



Maximising benefits

A more sustainable tunnel solution at Stonehenge

Introduction

Stonehenge is one of the world's most recognised archaeological sites. In Britain it has iconic status and is visited by over 800,000 people each year. After almost a decade of discussion, the long-awaited A303 improvement scheme to connect London with the South West was finally included in the Government's Targeted Programme of Improvements in July 1998. Uniquely designated as an Exceptional Environmental Scheme, it includes a 2km cut and cover tunnel where the road passes Stonehenge.

As the major landowner in the Stonehenge World Heritage Site the National Trust's primary concern is with the setting of the stones. Our over 700 hectares of land is held inalienably, for the benefit of the nation and we therefore cannot support the current proposal for a cut and cover tunnel, which it is now clear would have serious and permanent consequences for the integrity of the World Heritage Site. Furthermore, we believe there are significant archaeological, landscape and public amenity benefits which can be achieved by increasing the length of the tunnel beyond 2km.

Importance of the scheme to Stonehenge

Stonehenge and Avebury were designated by UNESCO as a World Heritage Site in 1986 under the terms of the 1972 World Heritage Convention. This inscribed Stonehenge as:

A unique example of megalithic architecture, set within a dense collection of some 700 known archaeological sites, which together form the 'most archaeologically sensitive land surface in Europe'. (Prehistoric Society, 1999).....One of the finest examples of a ritual and ceremonial cultural landscapes where the spatial relationships are as significant as the individual sites.

With the implementation of the A303 Improvement Scheme, we now have a once in a lifetime opportunity to achieve a real improvement to the setting of the stones, which must not be wasted. The Exceptional Environmental scheme forms an integral part in delivering a long-term vision for the Stonehenge World Heritage Site, which was described as "a national disgrace" in 1993 by the Public Accounts Committee. This vision sees the Highways Agency working with English Heritage, The National Trust, and other associated national and local bodies to return the world famous monument to its original setting. Burying the A303 in a tunnel is a crucial element in improving the landscape, along with the creation, by English Heritage, of world-class visitor facilities outside the World Heritage Site at Countess East.

What is the National Trust calling for?

To ensure that the quality of Stonehenge is not compromised irreparably for future generations the tunnel must be bored, not cut and cover. Furthermore, the Trust is strongly in favour of a long bored tunnel which maximises protection of the integrity of the World Heritage Site (WHS).

From the initial assessment carried out by the Highways Agency it would appear that a 4.5km deep-bored tunnel would bring the greatest balance of advantage for the site, particularly in its avoidance of direct archaeological impact and removal of a significant negative impact on the landscape quality of the western third of the World Heritage Site. More information is required on the environmental, health and safety, and engineering impacts of the tunnels, most notably the 4.5km tunnel, and we strongly urge the Government to examine these impacts more fully before reaching a decision on the tunnel length.

What is wrong with the cut and cover method?

The cut and cover method is unacceptable if we are to improve the integrity of the World Heritage Site. It would destroy archaeological sites along the line of the tunnel, including a number of Scheduled Ancient Monuments. It would also risk any as yet undetected buried remains and generate a new mound in Stonehenge Bottom, visible from the Stones. These are permanent and significant negative impacts within the World Heritage Site.

What difference would a bore design make?

The shallow bored method would minimise irretrievable damage being done to precious archaeological sites, both known and as yet undiscovered and the integrity of landforms within site of the Stones would be protected.

Why has the debate moved on from the current proposal of 2km length tunnel?

In 1998 we were advised that a tunnel longer than 2km would require significant intermediate ventilation structures, which would have had likely unacceptable impacts on the landscape of the World Heritage Site. Ventilation technology has moved on since then and we understand that forced longitudinal ventilation by jet fans is now possible beyond 2km. Given this, and the information currently available, the National Trust cannot support a short tunnel length.

Eastern portal

A shift of the *eastern portal* by a further 570 metres would increase the benefits of the tunnel in three key areas, and make a major contribution to improving the integrity of the World Heritage Site:

1. It would move the eastern portal beyond the line of the ceremonial Avenue and therefore achieve a much enhanced setting for the Stones
2. It would enhance the setting of the monuments at King Barrows Ridge
3. It would enhance the amenity and setting of a major drop off point for visitors

Western portal

The archaeological gains in moving the *western portal* away from close proximity to the 'pinch point' barrows of the Normanton Group would be significant. An additional 200m would clearly improve the setting of this cemetery. Removing the portal to beyond the western boundary of the World Heritage Site would increase the archaeological and landscape gains. It would deliver an uninterrupted view between the Winterbourne Stoke and the Normanton Down cemeteries, which archaeologists believe was important in antiquity, and would remove the A303 from the west side of the World Heritage Site, eliminating severance.

However, this additional 1800m brings the potential of environmental impacts which we currently have inadequate information about. For example, the feasibility of ventilating a 4.5km tunnel via jet fans without intermediary structures remains open to question. The effect on the ground water, high quality aquifers and the rivers Avon and Till of a tunnel lying in the water table for a significant distance is not yet known. Additionally, there is currently no information about how to manage the additional spoil generated by a very long excavation.

It is essential that the Government urgently carries out extra assessment work on the implications of the longer tunnel options. Only then will the Trust be able to determine its feasibility and ultimately its desirability.

Conclusion

In light of all the new evidence which has emerged and significant technological advances since 1998 the National Trust opposes a cut and cover method of construction. We are in favour of a long bored tunnel which protects and enhances the integrity of the World Heritage Site.

This is a unique, once in a lifetime, opportunity to restore Stonehenge to its rightful setting and we therefore urge the Government to properly examine all the evidence and look again at its initial assessment before making a decision. The opportunity to attain extremely significant additional benefits to the archaeology, landscape and visitor experience at Stonehenge should not be missed.

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