset previous tunnel proposals, and which represents value for taxpayers.

This is your time to influence the scheme so please take it. There are still important choices to be made before we submit our plans to the Secretary of State for Transport who will decide the preferred route to be taken forward for further development. This booklet explains how we have arrived at our proposal, where you can find more detail and how you can let us know what you think using our questionnaire.

**Chris Taylor,**

Director for Complex Infrastructure, Highways England

# 2 About Highways England

## What we do

Highways England operates, maintains and improves England's motorways and major A-roads, the strategic road network. Our network totals around 4,300 miles. While this represents only 2% of all roads in England by length, these roads carry a third of all traffic by mileage and two-thirds of all heavy goods traffic.

England's strategic road network forms the economic backbone of the country, is open 24 hours a day, seven days a week, and is relied on by communities and businesses to get from A to B.

Our ambition is to ensure all our major roads are more dependable, durable and, most importantly, safe. In pursuit of that aim, we are delivering £15 billion of investment on our network as described in the Government's Road Investment Strategy (RIS).

The A303 Stonehenge scheme is part of the programme of investment set out in the RIS.



# 3 Introduction to the scheme

The A303 is part of the most direct main route between the South East and the South West. Tens of thousands of people use the road every day, including tourists on their way to some of the nation's favourite holiday destinations.

But for now the road is not great at getting people from A to B. It is regularly congested and is frustrating for motorists who try to avoid tailbacks by diverting onto local roads. This makes life hard for local communities too.

The aim is to transform the route into an Expressway, a new type of strategic road which is as safe and reliable as a motorway and where mile-a-minute journeys are the norm.

In its Road Investment Strategy (RIS), the Government has identified eight separate sections of road along the A303 and A358 to Taunton where upgrades are needed, and has made funding available for

the first three to get under way. This booklet is about our first public consultation on one of these schemes, the A303 Stonehenge scheme between Amesbury and Berwick Down, which currently runs through the Stonehenge, Avebury and Associated Sites World Heritage Site, past Stonehenge and through the village of Winterbourne Stoke.

The information we get from this public consultation will help us develop more detailed proposals which we will consult upon again later this year. Our final plans will then be scrutinised in public by the Planning Inspectorate, with the Secretary of State for Transport having the final say, which is expected by late 2019. Construction is anticipated to start on site in March 2020.

This is your opportunity to give us your views on our early proposals. In this booklet you will find a summary of our proposals, how we chose them and how to make your views known.

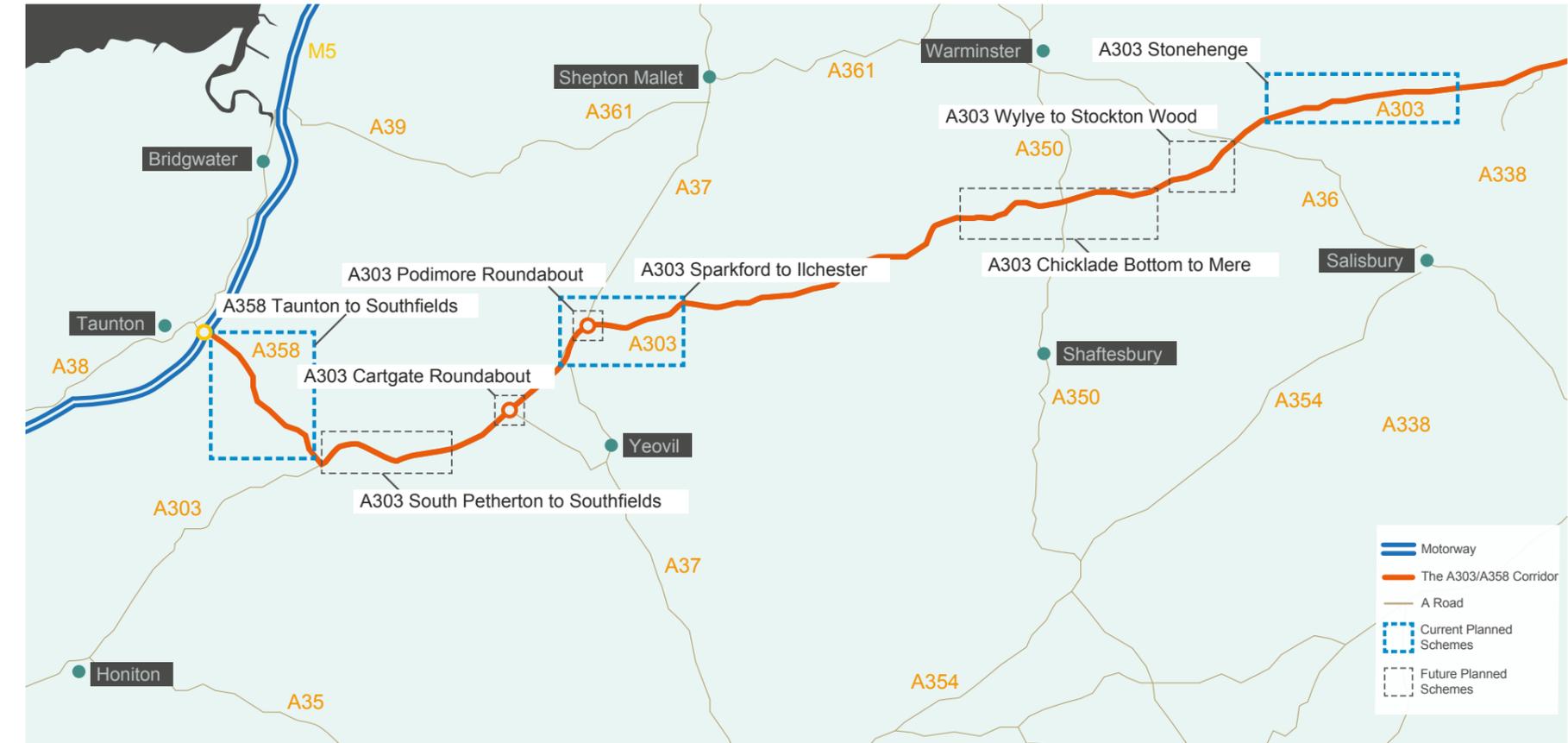


Figure 1: A303/A358 Corridor schemes

## More information

For more information about the A303/A358 Corridor and this scheme's place within it please refer to our documents *Creating an Expressway to the South West: The case for the A303/A358 Corridor*, and the *A303 Stonehenge: Amesbury to Berwick Down, The case for the scheme*. They can be viewed at [www.highways.gov.uk/a303stonehenge/consultation](http://www.highways.gov.uk/a303stonehenge/consultation)

# 4 What we are proposing

Between Amesbury and Berwick Down, we need a free-flowing dual carriageway to replace the current single carriageway section which runs past Stonehenge and through the village of Winterbourne Stoke.

Our proposed solution is to build a 1.8 mile (2.9 kilometre) tunnel under the World Heritage Site (WHS), a bypass for Winterbourne Stoke and improve the existing junctions between the A303 and the intersecting A345 and A360. We would now like to know what you think about our initial proposals.

As well as easing congestion, improving life for local communities and reducing the risk of accidents, we believe our proposals will improve the setting of Stonehenge and other important monuments within the WHS.

As we develop our proposals, we need to address some complex and difficult issues which have been stumbling blocks in the past. The good news is that previous attempts to build a road tunnel at Stonehenge have given us lots of information from which we can give ourselves the best possible chance of success this time around.

## More information

Find out more about the main elements of our proposals go to chapter 7

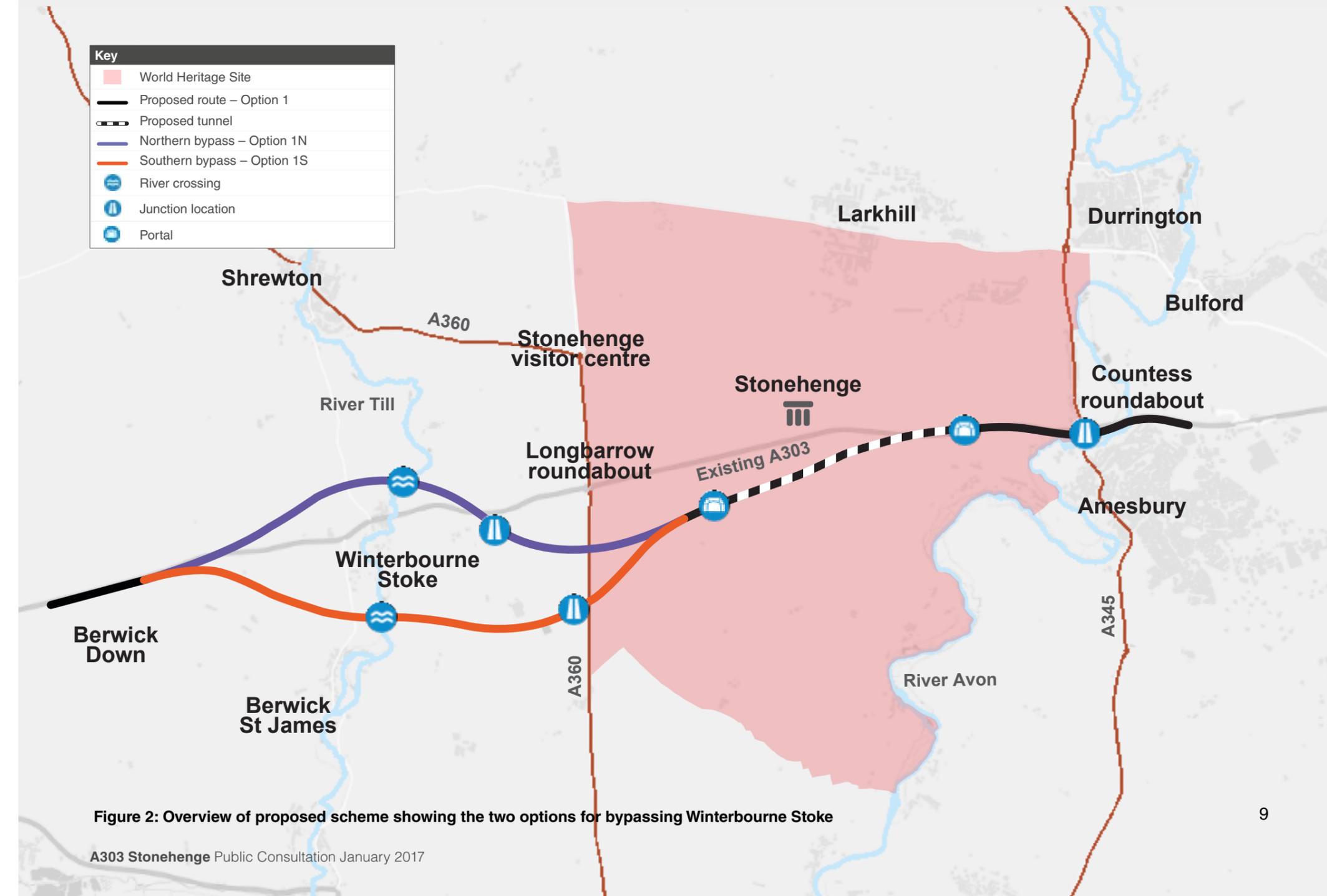


Figure 2: Overview of proposed scheme showing the two options for bypassing Winterbourne Stoke

# 5 The need and benefits

## Transport

The A303 between Amesbury and Berwick Down regularly carries nearly twice as much traffic as it was designed for, and even more in the summer tourist period. The result is severe congestion and delays that affect local communities as well as long distance travellers. Although the Corridor's overall accident rate is not that different to other similar major roads, there is a marked difference when it comes to the single carriageway sections. In these sections accident rates are above the national average for trunk roads.

A modern, dual carriageway, with improved junctions and up-to-date traffic information for drivers would:

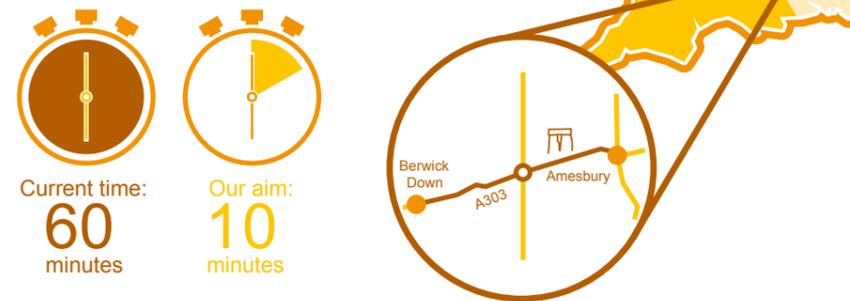
**Improve journey times:** At the height of the tourist season, congestion between Amesbury and Berwick Down means a journey which should take 10 minutes lasts over an hour. Without action, this will get worse. A dual carriageway would reduce average journey times substantially.

**Enhance safety:** In the five years up to 2014, four people died and 11 other accidents resulted in serious injuries. Better traffic flows, with fewer stop-starts will make journeys quicker and drivers much less likely to divert onto local roads. This will reduce driver stress and improve safety on both the A303 and roads through local communities.

**Be more reliable and resilient:** Many businesses report that the current unreliability of journey times on the A303/A358 Corridor is harming business. The section between Amesbury and Berwick Down is one of the worst. More predictable journey times will reduce the inconvenience and cost of unexpected delays. A dual carriageway will also make it easier to manage traffic when incidents do occur.

## Mile-a-minute journeys

During the height of the tourist season, our upgrades aim to reduce average journey times on the section past Stonehenge and through Winterbourne Stoke by 50 minutes.



## Economic growth

Traffic congestion and long journeys make the South West feel like a hard place to get to, and that is putting businesses and visitors off. Traffic delays are particularly bad news for a region which relies heavily on tourism and which is struggling to perform as well as the rest of the UK: economic productivity and wages here are lagging behind. By comparison, business productivity along much of the other main route to the South West, the M4/M5 Corridor, is notably better.

As part of an Expressway, improvements to this section of the A303 will help boost the region's productivity and economic performance by:

**Improving competitiveness and opportunity:** productivity across the South West region is 24% below the national average. More reliable journey times and better connections with other regions will reduce costs and help improve productivity, putting the South West on an equal footing with its neighbours. This means more economic opportunities for local people.

**Boosting access for tourists:** at £4.5 billion, the South West attracts the highest domestic tourism expenditure of any UK region with around 18 million UK visitors a year. Some 29% come by car from London and the South East. Surveys show that most visitors think twice about using roads again if they've had a bad journey in the past. Making it easier for people to get to the South West makes it more likely they will come back, and stay longer when they do.

**Supporting growth:** councils and local enterprise partnerships across the South West predict 120,000 new jobs and 100,000 new homes by 2021, with even more growth after that. Safer and more reliable transport links will meet the needs of a growing residential and working population.

**Helping local businesses:** as already mentioned, many businesses report that the current unreliability of the A303/A358 Corridor is affecting them. The section between Amesbury and Berwick Down is one of the worst for predicting journey times, particularly during peak times. Cutting commuting times will give local businesses better access to their customers and staff and would allow them to grow.



Holiday makers at popular South West attraction the Eden Project

## Cultural heritage

Stonehenge is a national and international icon and stands in a landscape without parallel in the world. Its unique and dense concentration of prehistoric monuments and sites form part of the Stonehenge, Avebury and Associated Sites World Heritage Site (WHS). Around 1.3 million people visited Stonehenge in 2014, making it the most visited paid-for attraction in the South West.

Upgrading the A303 between Amesbury and Berwick Down is a once in a generation chance to improve this unique historic environment by:

**Protecting and enhancing the WHS:** at its closest point, the A303 is just 165 metres from the stone circle and runs through the WHS, cutting it in half. Removing the road – and the sight and noise of traffic – provides the opportunity to reconnect Stonehenge with its surrounding ancient monuments, restore the natural setting and enhance the tranquillity of the monument. This would help achieve the Government’s aim to ‘protect, conserve and transmit to future generations’ the Outstanding Universal Value of the WHS.

**Better access:** the A303 is a difficult road to cross on foot. Surveys show that many visitors do not venture into the southern half of the WHS at the moment. Removing the road would make it much easier for people to explore more of the WHS and discover other important monuments by being able to roam freely and safely between different parts of this unique landscape.

### More information

Find out more about the problems we are trying to address please see our document *A303 Stonehenge: Amesbury to Berwick Down, The case for the scheme* at [www.highways.gov.uk/a303stonehenge/consultation](http://www.highways.gov.uk/a303stonehenge/consultation)

“If it’s done in the right way it could be truly transformational. It would reunite the two parts of the World Heritage Site. It would mean people could explore the World Heritage Site as a whole, and understand what it is really all about, joining the monuments up”.

**Dr Nick Snashall,  
National Trust**

“Our main hope is that Stonehenge is restored to its complete setting within the World Heritage Site so we can protect its Outstanding Universal Value”.

**Heather Sebire,  
English Heritage**

“A well designed solution would remove much of the existing barrier to the Stonehenge landscape that is caused by the A303 and allow visitors to explore the whole of the World Heritage Site”.

**Andrew Vines,  
Historic England**



## Environment and community

The A303 between Amesbury and Berwick Down has a big impact on the nearby built and natural environment. Constant traffic noise and the sight of traffic are out of place in an attractive rural landscape of gentle rolling chalk downland that provides the setting for a historic landscape without parallel.

Immediately to the west, the village of Winterbourne Stoke sits either side of the A303 and has been waiting decades for its bypass. Traffic diverting to avoid congestion on the A303 also leads to significant rat-running problems through nearby villages. Improving the A303 gives us a chance to enhance the environment and leave a positive legacy for communities near the road by:

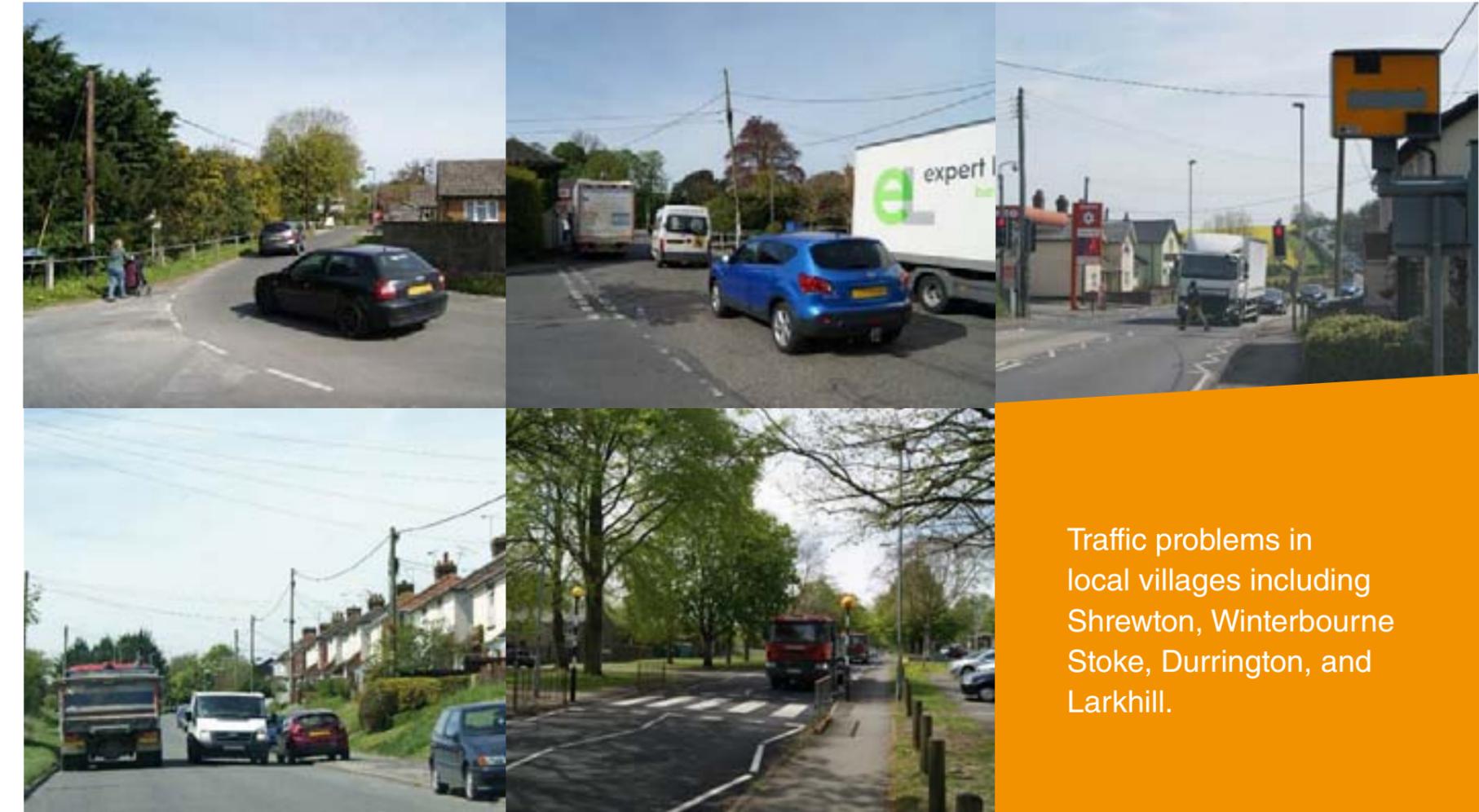
**Easing local congestion:** at weekends during the tourist season, traffic volumes through nearby villages leap by nearly 50% in Larkhill, over 60% in Shrewton and some 20% in Bulford, as motorists try

and find ways of avoiding the congestion on A303. A free-flowing road will reduce the likelihood of rat-running on unsuitable roads. It will shorten journey times and free up the roads for local people and important local and emergency services.

**Improving community life:** high levels of traffic on local roads gives rise to a noisy and polluted environment. Providing Winterbourne Stoke with a bypass will greatly improve the quality of everyday life in the village. Reducing rat-running will do the same in the local communities of Larkhill, Durrington, Bulford and Shrewton. Removing the A303 from part of the World Heritage Site (WHS) would allow permissive footpaths to be opened up, so that residents and visitors can explore more of the WHS than they can at the moment.

**Better road safety:** footpaths can be non-existent on some local roads. In some places for example in Shrewton, pedestrians have no pavements to reach the school or other local facilities. Heavy traffic increases the danger of walking in the road. Improving the A303 will reduce traffic flows through local communities and make it safer for pedestrians, cyclists and other non-motorised road users.

**Enhancing habitats:** as well as the WHS, there are many wildlife habitats in the area between Amesbury and Berwick Down. Removing part of the road from the WHS, gives us the chance to enhance biodiversity and habitats, removing a physical barrier to the spread of flora and fauna.



Traffic problems in local villages including Shrewton, Winterbourne Stoke, Durrington, and Larkhill.

# 6 Identifying our proposed option

The A303's importance as a strategic link to the South West has long been recognised. Despite being upgraded along much of its length, there are places where this is yet to happen.

One of these sections is between Amesbury and Berwick Down, where attempts to improve the road have been going on for more than 25 years.

In December 2014, the Government announced funding to start upgrading sections of the A303/A358 Corridor as part of a long term aim to create an Expressway to the South West. This included funding for a 1.8 mile (2.9 kilometre) tunnel near Stonehenge.

Even though money for a tunnel was included in the Government's 2015 Road Investment Strategy, Highways England has examined all the possible routes before deciding on an initial proposed option on which to consult the public.

## More information

The A303 Stonehenge scheme is part of a wider programme to upgrade the A303/A358 Corridor to dual carriageway. You can find out more by reading our document *Creating an Expressway to the South West: The case for the A303/A358 Corridor* [www.highways.gov.uk/a303stonehenge/consultation](http://www.highways.gov.uk/a303stonehenge/consultation)

## Objectives for the scheme

As part of an Expressway, the scheme between Amesbury and Berwick Down needs to help unlock economic growth in the South West by transforming journey reliability, increasing safety and improving connectivity with neighbouring regions, while protecting or enhancing the environment.

We have set four objectives for the scheme:



Transport

To create a high quality reliable route between the South East and the South West that meets the future needs of traffic.



Economic growth

To enable growth in jobs and housing by providing a free-flowing and reliable connection between the South East and the South West.



Cultural heritage

To help conserve and enhance the World Heritage Site and to make it easier to reach and explore.



Environment and community

To improve biodiversity and provide a positive legacy for nearby communities.

## How we identified our proposed option

The section of A303 needing improvement between Amesbury and Berwick Down is 7.5 miles (12 kilometres) long, starting from a point east of Countess roundabout at Amesbury and ending where the road becomes dual carriageway again to the west of Winterbourne Stoke.

Upgrading this section of road is complex and sensitive and lots of people have an interest in seeing it delivered well. To make sure we get to the best solution we first identified all the options and then gradually narrowed them down using four broad steps:

### Step 1

#### Identifying route corridors

### Step 2

#### Assessing route corridors

### Step 3

#### Developing route options

### Step 4

#### Assessing route options

## More information

To find out more about our options identification process please see our *Technical Appraisal Report* at [www.highways.gov.uk/a303stonehenge/consultation](http://www.highways.gov.uk/a303stonehenge/consultation)

## Step 1: Identifying route corridors

Over the past 25 years more than 60 potential routes have been identified and a number of possible routes have been examined at a Planning Conference in 1995 and a Public Inquiry in 2004. Notwithstanding these previous examinations we have undertaken a fresh review of all this previous work as part of a rigorous search for the best route.

To assess the different routes, we first of all grouped them together into seven broad Corridors (A to G) within three categories:

- surface routes partially within the World Heritage Site (WHS)
- routes including a tunnel within the WHS
- surface routes wholly outside the WHS

See Figure 4 on page 20 for a plan of all the route corridors

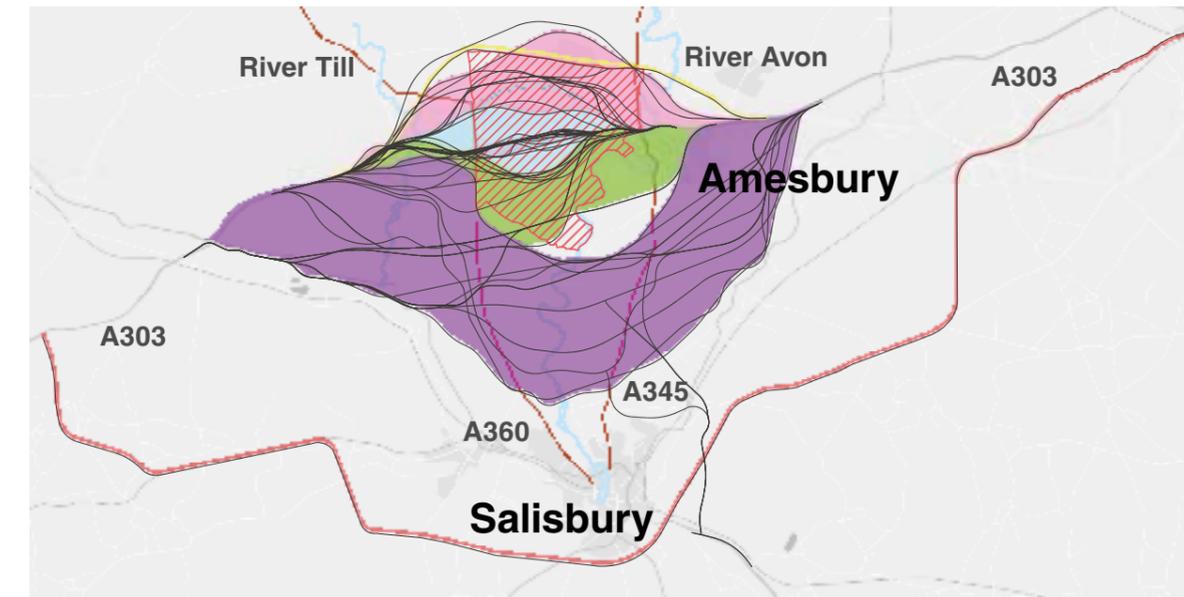


Figure 3: Illustrative map of historic routes with corridors

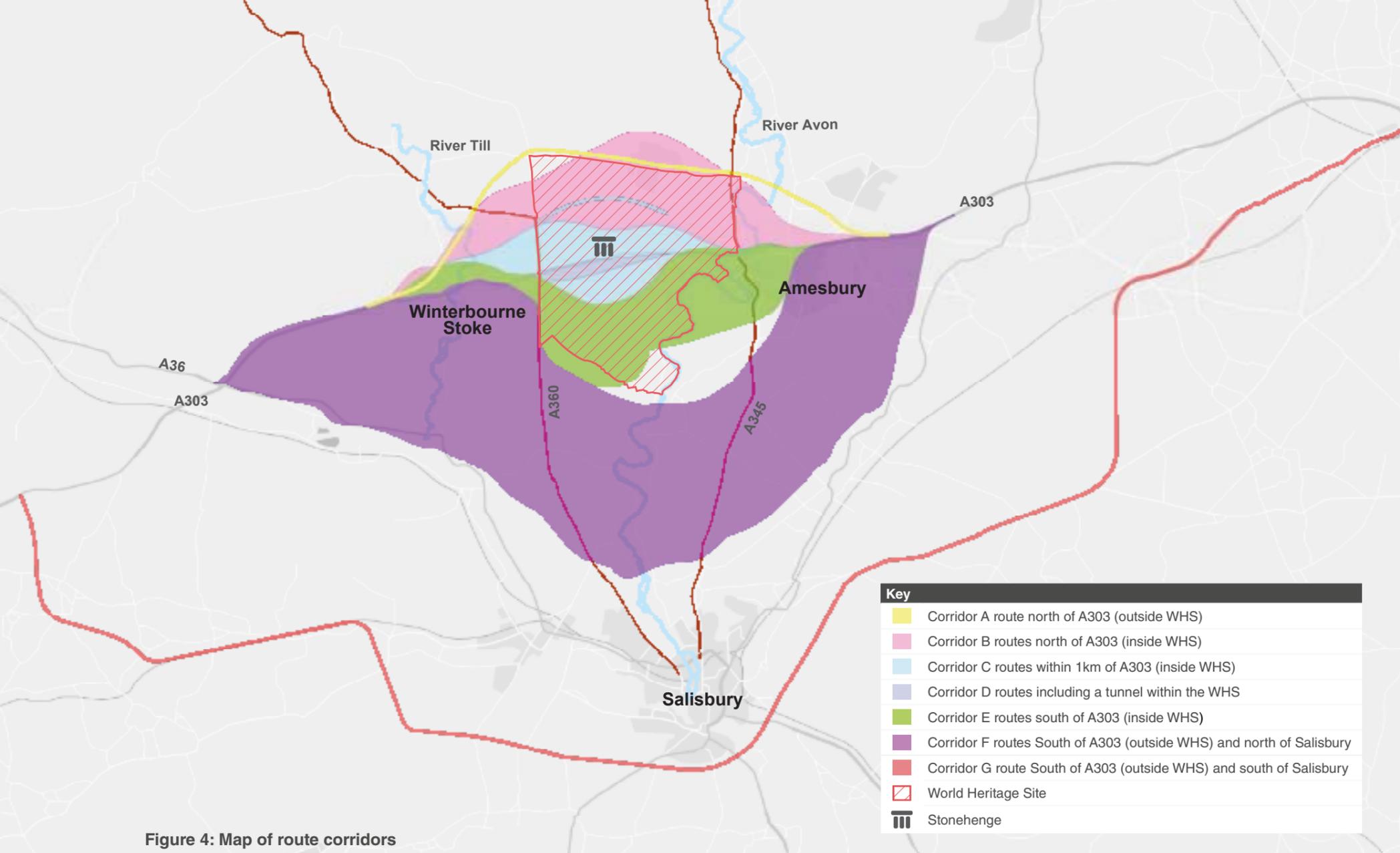
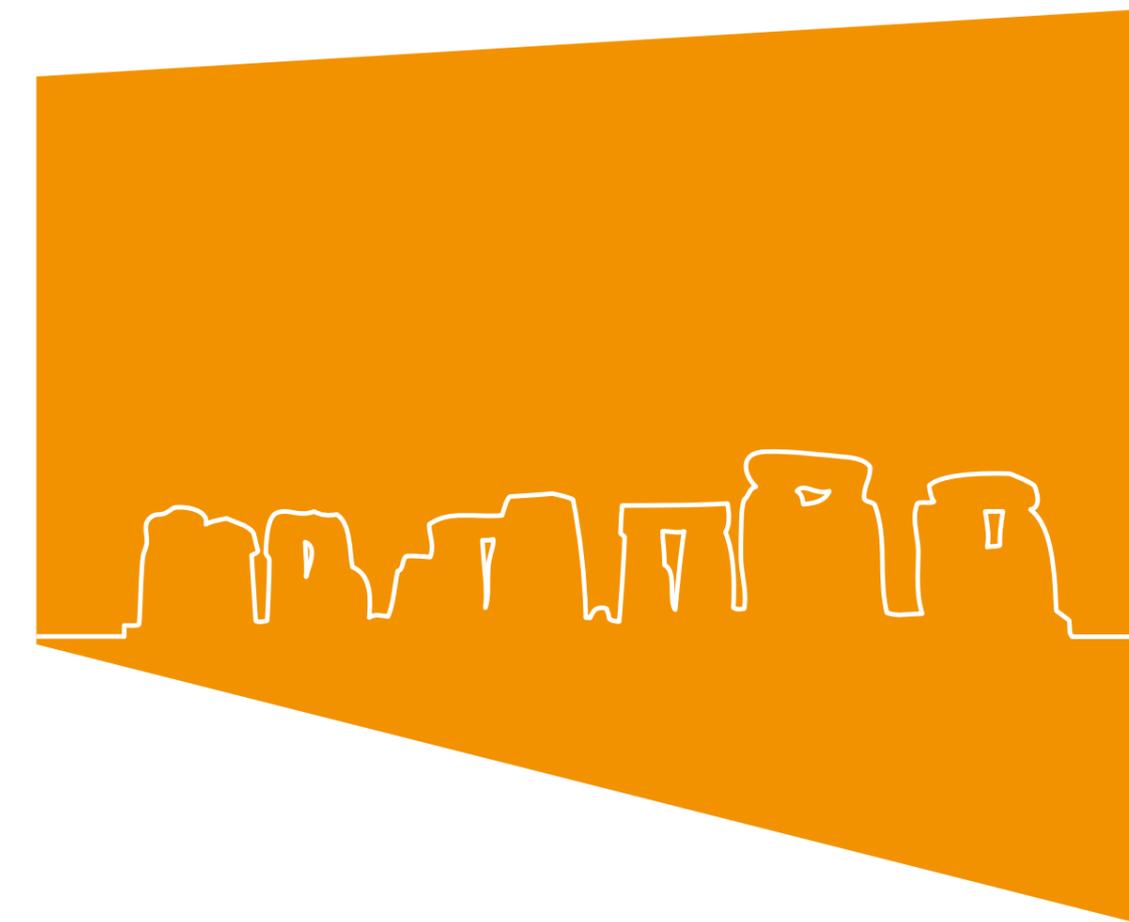


Figure 4: Map of route corridors

## Step 2: Assessing route corridors

The next step was to assess the route corridors themselves to identify which ones best met the scheme's objectives.

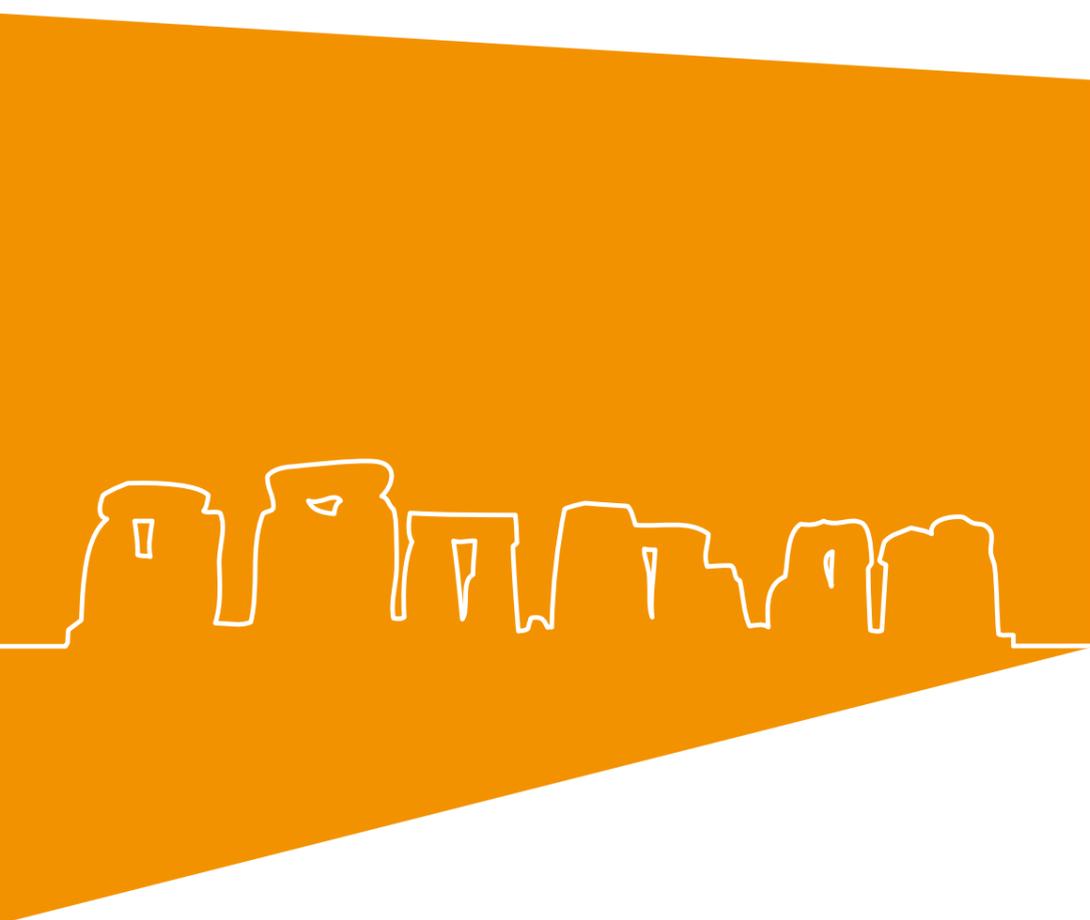
The assessments of all the route corridors and our conclusions about them are summarised in Table 1 on the following pages.



**Table 1: Conclusions from route corridor assessment**

Route corridor	Assessment	Conclusion
Surface routes within the World Heritage Site (WHS) (Route corridors B, C and E)	Surface routes within the WHS could offer transport and economic benefits at a lower cost than building a tunnel. However, the A303 would still split the WHS in two and be visible and intrusive within the WHS. These route corridors would therefore fundamentally fail to secure the heritage and environmental objectives.	Surface routes through the WHS (route corridors B, C and E) would not meet the objective for enhancing the WHS, including to “protect, conserve and transmit to future generations” and the Outstanding Universal Value of the WHS. For this reason surface routes within the WHS were not taken forward to step 3.
A tunnel within the WHS (Route corridor D)	A tunnel would reconnect the two halves of the WHS currently divided by the A303 and reduce the impact of traffic, thereby improving the historic landscape and the setting of key ancient monuments including Stonehenge itself. Although the tunnel portals and dual carriageway approaches would fall within the WHS there would be overall heritage benefits. The impact of the portals and approaches can be mitigated with appropriate design. A tunnel would also help enhance biodiversity by bolstering and creating habitats that would increase the range and number of flora and fauna species. Although more expensive, a tunnel would be a more direct route meaning it is best for delivering transport and economic benefits.	Tunnel routes through the WHS (route corridor D) meet the objectives of the scheme and were taken forward to step 3.

Route corridor	Assessment	Conclusion
Surface routes outside the WHS (route corridors A, F and G)	<b>Route corridor A:</b> There is limited scope for surface routes north of the WHS because of the proximity of Larkhill and Durrington. This northern route corridor would also cause substantial harm to important heritage features such as Durrington Walls and the Outstanding Universal Value of the WHS, and so would not deliver overall heritage benefits. There would also be significant adverse impacts on the environment and local communities.	<b>Route corridor A:</b> Surface routes to the north of the WHS would not meet heritage objectives and would perform badly against the environment and community objective. For these reasons route corridor A was not taken forward to step 3.
	<b>Route corridor F:</b> Routes south of the WHS would completely remove the A303 from the WHS, bringing substantial heritage benefits by reconnecting the two halves of the WHS in their entirety and improving the setting of key monuments. These benefits need to be balanced against impacts on the environment, as the new road would have an extensive, lengthy footprint within a high quality, unspoilt landscape. Any route within corridor F would involve a new high level crossing of the Woodford Valley and the River Avon. This valley has a number of attractive villages which straddle the banks of the River Avon and has a number of conservation areas and many listed buildings. The Avon also has protected status as a Special Area of Conservation (SAC) and is a Site of Special Scientific Interest (SSSI). Options in route corridor F would offer a less direct route for through traffic and would therefore deliver reduced transport and economic benefits. They would also interact less well with local roads and would actually increase rat-running through local villages.	<b>Route corridor F:</b> Surface routes south of the WHS perform less well against transport and economic objectives the further south they go, and would have increasing adverse effects on the environment and communities. However, they would have substantial benefits for the WHS. For this reason route corridor F was taken forward to step 3.
	<b>Route corridor G:</b> Any route to the south of Salisbury would be a long diversion for A303 traffic, resulting in extensive adverse impacts on both the environment and communities. Although it would offer improved access to Salisbury, the option would fail to reduce journey times for users of the A303 and would not deliver the economic and transport objectives sought for the scheme.	<b>Route corridor G:</b> A lengthy route to the south of Salisbury would be a very poor environmental fit and would also not deliver the scheme's economic and transport objectives. This route corridor was therefore not taken forward to step 3.



## Conclusions at end of step 2

Only two route corridors were selected to go forward to step 3 of the route identification process:

- Route corridor D — routes including a tunnel within the WHS
- Route corridor F — surface routes south of A303, wholly outside the WHS

All other route corridors did not meet the key scheme objectives and were not taken forward for further assessment.

Figure 5 shows the two route corridors taken forward to step 3.

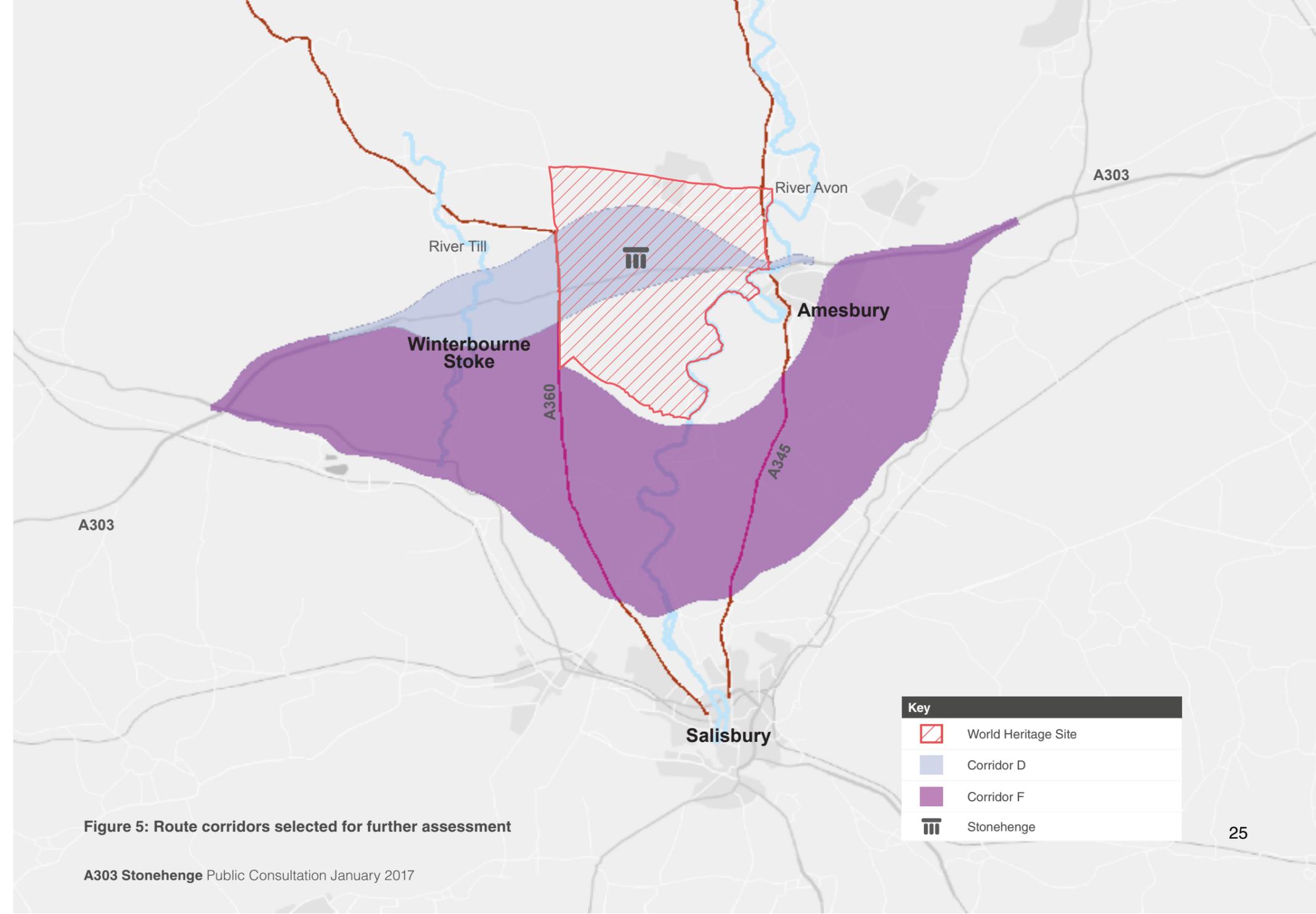


Figure 5: Route corridors selected for further assessment

Key	
	World Heritage Site
	Corridor D
	Corridor F
	Stonehenge

### Step 3: Identifying route options

Step 3 identified the best route alignments within the two remaining route corridors. We applied a number of best practice design principles to find the alignments which would perform best at:

- Minimising effects on nearby people and property
- Being absorbed within the landform and minimising their effect on the landscape
- Avoiding direct impacts on designated features like Sites of Special Scientific Interest or scheduled monuments, and the most sensitive and valued assets within the World Heritage Site (WHS).

In addition to these principles, these pages give a summary of other key features and considerations for route alignments.

#### Route options in route corridor D

Route corridor D included all the routes which incorporated a tunnel at least partly inside the WHS. The key considerations for this route corridor were the tunnel length, the location of the entry and exit points (portals), and the best way to bypass Winterbourne Stoke.

#### The tunnel:

Building a tunnel under the WHS would help us take the most direct route between Amesbury and Berwick Down, remove the existing A303 from a substantial part of the WHS and reconnect its two halves.

Although the Government has committed funding for a tunnel of 1.8 miles (2.9 kilometres), we also considered shorter and longer options.

A shorter 1.5 mile (2.5 kilometre) tunnel was found to improve the setting of Stonehenge but the location of the portals would cause substantial harm to other important monuments and features in the WHS which contribute to its Outstanding Universal Value. Therefore this length of tunnel was not considered to deliver overall heritage benefits.

Longer tunnels of up to 2.8 miles (4.5 kilometres) would provide more benefits for the WHS but would be unaffordable. In addition, tunnels of more than 1.9 miles (3 kilometres) would also need ventilation shafts within the WHS which would have significant adverse visual impact.

Tunnels of approximately 1.8 miles (2.9 kilometres) were considered a good balance, delivering overall benefits to the WHS within the budget set by Government. Crucially, a tunnel this long gives us the option of avoiding the Normanton Down Barrows at the western end of the tunnel, as well as reconnecting The Avenue in the east (see Chapter 7).

#### Winterbourne Stoke bypass:

We need to remove heavy through traffic from the centre of Winterbourne Stoke by building a new bypass. We identified routes to both the north and south of the village for further consideration in step 4.

#### Route options in route corridor F

Key considerations in this area are the impact on local villages and the high quality landscape and environmental designated sites within the route corridor.

#### The route:

Building a new road south of the WHS would help us remove the A303 from the WHS completely and reconnect it fully.

In general terms, the more southerly the routes are within route corridor F the longer they are. This makes them more expensive and reduces their potential transport and economic benefits. Also, the further south we take the A303, the greater its environmental impact and the less effective it is at interacting with local roads. That means it won't be as good at reducing traffic in local villages.

#### Winterbourne Stoke bypass:

Just as in route corridor D, we need to remove through traffic from Winterbourne Stoke by building a new bypass. All options within route corridor F would mean bypassing the village to the south.

### Conclusions at end of step 3

Having assessed the route options within both corridors, one optimum route emerged within route Corridor D as being suitable for progressing into step 4, with either a northern or southern bypass of Winterbourne Stoke, together with one optimum route within route corridor F. You can see them in Figure 6, shown as Options 1 and 2.

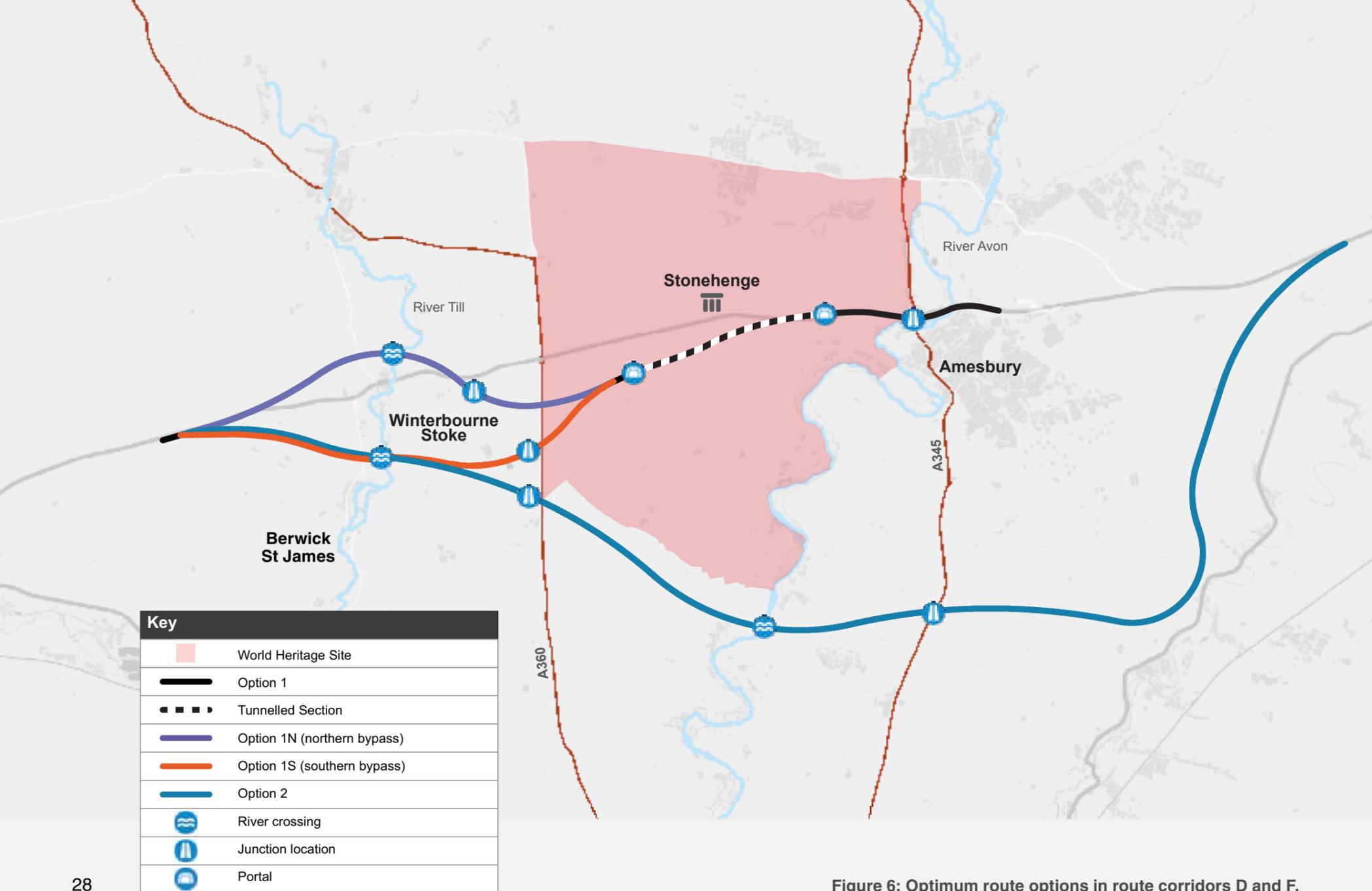


Figure 6: Optimum route options in route corridors D and F.

## Step 4: Assessing route options

The final step was to assess these remaining route options against our objectives for the scheme. The options, shown in Figure 6, are:

- Option 1:** a 1.8 mile (2.9 kilometre) tunnel under the WHS with either:
- Option 1N** a northern bypass of Winterbourne Stoke
  - Option 1S** a southern bypass of Winterbourne Stoke

**Option 2:** a surface route south of the WHS.

The results of assessment against the objectives are summarised below

Table 2: Results of the detailed route assessment against the transport objectives

Option 1: Tunnel route Total length = 8 miles (13 kilometres)	Option 1N: Northern bypass of Winterbourne Stoke	Option 1S: Southern bypass of Winterbourne Stoke	Option 2: Surface route Total length = 13.7 miles (21.5 kilometres)
<p>As part of an Expressway to the South West, Option 1 would provide a complete solution to existing problems of congestion, reliability, resilience and safety along the A303 between Amesbury and Berwick Down.</p> <p>Average journey times would improve by several minutes and delays of up to an hour at times of peak congestion would be eliminated. There would be fewer accidents and incidents on both the A303 and the local network, with an end to rat-running by motorists seeking to avoid congestion, which currently increases flows through Larkhill by up to 50%.</p> <p>Option 1 would accommodate safe, ready access to and from local destinations (via grade-separated junctions with the A360 and A345).</p> <p>It would also accommodate non-motorised movements either via relieved local roads or via existing rights-of-way that would be maintained.</p>	<p>In terms of permanent transport benefits, there is little to choose between a northern or southern bypass of Winterbourne Stoke. However there would be a temporary difference during construction as indicated below.</p> <p>To the west of the A360, a northern option would need to cross the existing A303 in order to bypass Winterbourne Stoke. During construction, this would lead to temporary disruption along the A303 where traffic management would be required to allow construction plant to cross.</p>	<p>A southern bypass would not need to cross the existing A303 and would be easier to build without affecting east — west traffic flows.</p>	<p>Option 2 would also form part of the overall Expressway, with similar levels of benefit. However because it takes a wider berth to avoid the WHS it adds a net 2.5 miles (3.8 kilometres) to journeys for travellers to the South West compared with Option 1, resulting in marginally longer journey times and increased travel costs.</p> <p>The more southerly junctions with the A345 and A360 would mean that the route would be less effective in interacting with the local road network, in facilitating movements to the north (e.g. to Marlborough, Devizes) and in serving local access movements. This means more traffic would be left on adjacent local roads.</p> <p>As with Option 1, non-motorised rights-of-way movements would be maintained.</p>

**Table 3: Results of the detailed route assessment against the economic objective**

Option 1: Tunnel route Total length = 8 miles (13 kilometres)	Option 1N: Northern bypass of Winterbourne Stoke	Option 1S: Southern bypass of Winterbourne Stoke	Option 2: Surface route Total length = 13.7 miles (21.5 kilometres)
<p>As part of an Expressway, Option 1 would provide the free-flowing, reliable, safe connection needed to support the wider economy across the South West.</p> <p>Option 1 would interact well with the local road network, via improved junctions with the A360 and A345. This would make local trips easier and safer, reducing severance in communities and helping to stimulate local economic activity.</p> <p>At this early stage in the scheme development, it is not possible to be precise about costs. We are currently estimating that the cost of Option 1 is likely to be in the order of £1.4bn, within a range extending up to a maximum of £1.8bn.</p> <p>The quantified benefits that Option 1 would provide are currently evaluated to be in the order of 1.5-2 times greater than the cost of providing this option.</p>	<p>In terms of costs, benefits and economic growth relating to jobs and housing, for regional and local economies, there is little to choose between a northern and southern bypass of Winterbourne Stoke.</p>		<p>Despite being longer, Option 2 would still provide a resilient, reliable, free-flowing link to support the wider economy of the South West.</p> <p>However, with greater levels of traffic remaining on the local road network, Option 2 would be less effective in stimulating local economic growth.</p> <p>We are currently estimating that the cost of Option 2 is likely to be in the order of £1bn, within a range extending up to a maximum of £1.4bn, making Option 2 potentially some £400m cheaper than Option 1.</p> <p>Option 2 would provide quantified benefits that are currently evaluated to be in the order of 1.5-2 times greater than the cost of providing this option.</p>

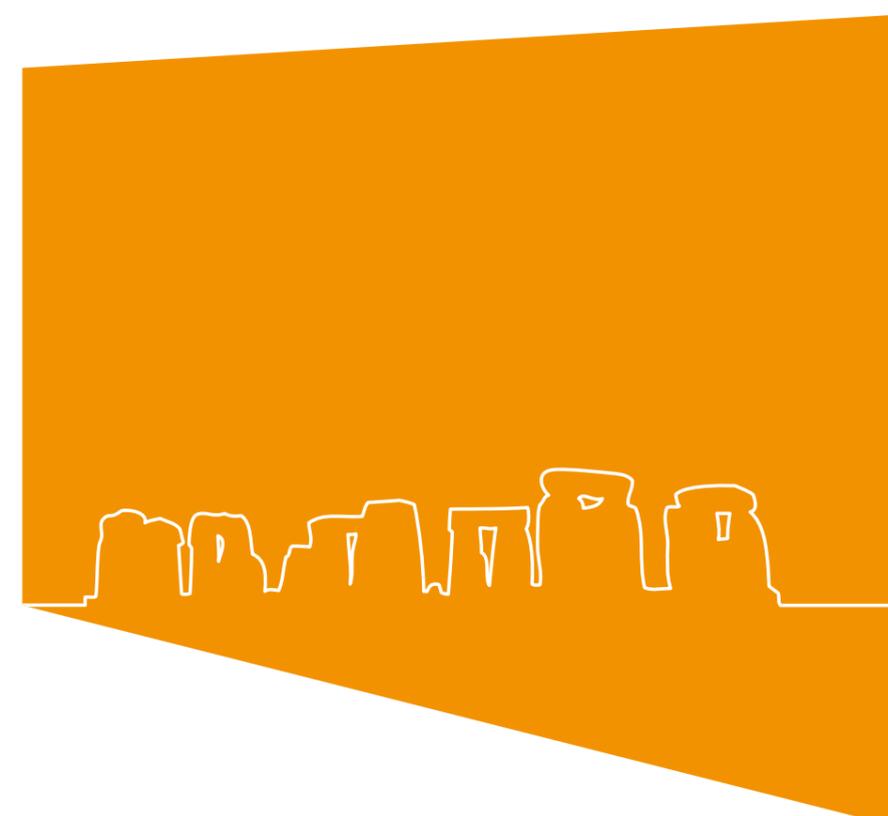
**Table 4: Results of the detailed route assessment against the cultural heritage objective**

Option 1: Tunnel route Total length = 8 miles (13 kilometres)	Option 1N: Northern bypass of Winterbourne Stoke	Option 1S: Southern bypass of Winterbourne Stoke	Option 2: Surface route Total length = 13.7 miles (21.5 kilometres)
<p>The tunnel would bring substantial benefits to the World Heritage Site (WHS) by reconnecting the two halves of the WHS and removing the existing A303 in a key part of the WHS, reducing the impact of traffic and significantly improving the setting of a number of scheduled monuments, including Stonehenge itself.</p> <p>There would be adverse impacts arising from the construction of two tunnel portals within the WHS and the dual carriageway traffic approaches on the setting of some scheduled monuments (such as the Normanton Down Barrow Group). These impacts can be mitigated with sensitive road and portal design so that the benefits provided by the tunnel outweigh the adverse impacts.</p>	<p>Within the WHS, both options would have substantially the same mix of benefits and impacts on heritage assets.</p> <p>Outside the WHS, a northern bypass of Winterbourne Stoke would affect the setting of scheduled monuments to the north of the village which contribute to the Outstanding Universal Value of the WHS, despite their location outside the defined boundary of the WHS.</p>	<p>Outside the WHS, a southern bypass is unlikely to give rise to any additional material impacts on scheduled monuments and other assets within the WHS that contribute to the Outstanding Universal Value of the WHS.</p> <p>The route has been designed to avoid known assets and buried remains. However, further survey work is needed to determine the significance of the impact a southern bypass would have on currently unknown archaeology.</p>	<p>Option 2 would deliver the greatest degree of heritage benefit for the WHS by removing the existing A303 in its entirety between the existing Countess and Longbarrow roundabouts.</p> <p>Outside the boundary of the WHS, the route would be imposing its extensive footprint on an area rich in archaeology. There are large numbers of known designated archaeological assets in the route corridor and the likelihood of encountering currently undiscovered archaeology is high.</p> <p>There would be the possibility of adverse effects on the setting of the WHS, where the route runs along its southern boundary.</p> <p>Where the route passes to the south of Winterbourne Stoke the impacts would be the same as stated under Option 1S.</p>

**Table 5: Results of the detailed route assessment against the environment and community objective**

Option 1: Tunnel route Total length = 8 miles (13 kilometres)	Option 1N: Northern bypass of Winterbourne Stoke	Option 1S: Southern bypass of Winterbourne Stoke
<p>Removing the existing A303 from a large part of the World Heritage Site (WHS) would re-connect its northern and southern halves, which are currently separated by the road. This would make it much easier for the public and visitors to roam safely within the WHS. Removing the road would have a similar effect for nature and wildlife, which would be able to spread and diversify more freely.</p> <p>As well as enhancing biodiversity, this option would result in a tranquil setting for Stonehenge.</p> <p>Communities, such as Larkhill, Durrington, Bulford and Shrewton, would benefit significantly from the removal of rat-running traffic. Flows through Larkhill, for example, would reduce by more than 30% during peak summer months.</p>	<p>Both options would remove through traffic and its associated noise and pollution from Winterbourne Stoke, greatly improving the village environment and the quality of everyday life. Both would have the same environmental impacts within the WHS.</p> <p>Both options would involve viaduct crossings of the Till Valley. The River Till is part of the Avon river system and is protected as a Special Area of Conservation (SAC) and a Site of Special Scientific Interest (SSSI). The topography associated with both crossings would mean similar levels of landscape intrusion, but both crossings could be achieved without damage to the protected status of the Till.</p> <p>To the north of Winterbourne Stoke, the route would pass close by Parsonage Down (which is part of the Salisbury Plain Special Area of Conservation, and is a Site of Special Scientific Interest and a National Nature Reserve), giving rise to some adverse effect.</p> <p>A northern bypass would be visible from properties and public rights-of-way within and to the north and south of Winterbourne Stoke. Although the northern bypass would take the road away from Winterbourne Stoke it would still detract from the setting of the conservation area and listed buildings.</p>	<p>A southern bypass would take the new road closer to the village of Berwick St. James and create severance between Winterbourne Stoke and Berwick St. James.</p> <p>The route would be partly visible from some properties and public rights-of-way within and to the north and south of Winterbourne Stoke and Berwick St. James.</p> <p>The landform, intervening buildings, tree belts and the relatively wooded nature of the existing River Till landscape would limit adverse impacts on the setting of the conservation areas and listed buildings in the two villages.</p>

Option 2: Surface route total length = 13.7 miles (21.5 kilometres)
<p>Option 2 would deliver environmental benefit within the WHS through the removal of the entire length of the existing A303 between Countess and Longbarrow roundabouts.</p> <p>However, because Option 2 starts further east and is longer, it would affect 8.7 miles (13 km) more land than Option 1. Option 2 would cut a much longer swathe through largely tranquil, high quality, unspoilt countryside.</p> <p>This option would include deep cuttings where the downland and the Woodford Valley meet. There would be associated extensive loss of habitat and the significant introduction of a physical barrier to the spread of flora and fauna. The option would sever areas of valuable biodiversity.</p> <p>There would also be a much greater loss of high quality agricultural land than with Option 1.</p> <p>Option 2 would require a major new structure crossing of the River Avon, intruding into the peaceful Woodford Valley with its attractive villages, within which are conservation areas and many listed buildings.</p> <p>The topography of the area, and the need to avoid damaging impacts to the Avon SAC &amp; SSSI, means that the crossing would entail a road viaduct up to 35 metres above the valley floor. This scale of river crossing would cause significant intrusion on the villages and communities along the valley, particularly those closest either side in Great Durnford and Upper Woodford, and would affect the settings of the nearby conservation areas and listed buildings.</p> <p>With the main A303/A345 junction and the A303/A360 junction both moving further south, traffic seeking destinations to the north (eg towards Devizes or Marlborough) may choose to divert from the A303 and travel along unsuitable roads through communities such as Larkhill, where rat-running flows would increase by more than 30% beyond current high levels, rather than reduce from current levels by more than 30% as is the case with Option 1.</p> <p>Where the route passes to the south of Winterbourne Stoke the impacts would be the same as stated under Option 1S.</p>





View north-east from Upper Woodford affected by Option 2



An impression of the same view with a viaduct carrying the new road in Option 2

## Conclusions at end of step 4

Our assessment indicates that Option 1 best meets the objectives of the scheme. Against each objective, Option 1 will:

- **Transport** – remove congestion and improve safety on the A303, providing faster, more reliable journey times
- **Economy** – increase connectivity to and from the South West, supporting regional growth in jobs and housing
- **Cultural heritage** – bring significant benefits to the heart of the WHS, including Stonehenge itself, ensuring there is an overall benefit to its Outstanding Universal Value
- **Environment and community** – minimise environmental impacts, improve biodiversity and allow flora and fauna to thrive in a reconnected WHS landscape; remove traffic from the heart of Winterbourne Stoke and reduce rat-running in other local villages, thereby enhancing the quality of life in these communities.

Within Option 1, the assessment of the alternatives for bypassing Winterbourne Stoke (Options 1N and 1S) did not result in a clear favourite. We are therefore seeking your views on both options for bypassing Winterbourne Stoke as part of this public consultation.

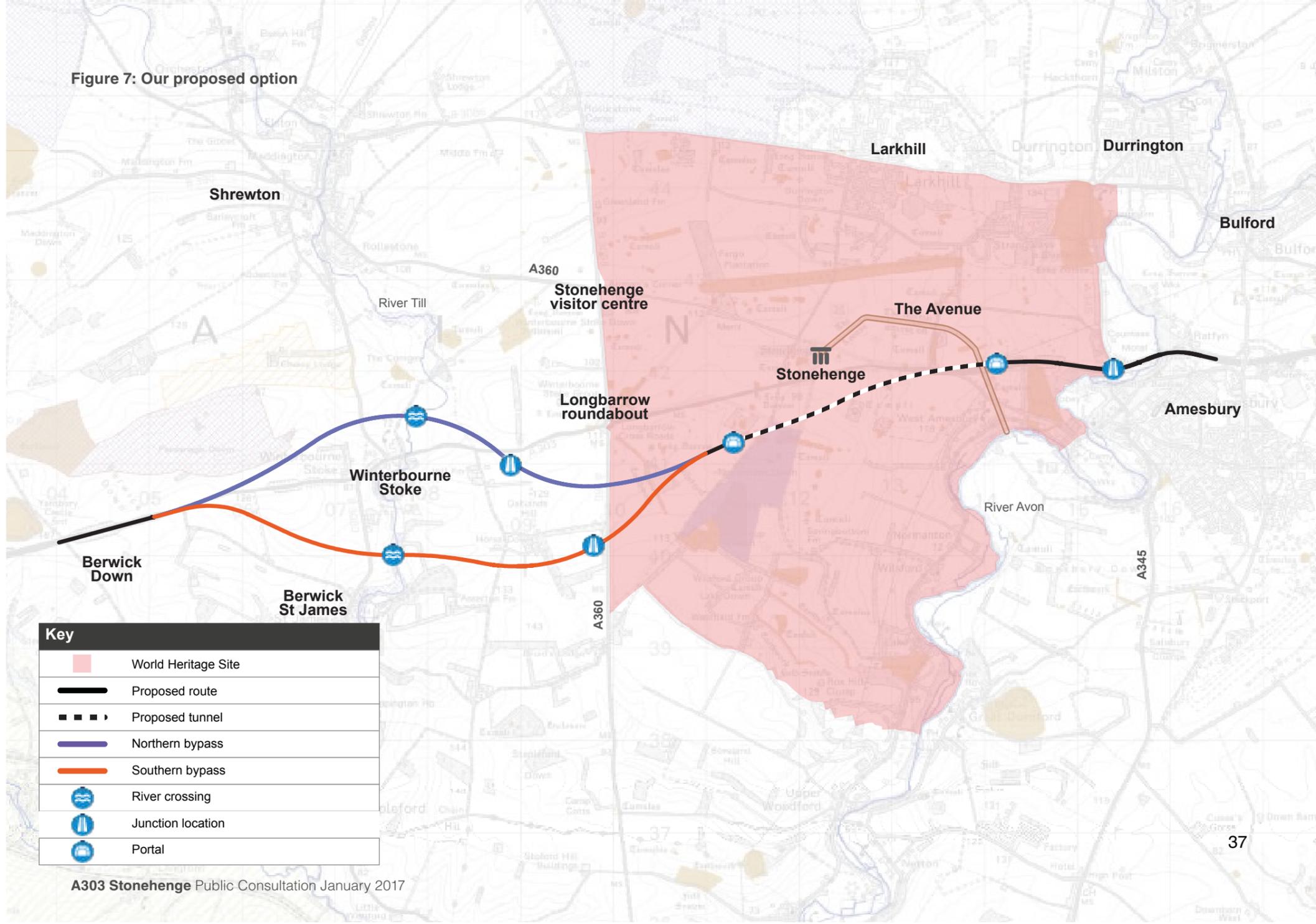


# 7 Our proposed option

Our work so far provides evidence that a tunnel route through the World Heritage Site (WHS) together with a bypass of Winterbourne Stoke passing either to the north or to the south of the village would be the best solution for the scheme. To show how it might look, we have developed an initial plan for the scheme showing its four key features, which are:

- A new junction between the A303 and A345 at the existing Countess roundabout, accommodating free-flowing east to west and north to south traffic movements
- A 1.8 mile (2.9 kilometre) long twin bore tunnel
- A new junction to the west of and outside the WHS accommodating free-flowing A303 and A360 traffic movements, as well as a link to Winterbourne Stoke
- A bypass for Winterbourne Stoke

Figure 7 shows our proposed option in more detail. You can find out about the key features on the pages that follow.





38 Queuing traffic at Countess roundabout

## Countess roundabout:

This is the first roundabout for motorists heading to the South West along the A303 and it is a major bottleneck. We plan a new junction here that separates the traffic going east-west along the A303 from traffic going north-south along the A345 Countess Road, with slip roads accommodating traffic movements between the two roads. Figure 8 shows the area we are considering for the junction.



Figure 8: Plan showing area and visualisation of Countess roundabout



The layout of this junction has yet to be developed fully, but could involve a new A303 flyover above a redesigned roundabout together with entry and exit slip roads. Before finalising the design we will also need to work out how a new junction layout would interact with the existing junction just a short distance further east on the A303 at Solstice Park.

## The tunnel:

At the moment the A303 brings traffic within sight and sound of Stonehenge. A tunnel would greatly improve the setting for Stonehenge itself and a number of other monuments, and would reconnect the northern and southern parts of the World Heritage Site (WHS), enhancing the visitor experience and opening up the WHS for wider exploration on foot. We would remove the existing A303 between its junction with Stonehenge Road in Amesbury and Longbarrow roundabout. It would be replaced with a green byway through the WHS for non-motorised use, except for occasional access to existing underground services or by farmers accessing their land.

Around 3.7 miles (6 kilometres) of the A303 currently passes through the WHS, from Countess roundabout in the east to Longbarrow roundabout in the west. A 1.8 mile (2.9 kilometre) tunnel inevitably means the entry and exit portals need to be within the WHS itself. Our working assumption is that although the tunnel will be lit on the inside, the approach to the portals will not be lit, preserving the dark sky environment throughout the year.

The precise location and design of the portals at either end of the tunnel is something we will be developing in consultation with heritage stakeholders and to take account of additional survey work as it becomes available. For now, we can only identify broad possible locations for the tunnel portals.



Before and after illustration with the A303 removed

## Eastern portal location:

Current thinking is that the eastern tunnel portal would be located to the east of King Barrow Ridge, putting it out-of-sight from the stones themselves. Figure 9 shows the general area where the portal would be located.

The most important influence on the choice of location is whether or not the tunnel extends underneath an important feature known as The Avenue. The Avenue is an ancient ceremonial processional path that runs from Stonehenge towards the River Avon. It is currently cut in two by the A303.

Our working assumption is that the eastern portal would be east of The Avenue and just to the north of the existing A303 in the general area shown on Figure 9. However, we will continue to review and refine our ideas, taking into account archaeological information as it comes available.



Figure 9: Plan showing general area and visualisation of location for eastern tunnel portal

## Western portal location:

A fundamental consideration for this portal is to locate it beyond Stonehenge's western horizon so that the tunnel portal is not visible from the stones. We also want to take advantage of the natural topography south of the A303 so that the portal sits in a natural dip where it would be hidden as much as possible.

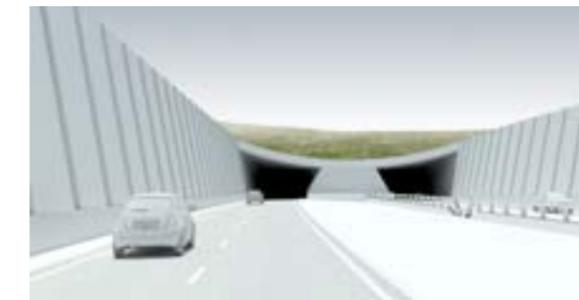
The general area we are investigating for the western portal is to the west of the Normanton Down Barrow Group and is shown on Figure 10. As with the eastern portal, we will continue to review and refine our ideas, taking account of archaeological information as it comes available.



Figure 10: Plan showing general area and visualisation of location for western tunnel portal

## Concept portal designs:

We have started to think about the architectural design of the tunnel portals and approaches and how best to integrate these into the setting of the WHS. Approach options affect the amount of land we need. Heavily engineered steep sided cuttings require less land than softer green slopes. Tunnel entrances could be anything from futuristic to functional. The ones shown here are just to give you an idea. No decisions have been made.



Artists impression of portal concept designs

### A303/A360 junction:

At the moment the A303 crosses the A360 at Longbarrow roundabout. The new road would be further south so we need to create a new junction where it meets the A360. This means we need to replace the existing Longbarrow roundabout with an alternative junction to preserve access to Winterbourne Stoke.

At the new A360 junction we plan to separate traffic going east-west along the A303 and north-south along the A360. This includes vehicles heading northwards towards the Stonehenge Visitor Centre or towards Devizes (via Shrewton) and southwards towards Salisbury. Figure 11 shows the area we are considering for the junction.

As well as accommodating all traffic movements between the A303 and A360, the design will provide access to and from Winterbourne Stoke and other nearby communities.

As with Countess roundabout, the design of this junction has yet to be developed and its precise location and layout will be influenced by the choice of bypass for Winterbourne Stoke.



Figure 11: Plan indicating the general locations of the A303/A360 junction

### Winterbourne Stoke bypass:

The tunnel route (Option 1) through the World Heritage Site (WHS) could either take an alignment to the north of the village (Option 1N), or continue on a southerly alignment passing to the south of the village (Option 1S). Both options are shown on Figure 12.

The relative merits of the northern and southern bypasses of Winterbourne Stoke are compared in the tables in Chapter 6.

Both Options 1N and 1S would deliver the scheme objectives but with some differing effects. The comparison between the two did not demonstrate a clear best option and we are seeking your views to inform our choice.

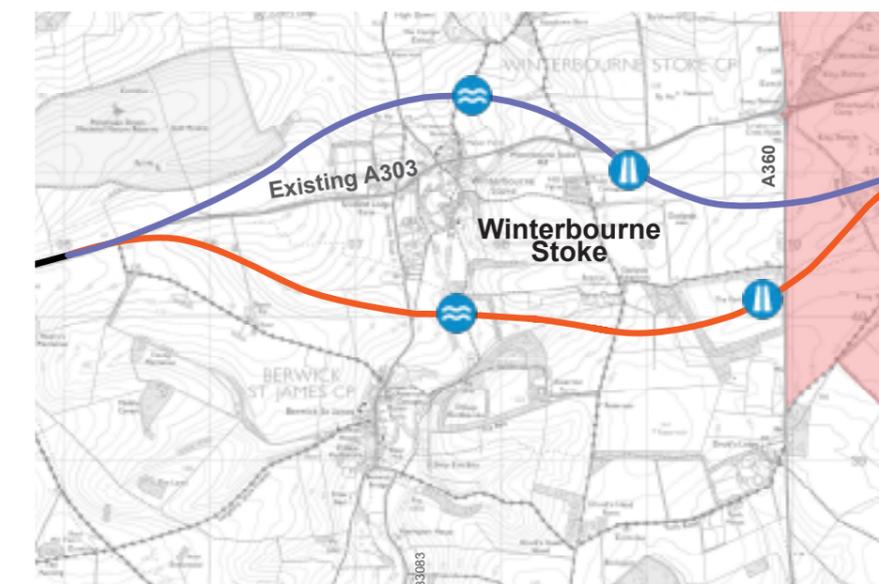


Figure 12: Route alignment options for Winterbourne Stoke bypass

View from near Winterbourne Stoke affected by Option 1N



An impression of the same view showing Option 1N



View from near Berwick St James affected by Option 1S



An impression of the same view showing Option 1S



## 8 What our proposals mean for you

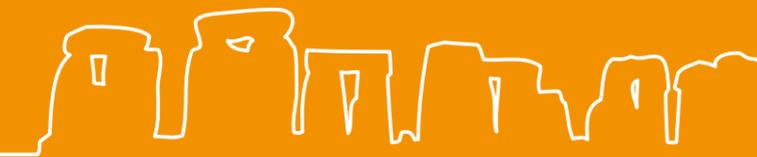
We are committed to making sure our proposals bring long term benefits for local communities, for regional growth and for national heritage. Our continuing work with stakeholders like councils, businesses, specialist organisations, community representatives and user groups will help us understand people's aspirations and leave the best possible legacy for the future, such as:

### Transport

- Reducing congestion, by increasing the road's capacity for free-flowing traffic and making mile-a-minute travel the norm
- Boosting road safety and easing driver stress, by creating a high quality strategic route with fewer obstacles and up-to-date traffic information technology
- Fewer road closures due to incidents or accidents
- Making it safer and easier for cars, walkers and other local road users to reach facilities, by removing heavy rat-running traffic from minor roads and nearby communities.

### Economic growth

- Boosting growth across the whole of the South West region, by making trips quicker and safer, and arrival times easier to predict
- Improving the perception of the South West for tourists and business, by making it an easier place to visit and do business with
- Raising the South West's productivity by creating world-class connections to other UK regions
- Supporting the predicted growth in jobs and housing by increasing the capacity of the strategic road network.



### Cultural heritage

- Enhancing the setting of Stonehenge, a globally recognisable icon, and other important monuments within the World Heritage Site (WHS) by hiding part of the A303 in a tunnel
- Improving people's enjoyment and understanding of the WHS by removing a physical barrier to its exploration, as well as the sight and sound of traffic
- Preserving the Outstanding Universal Value of the WHS for future generations

### Environment and community

- Restoring an area of attractive rural landscape of gentle rolling chalk downland
- Making it easier and safer for people to reach local facilities like schools, shops and surgeries on foot by reducing rat-running traffic in neighbouring villages
- Improving the quality of village life in Winterbourne Stoke, by diverting through-traffic onto a new bypass
- Enhancing biodiversity along the current route by putting the road into a tunnel, allowing wildlife to thrive across a reconnected landscape

As well as to seeking a permanent legacy, we understand that local people will want to know the likely impact that building the scheme will have on their daily life, as well as any potential opportunities that such large scale investment will bring.

We will take community and environmental impacts fully into account at all stages of the development, planning and decision-making process. That means working closely with local communities, local authorities, environmental bodies and major employers as work progresses.

## 9 What happens next

This is your opportunity to give your views on our proposals. If, after reading this booklet, you have further questions or would like to find out more, you can come to one of our exhibitions, details of which are available on our website ([www.highways.gov.uk/a303stonehenge/consultation](http://www.highways.gov.uk/a303stonehenge/consultation)). Or, you can contact us by phone or email using the details on the following page.

When you are ready to give us your views please fill in and send us your completed consultation questionnaire. Complete it online or download and print it from our website. If you need a hard copy, let us know and we can pop one in the post.

### Please get involved and provide your responses by 5 March 2017.

We will analyse your feedback to this consultation and respond to your feedback in the scheme's consultation report. Your views will also help the Secretary of State make a decision on the preferred route.

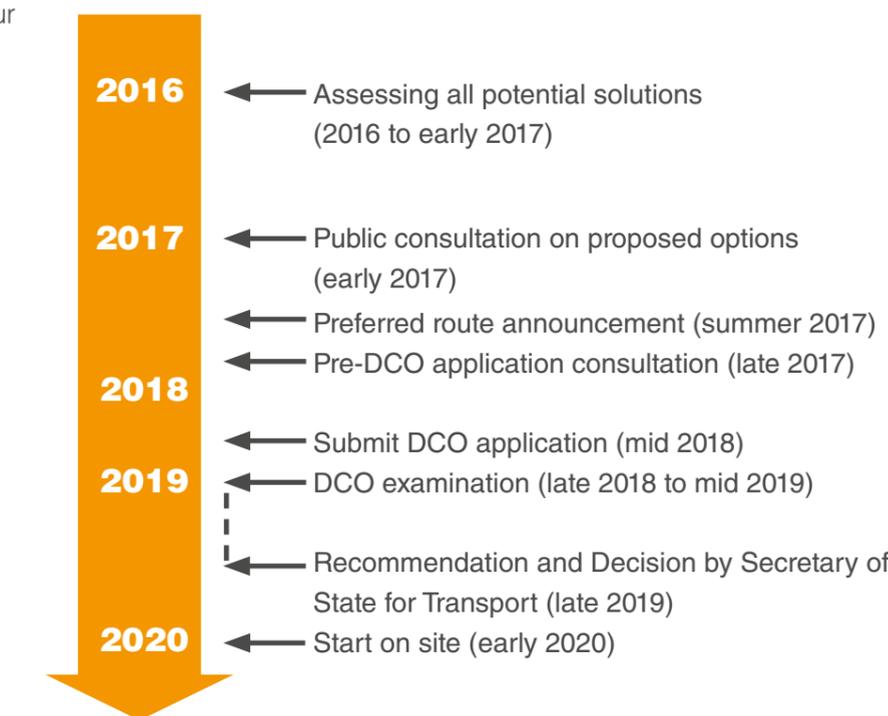
### Timeline and DCO process

Because of its national significance, this scheme needs a special type of planning permission called a Development Consent Order (DCO) which is granted by the Secretary of State for Transport.

There will be another round of consultation later in 2017 on our more detailed proposed solution before we submit our DCO application

to the Planning Inspectorate in 2018. If the application is accepted by the Planning Inspectorate, there will be an examination of the application in which the public can participate. This examination will take a maximum of 6 months. The Planning Inspectorate then has 3 months to make a recommendation to the Secretary of State, who then has a further 3 months to make a final decision.

### Timeline



## How to find out more

To find out more about our initial proposals and give your views you can:

- **Join us at one of our events:** members of our team will be on hand to answer your questions. To find out more about where and when the events are being held visit [www.highways.gov.uk/a303stonehenge/consultation](http://www.highways.gov.uk/a303stonehenge/consultation)
- **Visit our website at [www.highways.gov.uk/a303stonehenge/consultation](http://www.highways.gov.uk/a303stonehenge/consultation):** view and download maps and other information about our initial proposals, including factsheets and reports. You can provide your views by completing the questionnaire online.
- **Phone us:** get in touch by calling 0300 123 5000
- **Email us:** at [A303Stonehenge@highwaysengland.co.uk](mailto:A303Stonehenge@highwaysengland.co.uk)
- **Post your response:** completed questionnaires can be sent by Freepost to the following address (you do not need a stamp): **Freepost A303 STONEHENGE CONSULTATION**

## Contact us

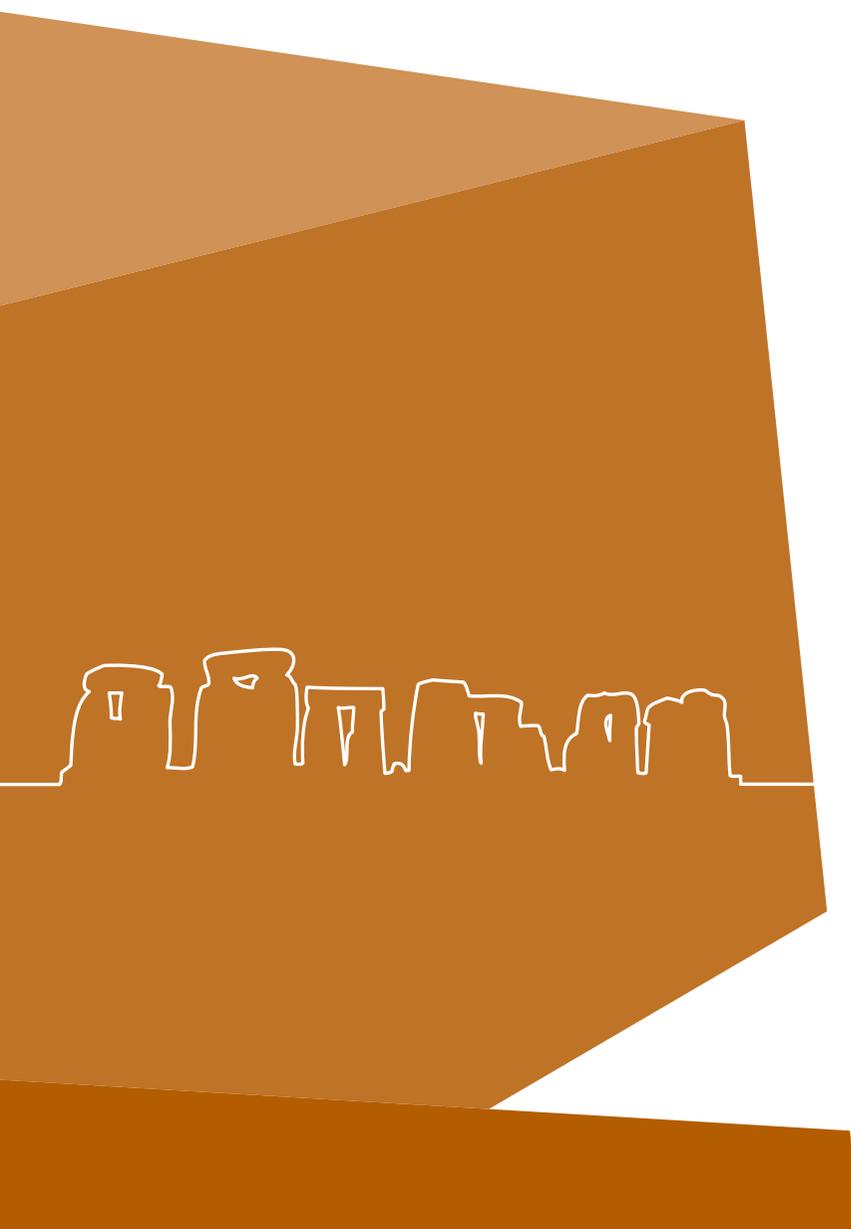
Visit our webpages for information about the scheme and how to have your say, or call or email us to find out more.

 [A303Stonehenge@highwaysengland.co.uk](mailto:A303Stonehenge@highwaysengland.co.uk)

 0300 123 5000

 [www.highways.gov.uk/a303stonehenge/consultation](http://www.highways.gov.uk/a303stonehenge/consultation)

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