

Notes

A303 Amesbury to Berwick Down

Title: Natural Environment/Heritage Working Group - Joint Session 2

Date: 11/08/2016 **Time:** 9:30 – 13:00 **Location:** Cathedral Suite, Legacy Rose and Crown Hotel, Salisbury

Attendees: Historic England - Phil McMahon
 English Heritage – Kate Davies
 National Trust - Cassandra Genn
 Natural England - Charles Routh
 Wiltshire Council - Allan Creedy; Melanie Pomeroy-Kellinger
 Highways England - Andrew Alcorn; Andrew Clark
 AAJV Solutions – Simon Lawrence; Ian Stuart; Gurnaik (Nik) Sidhu
 AAJV Environment & Heritage - Nick Rowson (Landscape); Andy Luke (Environmental Co-ordination); Andrew Croft (Heritage); Chloe Delgery (Biodiversity)
 AAJV Stakeholder Team - Janette Shaw.

Chair: Janette Shaw

Circulation: Those above and Environment Agency - Katherine Burt

Meeting objective(s): To provide the opportunity for feedback on Design Fix B and route options.

| No. | Item | Action |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| | The session comprised a presentation from Highways England (HE) and AAJV, followed by Q & A, a workshop session looking at the route options, finishing with a brief summary and look forward to upcoming sessions. The items below capture the main points arising. | |
| | Presentation | |
| 1. | Janette Shaw opened the meeting, stating that it would pick up from Session 1 (consultation on Design Fix A – viable corridors). She welcomed new attendees and confirmed that Notes would be circulated for agreement. | Janette Shaw to circulate draft notes to stakeholders by 19-08-16 |
| 2. | Andrew Alcorn (HE) stressed that only options that can be afforded and delivered within the committed budget and programme would be progressed and consulted on. The scheme was part of a committed Expressway to the south-west to within 15 miles of Land End. The Road Investment Strategy, December 2014, A303 Amesbury to Berwick Down dualling referred to “Construction of a twin-bored tunnel at least 1.8 miles long as the road passes Stonehenge and a bypass for Winterbourne Stoke”. Although there might be some limited flex (100m or so) on length during design iteration, 2.9km (1.8 miles) is the parameter for tunnel options in Corridor D. | |
| | Corridor D Options | |

Notes

A303 Amesbury to Berwick Down

| | | |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 3. | <p><u>Corridor D.</u> Nick Rowson (AAJV) provided an explanation as to how the long list of historic options was reduced down to 4 options based on alignments to the north or south of Winterbourne Stoke and portals for a 2.9km tunnel to the east or west of The Avenue (D001, D003, D021 and D022). These options have been selected to progress for assessment at Design Fix C.</p> <p>Tunnels shorter than the publicly proposed figure of 2.9km (2.5km) were discarded on the grounds of engineering deliverability/buildability and their effect on assets of the WHS. Tunnels longer than 2.9km (4.5km+) were discarded on grounds of affordability and intrusive intermediate ventilation. Alignments and portals were developed having regard to the key environmental factors of the WHS, SAC, Parsonage Down SSSI/NNR, and community receptors.</p> | |
| 4. | <p><u>Options development in Corridor D.</u> Simon Lawrence (AAJV) stressed that alignments / portal locations are indicative and there is scope for change subject to assessment and input from stakeholders. Key considerations in developing tunnel options for WHS will be the approach alignments, cuttings and portals.</p> <p>Simon ran through the tunnel features and infrastructure - lighting, variable message signing, tunnel support buildings, emergency refuge areas and maintenance access. Tunnel approaches will be designed to accommodate vehicle cross over for contraflow operation (maintenance situation). A gap of approximately a tunnel diameter between portals is likely to be required for construction /air quality reasons, resulting in a flare at the tunnel entrance.</p> <p>Landscape integration is a matter of ongoing consideration. For the purpose of discussion a number of indicative cutting options were presented: Vertical wall solution (narrower footprint, potentially less desirable from a driver perspective), batters / cutting (angle would depend on landscape impact, chalk geology and the type of vegetation required), and a hybrid of wall and cutting.</p> | |
| 5. | <p>Andrew Alcorn (HE) confirmed architectural advisors would be appointed shortly (probably by the end of today) to provide inputs on tunnel portal structures and appearance.</p> | |
| <p>Questions and comments on Corridor D options</p> | | |
| 6. | <p>Cassandra Genn raised queries about the containment of lighting and noise, having impacts on WHS Outstanding Universal Value (OUV) in response to preliminary schematic visualisations of tunnel portal design options in particular.</p> <p>Simon Lawrence (AAJV) advised that some elements of the trunk road would normally require lighting, although modern cut-off LED lanterns result in less sky glare. Andrew Alcorn (HE) emphasised that we must carefully consider the safety performance when considering the lighting strategy. All participants acknowledged that lighting was an issue. On noise, Simon Lawrence referred to the acoustic impact of high walls/hard surfaces and the rebound effects of sound off hard concrete surfaces</p> | |

Notes

A303 Amesbury to Berwick Down

| | | |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| | Phil McMahon (Historic England) asked designers to “think outside the box” in addressing safety matters and requested a matrix approach to assessing tunnel approach solutions and portal design, taking into account direct impacts on archaeology, WHS OUV (including interplay between monuments and tranquillity), broader setting impacts, aural and lighting impacts, and impacts on key amenity locations. | |
| 7. | Simon Lawrence (AAJV) acknowledged that there would be key vantage points within the WHS and asked the stakeholders for viewpoints. In response Cassandra Genn (NT) identified that viewpoints and impacts would need to be selected and differentiated on the basis of technical heritage and landscape considerations and on the amenity of the WHS (users/operators). It was also confirmed by HE and AAJV that public consultation images will not be examples but will use the actual landscape setting based, as far as possible, on bespoke computer graphics to capture multiple viewpoints. | National Trust is preparing a list of key views for the AAJV – key views for OUV and LVIA receptors to be agreed with relevant consultees |
| 8. | Melanie Pomeroy-Kellinger (WC) observed that there was not enough heritage detail as yet to support any particular route. | |
| 9. | Charles Routh (NE) queried whether cut and cover would be used. Simon Lawrence for the AAJV indicated that a limited canopy structure is a potential option at the western end of the tunnel to aid landscape integration and that even using this approach and proposed tunnelling technology there is still an upper limit on tunnel length dictated by tunnel ventilation considerations. Longer tunnels may entail intermediate ventilation and / or a larger tunnel cross-section with bigger footprints and more materials for disposal leading to higher costs. | |
| 10. | Melanie Pomeroy-Kellinger (WC) queried whether vibration impacts would affect archaeology. Simon Lawrence advised that vibration was highly unlikely to be a material concern for archaeology. Andrew Alcorn (HE) indicated that “de-watering” may be a construction impact of greater relevance to surface/sub-surface assets. Due to the water table, dewatering to construct in dry conditions offers the best option for stable material extraction. Simon Lawrence for the AAJV advised that wells may be required at 30-40m spacing, comprising vertical shafts (200mm in diameter) through which water would be pumped to a surface pipe network. It is only necessary to pump the area being worked on at the time. Shafts will be filled and capped below ground level at the end of construction. Locations will need to be carefully selected in consultation with stakeholders. Water will need to be returned into the ground to recharge groundwater supply. | |
| 11. | Cassandra Genn (NT) raised the matter of construction impacts being as important as permanent impacts. Andrew Alcorn (HE) said that the main contractor compound would have a life of some 3 years and would be located outside the WHS. Melanie Pomeroy-Kellinger (WCC) requested brownfield sites be considered for this. Also note the significant associated temporary infrastructure such as haul roads, spoil dumps etc | |
| | Corridor F Options | |

Notes

A303 Amesbury to Berwick Down

| | | |
|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 12. | <p><u>Corridor F</u>. Nick Rowson (AAJV) provided an explanation as to how the long list of approximately 8 historic routes was refined down, based on transport modelling and environmental factors then split into three sectors: west, central and east where the AONB and settlements, the River Avon and Boscombe Airfield were used as filters to produce three basic routes F010, F004 and F005, having common sections and further potential for flexibility. Within the central sector the three options variously involve viaducts (in the order of 400-500m long, height 20-40m) over the river Avon Valley.</p> | |
| Questions and comments on Corridor F options | | |
| 13. | <p>Melanie Pomeroy-Kellinger (WC) queried the issue of local rat running in relation to Corridor F, the difference in length between the northern and southern route options and the difference between lengths of route in D and F.</p> <p>Simon Lawrence (AAJV) indicated that the F options bypassed a longer length of the existing A303 but that local access would still be needed. (F010 22km and F005 26km). Traffic modelling shows that with the increase in length of F route options more of the local traffic would divert to alternative routes. While things can be done to reduce rat running, they may not necessarily be acceptable to local residents. Corridor D options are 2.5km less than F010, equating to 2 mins difference in travel time.</p> | |
| Design Standards | | |
| 14. | <p>Simon Lawrence (AAJV) completed the presentation with information about the design standards for the road – Expressway, Highway Geometry and Junctions.</p> <p>Expressway Standards will be applied. These are currently in draft, and expected to be finalised in Autumn 2016.</p> <p>Compliance with standards will be used as a starting point. There could be Relaxations and Departures in order to mitigate adverse effects. There are likely to be requirements for Variable Message Signs, CCTV (will be comprehensive coverage), concrete central reserve barrier and emergency refuge areas with emergency roadside telephones. Alternative routes for non-motorised users (NMUs) will be required.</p> <p>Nick Rowson referred to how the grade separated junctions might appear in three dimensions and the current working assumption of 1 in 3 slopes for cuttings and embankments.</p> | |
| Workshop | | |
| <i>The following observations were made in respect of <u>the tunnel routes within the WHS (Corridor D)</u>:</i> | | |
| 15. | <p>Allan Creedy (WC) queried whether the “piece of string” approach to the tunnel was preventing a shorter option with more favourable portal locations. Phil Mc Mahon said that OUV impacts are a priority for Historic England. Cassandra Genn (NT) was concerned at length of tunnel as key determinant and not portal locations – could portal zones not be used for assessment?</p> <p>Simon Lawrence (AAJV) noted challenges with a zonal approach in that it could result in a tunnel longer than 2.9km which is not</p> | |

Notes

A303 Amesbury to Berwick Down

| | | |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| | <p>financially viable and that in order to adequately consider impact, specific schemes needed to form the starting point for assessment with scope to then consider amendments to portal locations in order to minimise impacts – for example the use of cut and cover to deliver an improvement on a simple 2.9km bored tunnel. Design is iterative and input is being sought through consultation on the issues associated with portal location to inform the process.</p> <p>Both Phil McMahon (Historic England) and Cassandra Genn expressed interest in the potential of cut and cover extension to 2.9km tunnel to address potential harm to OUV .</p> | |
| 16. | <p>Phil McMahon (Historic England):</p> <p>Western portal up close to Normanton Down (ND) may have a negative impact upon OUV.</p> <p>Portal next to ND cemetery generates a substantial negative impact that it may be difficult for Historic England to support.</p> <p>Pleased to see consideration of a portal to the east of Avenue as this could resolve a substantive concern of ICOMOS / UNESCO.</p> | |
| 17. | <p>Melanie Pomeroy-Kellinger re-iterated that, in determining portal locations there is a need to understand that there is no critically important archaeology present. She asked whether consideration had been given to online solutions.</p> | |
| 18. | <p>In the context of on-line portals, Simon Lawrence (AAJV) said that the 2-3 year construction period would require a temporary diversion of the existing A303 (would need to be width of normal road, and support HGVs etc.) which is likely to require substantial intervention with associated impacts.</p> | |
| 19. | <p>Previous scheme included a portal built just offline. Phil McMahon (Historic England) said he would like to see as small a gap between the existing route and the new east portal tunnel ramp as possible, taking advantage of topography. This would minimise the direct impacts upon the WHS landscape by having the new intervention directly alongside the existing highway/old A303.</p> | |
| 20. | <p>Melanie Pomeroy-Kellinger brought up the issue of cost difference between the tunnel and surface options. Andrew Alcorn (HE) said that specific costings had not been completed but there could be an indicative saving of around £500M with the F route options compared to the D route options but indicated an F route might be difficult to deliver. Simon Lawrence (AAJV) referred again to the longer routes producing interesting traffic figures which might have greater disbenefits over a 60 year period. Phil McMahon said that ICOMOS will be interested in future proofing to ensure that the solution provides lasting solution for traffic and the WHS.</p> | |
| 21. | <p>It was confirmed by AAJV that the southern bypass of Winterbourne Stoke option derives from the 2.9km offline western tunnel exit and has not formed part of previously assessed routes. Phil McMahon observed that there is a Roman village present in this area which is clear on aerial photography and that the scheme designers should liaise closely with the County Archaeology Service to understand the potential impacts of the scheme upon</p> | |

Notes

A303 Amesbury to Berwick Down

| | | |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| | undesigned archaeology both within and without the WHS boundary. | |
| 22. | AAJV noted potential impacts from the Winterbourne Stoke northern bypass on the barrow group to the north of Winterbourne Stoke. Phil McMahon confirmed that Historic England (EH) did not make representations on barrow group setting impacts to north of Winterbourne Stoke in the 2004 Inquiry. | |
| 23. | Kate Davies for English Heritage, Cassandra Genn for National Trust and Charles Routh for Natural England all raised concerns regarding the eastern-most of the west portal options in terms of ecology, being closer to the Normanton Down RSPB reserve with concerns around lighting and air quality impacts. | |
| 24. | National Trust/Historic England stakeholders requested that treatment of western portal be considered to allow further separation from Normanton Gorse. | |
| 25. | Cassandra Genn for National Trust queried the reasons for excluding an option with the eastern most portal in the east, and western most portal in the west ie 3.6km tunnel. Has the combination of the outermost portals been costed to identify the additional cost and engineering impacts (for example the requirement for surface ventilation) assessed? There are likely to be challenges to seek assurance that options beyond 2.9km are unviable on engineering and financial grounds before exclusion. | |
| 26. | Phil McMahon: The option west of the Avenue must be assessed against OUV. Under the Planning Act S104 (4), the scheme needs to demonstrate that it is not in breach of international treaties. The World Heritage Convention is one such treaty and being able to demonstrate that the scheme is not harmful to the special qualities of the WHS (its OUV) is essential. Andrew Croft (AAJV) outlined approach to assessment in terms of heritage for Design fix C. | |
| 27. | Cassandra Genn (NT) requested that draft-in confidence drawings of all the options (as tabled) be supplied to enable wider stakeholder comments to be provided. | AAJV (Nick Sidhu) to provide – stakeholder comments to be returned by 8 th September |
| 28. | <i>The following observations were made in respect of <u>the surface routes outside the WHS (Corridor F)</u>:</i> | |
| 29. | Stakeholders raised issues on the setting of the AONB and the impacts of the River Avon viaduct – 20m (F010)/40m (F05). | |
| 30. | Phil McMahon was concerned at the level of information about assets in Corridor F (including listed buildings). Viaduct impact on the setting of Old Sarum could be significant. | |
| 31. | Cassandra Genn said National Trust would find it difficult to support a route with significant environmental and landscape impacts, though outside of the WHS; in particular creating severance in Corridor F when severance is otherwise resolved by a tunnel (or at least a substantial length of). | |

Notes

A303 Amesbury to Berwick Down

| | | |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| | All schemes create opportunity to do something with Longbarrow roundabout – enhancing barrow group setting. | |
| 32. | Charles Routh (NE) observed that the longer the road the greater the impact and problems with access to the countryside; Woodford valley – peaceful tranquil value landscape; AONB setting issues. | |
| | Summary and Next Steps | |
| 33. | There was a general consensus that no further remarks could be made on the options or process until information was available about the assessment (Design Fix C) which would be the subject of Session 3 on 21 st September (invitations have been sent out). | |
| 34. | At the last session there was a call for an Opportunities session of the joint group – to look at what the scheme can facilitate for the future planning of the area. This would be most apposite after 26 th October when details of the way forward, in terms of route selection, are expected to have been made by Highways England. | |

NEXT MEETING

| | | | | | |
|--------------|----------------------|--------------|-----------------|------------------|----------------------------------------------|
| Date: | 21 September 2016 | Time: | 9.30 – 13.30 | Location: | Legacy Rose and Crown Hotel, Salisbury |
|--------------|----------------------|--------------|-----------------|------------------|----------------------------------------------|
