

A303 Sparkford to Ilchester Dualling Scheme TR010036

6.1 Environmental Statement Chapter 7 Landscape

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(Applications: Prescribed Forms
and Procedure) Regulations
2009**

**A303 Sparkford to Ilchester Dualling
Scheme**

Development Consent Order 201[X]

**6.1 Environmental Statement
Chapter 7 Landscape**

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7 Landscape

7.1 Introduction

- 7.1.1 This chapter considers the likely significant effects of the proposed A303 Sparkford to Ilchester Dualling scheme (hereafter referred to as ‘the scheme’) upon the surrounding landscape character and visual receptors.
- 7.1.2 The assessment has been undertaken in accordance with the Design Manual for Roads and Bridges (DMRB) Volume 11, Section 3, Part 5 *Landscape effects*¹ and Interim Advice Note (IAN) 135/10 *Landscape and Visual Effects Assessment*². The assessment also takes guidance from the *Guidelines for Landscape and Visual Impact Assessment*³.
- 7.1.3 Chapter 2 The Scheme of Volume 6.1 contains a detailed description of the scheme. The supporting figures referenced in this chapter can be found in Volume 6.2, while the technical appendices are presented in Volume 6.3.

7.2 Competent expert evidence

- 7.2.1 The competent expert holds a master’s level degree in Landscape Architecture, and is a chartered member of the Landscape Institute (CMLI). The competent expert has over 12 years’ postgraduate experience as a Landscape Architect and in the production of Landscape and Visual Impact assessments specialising in major highways projects including Nationally Significant Infrastructure Projects (NSIPs).

7.3 Legislative and policy framework

- 7.3.1 The principal legislative and planning context for the assessment of effects of the scheme on landscape is presented below.

National policy

National Policy Statement for National Networks

- 7.3.2 Paragraph 5.144 of the *National Policy Statement for National Networks*⁴ (NPSNN) states that where a development is subject to an Environmental

¹ Highways England (1993) Design Manual for Roads and Bridges Volume 11 Section 3 Part 5 *Landscape Effects* [online] available at:

<http://www.standardsforhighways.co.uk/ha/standards/dmr/vol11/index.htm> (last accessed March 2018).

² Highways England (2010) IAN 135/10 *Landscape and Visual Effects Assessment* [online] available at:

<http://www.standardsforhighways.co.uk/ha/standards/dmr/vol11/index.htm> (last accessed March 2018).

³ Landscape Institute (2012) *Guidelines for Landscape and Visual Impact Assessment* (GLVIA). 3rd

edition (last accessed March 2018).

⁴ Department for Transport (2014) *National Policy Statement for National Networks*: Presented to Parliament pursuant to Section 9 (8) and Section 5 (4) of the *Planning Act 2008* [online] available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/387222/npsnn-print.pdf [online] (last accessed March 2018).

Impact Assessment (EIA), an assessment of any likely significant landscape and visual impacts should be undertaken by the applicant within the EIA and described within the Environmental Statement (ES). The Applicant's assessment should consider any relevant national and local development policy, significant effects during construction and operation, and visibility and conspicuousness (paragraphs 5.146-148 of the NPSNN). Compliance with the respective duties in section 11A of the *National Parks and Access to Countryside Act 1949* and section 85 of the *Countryside and Rights of Way Act 2000* is required. Local designations should be given consideration in decision making by the Secretary of State (paragraph 5.156 of the NPSNN), but not be used in themselves to refuse consent. The Secretary of State would judge whether visual effects on sensitive receptors outweigh the benefits of the development (paragraph 5.158 of the NPSNN).

Highways England policy

Highways England Licence

- 7.3.3 The Highways England *Licence*⁵ outlines the commitments, duties and obligations of Highways England to the Department of Transport. Environmental commitments are detailed in section 5.23:
- 7.3.4 *"In complying with 4.2(g) and its general duty under section 5(2) of the Infrastructure Act 2015 to have regard to the environment, the Licence holder should:*
- a. Ensure that protecting and enhancing the environment is embedded into its business decision-making processes and is considered at all levels of operations;*
 - b. Ensure the best practicable environmental outcomes across its activities, while working in the context of sustainable development and delivering value for money;*
 - c. Consider the cumulative environmental impact of its activities across its network and identify holistic approaches to mitigate such impacts and improve environmental performance;*
 - d. Where appropriate, work with others to develop solutions that can provide increased environmental benefits over those that the Licence holder can achieve alone, where this delivers value for money;*
 - e. Calculate and consider the carbon impact of road projects and factor carbon into design decisions, and seek to minimise carbon emissions and other greenhouse gases from its operations;*
 - f. Adapt its network to operate in a changing climate, including assessing,*

⁵ Department for Transport (2015) Highways England: Licence [online] available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/431389/strategic-highways-licence.pdf [online] (last accessed June 2018).

- managing, and mitigating the potential risks posed by climate change to the operation, maintenance, and improvement of the network;*
- g. Develop approaches to the construction, maintenance and operation of the Licence holder's network that are consistent with the government's plans for a low carbon future;*
- h. Take opportunities to influence road users to reduce the greenhouse gas emissions from their journey choices.”*

Highways England Delivery Plan 2015-2020

- 7.3.5 Section 6.1.5 Landscape of Highways England's *Delivery Plan 2015-2020*⁶ identifies key areas of focus for enhancement of the character and quality of the built and natural landscape. One of the 3 key areas of focus directly related to the scheme is *“Promoting schemes that are better integrated with the surrounding environment at a landscape scale, which also deliver associated ecosystem service benefits. We will do this in-line with National Character Area profiles.”*

Local policy

South Somerset District Council Local Plan 2006 – 2028

- 7.3.6 *South Somerset District Council's Local Plan*⁷ contains Policy EQ5: Green infrastructure, which is relevant to landscape. The Council would promote the provision of green infrastructure throughout the district, based upon the enhancement of existing areas including public open space, accessible woodland, and river corridors, and by ensuring that development provides open spaces and green corridor links between new and existing green spaces.
- 7.3.7 Policy EQ5 states: *“Development proposals should provide and / or maintain a network of connected and multifunctional open spaces that, where appropriate, meet the following requirements:*
- Create new habitats and connects existing wildlife areas to enrich biodiversity & promote ecological coherence.*
 - Provide and / or maintain an accessible network of green spaces and improve recreational opportunities, including environmental education, local food production and support physical health and mental wellbeing.*
 - Ensure that all children and young people have reasonable access to a range of play and leisure opportunities.*

⁶ Highways England (2015) *Highways England Delivery Plan 2015-2020* [online] available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/424467/DSP2036-184_Highways_England_Delivery_Plan_FINAL_low_res_280415.pdf (last accessed June 2018).

⁷ South Somerset District Council (2015) *South Somerset Local Plan (2006 – 2028)* [online] available at: https://www.southsomerset.gov.uk/media/707200/south_somerset_local_plan_2006-2028_adoption_version_march_2015.pdf [online] (last accessed March 2018).

- *Provide and / or maintain opportunities for enhanced, attractive walking and cycling routes linking urban areas and the wider countryside.*
- *Enhance and / or maintain the character and local distinctiveness of the landscape.*
- *Contribute to and / or maintain local identity and sense of place;*
- *Increase the district's tree cover.*
- *Help mitigate the consequences of climate change (sustainable drainage systems, shade).*
- *Alleviate current and future potential visitor and recreation pressure / disturbance to internationally designated conservation areas."*

7.3.8 *"Existing green infrastructure would be protected against any adverse impact of development proposals. If loss of existing green infrastructure assets is unavoidable in order to accommodate necessary development, appropriate mitigation for the loss would be required. Development should include green infrastructure of an appropriate type, standard and size and be designated at least to meet Natural England Accessible Natural Greenspace Standard (ANGSt)⁸ or otherwise appropriately contribute to improving access to natural greenspace such that the overall aims are met."*

7.3.9 Policy EQ3: Historic Environment, is also of relevance to landscape, and is detailed within section 6.3 of Chapter 6 Cultural Heritage, Volume 6.1.

7.4 Assessment methodology

7.4.1 This section describes the methodology which has been used for the assessment of landscape which may affect, or be affected by, the construction and operation of the scheme.

7.4.2 The scope of the materials assessment was presented in **Chapter 8 Landscape of the EIA Scoping Report (Document Reference: HE551507-MMSJV-EGN-000-RP-LP-0014)** submitted to the Planning Inspectorate in November 2017. The Scoping Opinion is contained within Appendix 4.1 of Volume 6.3. A schedule of responses detailing how each of the Scoping Opinion comments have been considered as part of this chapter is contained within Appendix 4.2 of Volume 6.3. No amendments to the methodology as presented within the EIA Scoping Report have been necessary.

7.4.3 No single methodology exists for assessing landscape and visual impact. However, this landscape assessment has been produced in accordance with

⁸ Natural England (March 2010) *Nature Nearby - Accessible Natural Greenspace Guidance* [online] available at <http://publications.naturalengland.org.uk/file/95015> (last accessed March 2018).

DMRB Volume 11 Section 3 Part 5: *Landscape*⁹ and IAN 135/10¹⁰ to a detailed level. The assessment has also been informed by the recommendations set out in Guidelines for Landscape and Visual Impact Assessment (GLVIA 3)¹¹ for the assessment of sensitivity of landscape and visual receptors.

Overview

- 7.4.4 Landscape encompasses many more elements than the common association which focuses merely upon the view or appearance of the land. The notion of landscape can be applied to both rural and urban environments with the term townscape frequently adopted within the urban context. From the perspective of EIA, landscape applies to physical elements such as topography, drainage, land use and management, vegetation, as well as ecology and historical and cultural associations.

Baseline methodology

- 7.4.5 Both the landscape and visual baseline were established through a desk study, site survey and informed by the Scoping Opinion (Appendix 4.1, Volume 6.3). The desk study used mapping and literature in order to gather an understanding of the study area and its surroundings. This included a review of Ordnance Survey mapping, several Landscape Character Assessments at a regional and local level, and the identification of any key designations that may be impacted by the scheme.
- 7.4.6 Current good practice indicates that a study area should extend to contain all areas in which visual impacts have the potential to occur based on topographical indications only. This is known as the Zone of Theoretical Visibility (ZTV). However, in order to identify the true visibility of the scheme, a ground model was run in a Geographical Information Systems (GIS) model using topographical LiDAR data and assumed heights of intervening vegetation and built form, to identify the likely area affected when considering intervening topography. A model was created in the earlier phases of the scheme which indicated a wide viewshed, this informed the initial selection of viewpoints.
- 7.4.7 This model was then refined later in the design and assessment process to account for the loss of existing vegetation and proposed changes in landform for the completed scheme as the basis for the ZTV. This was comprised using:

⁹ Highways England (2010) Interim Advice Note 135/10 *Landscape and Visual Effects Assessment* [online] available at: <http://www.standardsforhighways.co.uk/ha/standards/dmr/vol11/index.htm> (last accessed March 2018).

¹⁰ Highways England (1993) Design Manual for Roads and Bridges Volume 11 Section 3 Part 5 *Landscape Effects* [online] available at: <http://www.standardsforhighways.co.uk/ha/standards/dmr/vol11/index.htm> (last accessed March 2018).

¹¹ Landscape Institute (2013) *Guidelines for Landscape and Visual Impact Assessment (GLVIA)*. 3rd edition (last accessed March 2018).

- A surface model of the proposed scheme against the combined with a 2 metre LiDAR Digital Terrain Model
- 2,500 survey points at 4 metres above the scheme to simulate the visual impacts of construction plant or Heavy Goods Vehicles (HGVs) using the scheme. This would not represent the visual impacts of all traffic, but the impacts from high sided HGVs, which is considered in this assessment to represent the worst case scenario.
- Detailed arboricultural survey data from the Arboricultural Constraints Report (Appendix 7.1, Volume 6.3) and the Arboricultural Impact Assessment (AIA) (Appendix 7.3, Volume 6.3) for retained vegetation, combined with Ordnance Survey Master Map vegetation.
- Building footprints have been extruded to assumed building height of 7 metres.

7.4.8 This ZTV is presented in Figure 7.1 of Volume 6.2 and indicates the percentage of survey points visible within from the surrounding area. A plan indicating the topographical changes across the study area and wider landscape can be seen in Figure 7.2, Volume 6.2.

7.4.9 Viewpoints within a 1 kilometre study area and elevated views were identified in a desk based exercise with the use of Ordnance Survey mapping, Google Maps, aerial photographs, contour mapping and the ZTV described above. Site visits were carried out in March 2017 and October 2017 during which the identified from a desk based exercise local visual receptors potentially affected by the scheme were confirmed and photographed. Photographs of the site were also taken from each receptor in winter where possible to represent the worst case scenario. Additional site visits were undertaken in June 2017, July 2017, March 2018 and May 2018, where changes in the design necessitated further assessment of the potential visual and landscape effects of the scheme and where the consultation process raised the need to consider other views. Those views that are considered to be key views are contained within Figures 7.8a to 7.8g in Volume 6.2.

7.4.10 Within the DMRB Volume 11 Section 3 Part 5¹² and IAN 135/10¹³ there is no defined criteria for the selection of key views. However, upon consideration of the scheme and in consultation with South Somerset District Council, key views have been selected making use of 1 or more of the following 3 criteria:

- The potential effects are predicted to be significant.
- The view is expansive covering a large area of the landscape around the scheme, or highly valued by users such as a footpath through a part of the landscape with a known historic dimension.

¹² Highways England (1993) Design Manual for Roads and Bridges Volume 11 Section 3 Part 5 *Landscape Effects* [online] available at:

<http://www.standardsforhighways.co.uk/ha/standards/dmr/vol11/index.htm> (last accessed March 2018).

¹³ Highways England (2010) Interim Advice Note 135/10 *Landscape and Visual Effects Assessment* [online] available at: <http://www.standardsforhighways.co.uk/ha/standards/dmr/vol11/index.htm> (last accessed March 2018).

- The scheme is in close proximity to the visual receptor or represents the addition of a new, uncharacteristic element in the view.

7.4.11 Meeting 1 or more of the above criteria, however, does not automatically classify a view as a key view. This criteria combined with professional judgment have been applied to determine which views are considered to be key in this assessment. The visual receptors and key views were agreed with the Landscape Officer from South Somerset District Council as part of the Environmental Technical Working Group (TWG) between December 2017 and May 2018.

7.4.12 From the selected key views, 4 were selected to be presented as photomontages in Year 1 and Year 15 of the scheme. The number of photomontages undertaken were considered to be proportionate and illustrate the various changes in view associated with the scheme. This process required a specialist photography team taking verifiable panoramas that are GPS positioned. These panoramas are combined with a 3D representation of the proposed scheme and edited with an image editing suite to visualise the scheme in Year 1 and Year 15. Further information on this process is available in Appendix 7.5 of Volume 6.3. Photomontage locations were selected to cover parts of the study area most likely to experience a significant change in the view in Year 1 or Year 15 or where the view represented a change in an enclosed landscape that would be opened up as a result of the scheme.

Impact methodology

7.4.13 Landscape and visual impacts are determined by a number of factors, which collectively provide a level of significance of effect.

Significance criteria

7.4.14 The significance of effects upon landscape character considers a combination of the magnitude of change against the quality, value and sensitivity to change of the affected landscape. Descriptors for landscape sensitivity are found in Table 7.1, and for the magnitude of impact within Table 7.2.

7.4.15 Visual impact significance has been determined by combining the sensitivity of the visual receptor to the proposed change in conjunction with the magnitude of change. Descriptors for the sensitivity of visual receptors to change are found in Table 7.3. Magnitude has been assessed on the basis of the scale of the change in view, as well as the duration and distance of visual receptors concerned from the scheme. The criteria are described within Table 7.4.

Table 7.1: Landscape sensitivity to change evaluation and value criteria

Sensitivity to change	Evaluation criteria	Landscape value
High	<p>Landscapes which by nature of their character would be unable to accommodate change of the type proposed. Typically, these would be;</p> <ul style="list-style-type: none"> • Of high quality with distinctive elements and features making a positive contribution to character and sense of place. • Likely to be designated, but the aspects which underpin such value may also be present outside designated areas, especially at the local scale. • Areas of special recognised value through use, perception, or historic and cultural associations. • Likely to contain features and elements that are rare and could not be replaced. 	International or national: the landscape might be located in World Heritage Site (WHS), Area of Outstanding Natural Beauty (AONB), historic park and garden, Conservation Area or similarly designated area.
Medium	<p>Landscapes which by nature of their character would be able to partly accommodate change of the type proposed. Typically, these would be;</p> <ul style="list-style-type: none"> • Comprised of commonplace elements and features creating generally unremarkable character but with some sense of place. • locally designated, or their value may be expressed through non-statutory local publications. • Containing some features of value through use, perception, or historic and cultural associations. • Likely to contain some features and elements that could not be replaced. 	Regional or district: the landscape might be located in green belt, regional park, historic park and garden, Conservation Area or similar or in an undesignated area, but is of significance through literary or cultural associations or through demonstrable use.
Low	<p>Landscapes which by nature of their character would be able to accommodate change of the type proposed. Typically, these would be;</p> <ul style="list-style-type: none"> • Comprised of some features and elements that are discordant, derelict or in decline, resulting in indistinct character with little or no sense of place. • Not designated. • Containing few, if any, features of value through use, perception, or historic and cultural associations. • Likely to contain few, if any, features and elements that could not be replaced. 	District or local: generally undesignated landscapes which might be valued by the local community, containing elements or features that might benefit from restoration or enhancement.

Source: Based on GLVIA3, IEMA and LI, 2013 and IAN 135/10

Table 7.2: Magnitude of change upon landscape criteria

Magnitude	Criteria
Major	Total loss or large scale damage to existing character or distinctive features and elements, and / or the addition of new but uncharacteristic conspicuous features and elements.
Moderate	Partial loss or noticeable damage to existing character or distinctive features and elements, and / or the addition of new but uncharacteristic noticeable features and elements.
Minor	Slight loss or damage to existing character or features and elements, and / or the addition of new but uncharacteristic features and elements.
Negligible Adverse	Barely noticeable loss or damage to existing character or features and elements, and / or the addition of new but uncharacteristic features and elements.
No change	No noticeable loss, damage or alteration to character or features or elements.

Magnitude	Criteria
Negligible Beneficial	Barely noticeable improvement of character by the restoration of existing features and elements, and / or the removal of uncharacteristic features and elements, or by the addition of new characteristic elements.
Minor Beneficial	Slight improvement of character by the restoration of existing features and elements, and / or the removal of uncharacteristic features and elements, or by the addition of new characteristic elements.
Moderate Beneficial	Partial or noticeable improvement of character by the restoration of existing features and elements, and / or the removal of uncharacteristic and noticeable features and elements, or by the addition of new characteristic features.
Major Beneficial	Large scale improvement of character by the restoration of features and elements, and / or the removal of uncharacteristic and conspicuous features and elements, or by the addition of new distinctive features.

Source: IAN 135/10 Highways England

Table 7.3: Visual receptor sensitivity to change evaluation criteria

Sensitivity	Receptor
High	<ul style="list-style-type: none"> • Users of PRow or other recreational trails (for example National Trails, footpaths, bridleways). • Occupiers of residential properties. • Communities where views contribute to the landscape setting enjoyed by the community. • Users of recreational facilities where the purpose of that recreation is enjoyment of the countryside (for example Country Parks, National Trust, or other access land). • Visitors to heritage assets or other attractions where the surroundings make an important contribution to the experience. • Protected or designated views.
Medium	<ul style="list-style-type: none"> • Users of scenic roads, railways or waterways or users of designated tourist routes. • Outdoor workers. • Schools and other institutional buildings, and their outdoor areas. • People staying in hotels. • Users of restaurants and bars and recreational users of rivers where the views contribute to the landscape setting.
Low	<ul style="list-style-type: none"> • Indoor workers. • Users of main roads (for example trunk roads) or passengers in public transport on main arterial routes. • Users of recreational facilities where the purpose of that recreation is not related to the view (for example sports facilities).

Source: Based on GLVIA3, IEMA and LI, 2013 and IAN 135/10 Highways England

Table 7.4: Magnitude of change to visual amenity criteria

Magnitude	Criteria
Major	The development would be the dominant feature of the view in which other elements become subordinate.
Moderate	The development would be a noticeable feature of the view which is immediately apparent to the receptor.
Minor	The development would be perceptible but would not alter the overall balance of features and elements that comprise the view.
Negligible	Only a very small part of the project would be discernible, or it is at such a distance that it would form a barely noticeable feature or element of the view.
No change	No part of the project, or work or activity associated with it, is discernible.

Source: Based on GLVIA3, IEMA and LI, 2013 and IAN 135/10 Highways England

Assessment of significance

7.4.16 Effects have been evaluated by combining the assessment of both magnitude (Table 7.1 and Table 7.3) and sensitivity (Table 7.2 and Table 7.4) to predict the significance of effect, as shown in Table 7.5 below. Magnitude has been assessed on the basis of the scale of the change, distance from site and the duration for which the receptor will be affected for landscape character / view. These effects can be beneficial or adverse and temporary or permanent depending on the nature of the development and the mitigation and any enhancement measures proposed.

Table 7.5: Matrix for the assessment of significance of landscape and visual effects

Value / sensitivity	Magnitude of impact				
	No change	Negligible	Minor	Moderate	Major
Very High	Neutral	Slight	Moderate or Large	Large or Very Large	Large or Very Large
High	Neutral	Slight	Slight or Moderate	Moderate or Large	Large or Very Large
Medium	Neutral	Negligible or Slight	Slight	Slight or Moderate	Moderate or Large
Low	Neutral	Negligible or Slight	Neutral or Slight	Slight	Slight or Moderate
Negligible	Neutral	Negligible	Neutral or Slight	Neutral or Slight	Slight

Source: Based on GLVIA, IEMA and LI, 2013 and IAN 135/10

7.4.17 The assessment used structured, informed, and reasoned professional judgement, taking into account a combination of data, derived from desk study and fieldwork to derive the expected magnitude of impacts and significance of effects. In this assessment an effect of Moderate Adverse, Large Adverse or Very Large Adverse is considered to be significant.

Consultation

7.4.18 As part of the environmental TWG, engagement and discussion for landscape elements of the scheme were undertaken with South Somerset District Council's Landscape Officer, Somerset Gardens Trust, Historic England's Landscape Officer and South West Heritage Trust representatives. These discussions were particularly helpful in the development of proposals in Hazlegrove House Registered Park and Garden (RPG), the selection of key views and the reduction and mitigation of visual effects. Further details of discussions are available in Appendix 4.9 of Volume 6.3.

7.5 Assessment assumptions and limitations

- 7.5.1 The landscape assessment has been based on the description of the scheme detailed in Section 2.5 of Chapter 2 (Volume 6.1), including the horizontal and vertical limits of deviation. It is assumed that within the vertical and horizontal limits of deviation all mitigation measures would still be provided and function as described in section 7.9 and as such there would be no change to the assessment of significant effects.
- 7.5.2 Not every residential receptor has been addressed in its own right. Instead properties were captured as small groups in some instances where one viewpoint would be representative of the most severely impact for the group as a whole. In this way, although there is not a separate photographic view for each individual receptor, the assessment covers every receptor expected to be impacted by the scheme.
- 7.5.3 Photographs were taken from beyond the curtilage of properties, on the nearest publicly accessible roads and footpaths, and do not represent views from within the top floor of dwellings. The predicted influence of the scheme on views from inaccessible areas are only reported in this assessment if the impacts are expected to differ noticeably from the representative view collected on site.
- 7.5.4 Receptors identified within the study area and ZTV have been assessed as part of the scheme. However, when considering the construction requirement for the use of a crane during the construction of bridges, the potential area of impact would temporarily increase the number of receptors in the ZTV. Given the very short duration and likelihood of only a negligible change in the view, these receptors have not all been detailed within this assessment. However, it is noted that a number of additional receptors may afford views to the top of a crane only for a very short period during construction. The visual effects of the crane are not considered to be significant. In accordance with the DMRB and IAN 135/10 *Landscape and Visual Effects Assessment*¹⁴, impacts from construction activity are assessed at their peak assuming the maximum perceptible change.
- 7.5.5 In this chapter, only landscape character and visual elements are assessed. However, it should be noted that there are overlaps between landscape and cultural heritage elements. Elements of landscape and cultural heritage relevance within the study area including Hazlegrove RPG and Conservation Areas are assessed on their landscape and visual merits and contribution to the landscape, not their historic or cultural value or significance. The historic

¹⁴ Highways England (2010) Interim Advice Note 135/10 *Landscape and Visual Effects Assessment* [online] available at: <http://www.standardsforhighways.co.uk/ha/standards/dmr/vol11/index.htm> (last accessed March 2018).

landscape character baseline condition and assessment is contained in Chapter 6 Cultural Heritage of Volume 6.1.

7.6 Study area

- 7.6.1 This assessment covers not only the scheme footprint and redline boundary, but also a wider area of approximately 1 kilometre from the centreline of the mainline works for landscape character impacts as described in DMRB Volume 11, Section 3, Part 5 *Landscape effects*¹⁵, and a ZTV to provide a theoretical extent to the visual effect of the scheme. Therefore, further distant views outside of 1 kilometre are considered from elevated ground at Cadbury Castle at 2.8 kilometres from the scheme and Parrock Hill at 3.4 kilometres from the scheme due to their expansive view, elevated position and the valued nature of the views as discussed with the environmental TWG.
- 7.6.2 The study area and longer distance views beyond 1 kilometre were discussed and agreed with South Somerset District Council and other consultees as part of the environmental TWG. Details of discussions and agreements made with stakeholders in the environmental TWG are available in Appendix 4.9 of Volume 6.3.

7.7 Baseline conditions

Site description

- 7.7.1 The existing A303 corridor is the centre of the study area which runs from the north of Sparkford to the north of Podimore. The A303 transportation corridor is a discordant feature within a predominantly rural landscape. The A359 forms a lower grade transportation route in the eastern extents of the study area while the A37 lies just outside the study area to the west. A network of local support roads link farmsteads, small villages and clusters of houses within the study area.
- 7.7.2 Residential areas are predominantly concentrated to the south of the A303 and the study area, with the prominent historic villages of Sparkford, Queen Camel and West Camel. To the north of the A303 and the study area, residential properties comprise predominantly of isolated farmsteads and small collections of houses. Hazlegrove House RPG and Hazlegrove School influences the character of the north-eastern section of the study area. Queen Camel and West Camel are designated as Conservation Areas around their characteristic historic core.

¹⁵ Highways England (1993) Design Manual for Roads and Bridges Volume 11 Section 3 Part 5 *Landscape Effects* [online] available at: <http://www.standardsforhighways.co.uk/ha/standards/dmr/vol11/index.htm> (last accessed March 2018).

- 7.7.3 Land use has some variation across the study area but it is predominantly a mixture of arable and pastoral farming. Farmland north of the A303 mainly comprises large, irregular arable fields, whereas land to the south of A303 mainly comprises medium, irregular pastoral fields.
- 7.7.4 The Royal Naval Air Station (RNAS) at Yeovilton is a substantial conflicting feature in the southwest of the study area. Not only are the large warehouses, runways and military infrastructure at odds within the flat agricultural landscape, but the regular air traffic is a frequent disruptor of tranquillity in the area.
- 7.7.5 There is a well connected network of Public Rights of Way (PRoW) within the study area, including parts of the Leland Trail long distance footpath which stretches from Alfred's Tower in Stoke sub Hamdon to Ham Hill in the Cranbourne Chase AONB. Although the Leland Trail to the south of the A303 is the most notable PRoW within the study area, other rights of way are distributed across the landscape.

Relevant designations

- 7.7.6 There are a number of designated sites within the study area, summarised in Table 7.6 below. Table 7.6 also includes the relevant landscape and visual receptors associated with these designations. These include 2 conservation areas, 1 is in the village of Queen Camel and 1 within the village of West Camel. There are approximately 100 listed buildings within the study area, of which a high density is located within the Queen Camel and West Camel Conservation Areas.
- 7.7.7 Other relevant designations are 2 scheduled monuments found within the 1 kilometre study area. The Romano-British settlement immediately south west of Camel Hill Farm Scheduled Monument is approximately 15 metres north of the scheme and the Medieval settlement remains 100 metres and 250 metres north of Downhead Manor Farm Scheduled Monument is approximately 250 metres north of the scheme. Further information on heritage designations is contained within Chapter 6 Cultural Heritage of Volume 6.1.
- 7.7.8 The Hazlegrove House RPG is located within the footprint of the scheme in the north-east of the study area where the existing A303 has already bisected the RPG.

Table 7.6: Landscape designations within 1 kilometre

Landscape designations within 1km	Distance from scheme	Sensitivity	Relevant LCAs and Viewpoints
Queen Camel Conservation Area	Approximately 450m	High	LCA 5 Queen Camel and Viewpoint 37
West Camel Conservation Area	Approximately 650m	High	LCA 6 West Camel and Wales and Viewpoints 21 and 22.
Hazlegrove Registered Park and Garden	Within footprint	High	LCA 2 Hazlegrove and Viewpoints 35 and 38.
Leland Trail Long Distance Footpath	Approximately 650m	High	LCA 3 Sparkford, LCA 4 Weston Blampfylide, LCA 5 Queen Camel, LCA 6 West Camel and Wales and Viewpoints 16, 22, 23, 24, 31, and 43

7.7.9 These landscape designations are shown on the landscape constraints plan (Figure 7.3, Volume 6.2). Ecological designations are presented on the Environmental Constraints Plan (Figure 2.2, Volume 6.2). Topography is shown on Figure 7.2, Volume 6.2.

Landscape character

National landscape character

7.7.10 The proposed site is located within Natural England's National Landscape Character Area (LCA) 140 Yeovil Scarplands. Key characteristics of this National LCA are outlined in Table 7.7 below.

Table 7.7: National LCA features

Feature	Description
Topography	Contrasting and varied but complementary rhythm of the scarps and vales, with the flatter margins of the Levels and Moors. Steeper scarp slopes and deep goyles (steep, narrow valleys) and wet valley floors.
Land Use	Less than 5% of area is urban. Rural, agricultural character across the majority of the area, with distinct pastoral, mixed and arable area'.
Vegetation Cover	Scattered woodlands, many on steeper scarp slopes and within deep goyles (steep, narrow valleys) and wet valley floors. Generally, hedgerows are thick, with substantial hedgebanks, and feature many, frequently veteran or ancient, hedgerow trees. Relict open fields in the south-west contrasting with extensive thick hedgerows with frequent mature to veteran trees elsewhere.
Development	Yeovil, lying in south of area, has grown to become a sizeable town with busy industrial zone. Many of the smaller villages, such as Bruton, Ditchat and Evercreech, have experienced low levels of new development.
Vernacular style	A range of principally Jurassic strata, particularly limestones and sandstones, giving rise to a suite of locally distinctive building stones, themselves imbuing distinctive local vernaculars.
Historic features	Widespread earthwork remains, including medieval settlements, Roman villas and prehistoric forts, settlements and ritual sites. A long history of settlement reflected through archaeology, from Neolithic hill forts, through Roman villas, to remnant medieval open fields – along with many listed buildings.

Feature	Description
Water environment	The main rivers are the rivers Yeo, Brue and Parrett which drain into the Somerset Levels and Moors. Several rivers draining east to west and a network of tributary streams, sometimes in goyles.

Source: Natural England's National LCA 140 Yeovil Scarplands profile¹⁶

Regional landscape character

7.7.11 The scheme sits within the Visual Character Region 7 - Central Plain Moors and River Basins, Area 3 Lower Lias Clay Vales, Rivers and Floodplains regional character area as defined in *The Landscape of South Somerset*¹⁷. Within the Character Region, the entirety of the scheme sits within the Lower Lias Clay Vales, Rivers and Floodplain Landscape Character zone. A summary is shown in Table 7.8.

Table 7.8: Regional LCA features

Feature	Description
Topography	Broad low vale encompassing the course of the River Cary. A long low limestone ridge is present running west from Sparkford.
Land Use	North of Sparkford ridge the broad vale has a distinctive very rural predominantly pastoral character. South of the Sparkford ridge lies an area of broad mixed farming, with arable mainly located on the drier clay ridges.
Vegetation Cover	The limestone ridge at Sparkford is quite wooded and covered with calcareous loving plants. North of Sparkford Ridge a network of hedgerows and old oaks surround fields line country lanes. South of the Sparkford Ridge lower managed hedgerows with infrequent trees surround mixed farming fields. Along the banks of attractive local rivers including the River Yeo and Parrett, alders and willows define the banks.
Development	Development is predominantly to the south of the Sparkford ridge and includes the villages of Sparkford, Queen Camel, and West Camel. To the west RNAS Yeovilton in the south of the LCA represents a considerable mass of concrete, large buildings and air hangers.
Vernacular Style	The vernacular styles of Queen Camel and West Camel to the south of the LCA are protected as Conservation Areas and include the use of locally distinctive building stones.
Historic Features	Listed buildings within the study area are predominantly to the south of the study area within small villages, they are particularly concentrated in West Camel and Queen Camel.
Water environment	A great number of ditches and rhynes are present and are often reed filled. The rivers are amongst the most natural features in the landscape, the River Isle, River Parrett and River Yeo are the most prominent. The River Isle flows through flower-rich meadows bordered by alders and willows. The River Parrett is meandering and natural in its appearance and is heavily defined by alders and willows. The River Yeo has been straightened and embanked and is an attractive and ecologically sound river, particularly in its Mudford-Ilchester stretch.

Source: The Landscape of South Somerset¹⁷

¹⁶ Natural England (2014) *NCA Profile: 140 Yeovil Scarplands* (NE557) [online] available at: <http://publications.naturalengland.org.uk/publication/5731196449325056> (last accessed April 2018).

¹⁷ South Somerset District Council (1993) *The Landscape of South Somerset* [online] available at: https://www.southsomerset.gov.uk/media/339787/the_landscape_of_south_somerset.pdf (last accessed May 2018).

Local landscape character

7.7.12 This landscape character baseline has been informed by the South Somerset District Council *Landscape of the South Somerset*¹⁸ assessment of landscape character. However, this is at a regional level which is not a sufficient level of detail for the proposed scheme. This assessment has therefore identified and separated the study area into 7 landscape character areas. These were informed by desk study and site survey at a more local level across the study area, as shown in Figure 7.3 of Volume 6.3.

LCA1 West Camel Hill

7.7.13 LCA1 boundary is defined by the A303 to the south and the River Cary and Dyke Brook to the north, west and east. This comprises a vast undulating open area of arable farmland, with predominantly irregular shaped fields of all sizes. Vegetation cover is limited to isolated blocks of woodland. Field boundaries and rural roads are predominantly defined by mature hedgerows with mature trees appearing intermittently. The LCA is tranquil by nature with audible influences limited to noise from passing aircraft being an infrequent detractor and consistent noise from the A303 at the southern section of the LCA. The A303 is hidden from view for much of the LCA, however intermittent and filtered views are available of the road and traffic along the southern border of the character area. Lighting elements within the landscape are limited to car headlights and small businesses along the A303.

7.7.14 LCA1 has rural scenic qualities, however there are existing detractors in landscape quality from the A303 and Yeovil Station to the southern extents of the LCA. Rural land use is the primary contributor to the character and sense of place of the landscape within the LCA. This LCA would be able to partly accommodate the proposed scheme, specifically where in the southern aspect adjacent to the existing A303. In this context, the sensitivity of the scheme to change is considered to be Medium.

LCA2 Hazlegrove

7.7.15 Hazlegrove House RPG is distinct within the surrounding landscape. The 18th century park is defined by the large areas of pasture, veteran oak and parkland trees. Both Hazlegrove House Preparatory School within the RPG and Sparkford Hall (separated from the RPG to the east) stand out as similarly unique historic listed buildings within the wider landscape context. The RPG is designated as a Local Wildlife Site (LWS) due to the presence of veteran trees and specialist invertebrate fauna. The LCA is bordered by the A303 to the south and the arable farmland of West Camel Hill (LCA1) to the west. The tranquillity

¹⁸ South Somerset District Council (1993) *The Landscape of South Somerset* [online] available at: https://www.southsomerset.gov.uk/media/339787/the_landscape_of_south_somerset.pdf (last accessed May 2018).

of the LCA is disturbed by the existing A303, which has visual and audible connectivity with the RPG, especially from higher vantage points to the north of LCA. However, the majority of the LCA is well contained within a framework of existing mature vegetation to the south.

- 7.7.16 As a designated landscape with historic and cultural significance this LCA is considered to be highly valued. Due to the well contained and protected nature of the LCA and the value of the RPG it is considered that this LCA has a High sensitivity to change.

LCA3 Sparkford

- 7.7.17 The village of Sparkford is predominantly to the south of the existing A303, however expansion to the north has extended the LCA across the existing A303. The village is split across the Somerset and Weymouth Railway which runs north to south and separates the older housing to the east from the newer housing and light industry to the west. The A359 is another intrusive feature within the LCA which reduces audible tranquillity and reduces connectivity within the LCA. Arable and pastoral farmland surround the village, which in places, are being developed upon for additional housing. There are 8 listed buildings within the LCA, the majority of which are to the east along Church Road, which includes the Church of St Mary Magdalene. Vegetation is restricted to the areas around the residences, bordering the railway and along field boundaries.
- 7.7.18 The sensitivity to change of this LCA is considered to be Low due to the lack of tranquillity from the railway, A359 and A303 and the influence of new development and light industry.

LCA4 Weston Bampfylde

- 7.7.19 This rural LCA is bordered by the existing A303 and the Sparkford LCA (LCA3) to the north, and Queen Camel LCA (LCA5) and the West Camel and Wales LCA (LCA6) to the west. Irregular medium sized arable and pastoral fields make up the majority of the land use within a gently undulating landform. Small clusters of residential receptors are found within Weston Bampfylde, Little Weston and Sutton Montis with additional solitary farmsteads also dotted through the landscape. Vegetation is sparse and most prevalent along the River Cam and Henshall Brook and Sparkford Hill Copse ancient and semi-natural woodland. The LCA is open in nature and tranquil in most areas, however to the west the A359 and the Somerset and Weymouth Railway are localised detractors of tranquillity. The Leland Trail long distance footpath crosses the LCA from east to west and is a well used leisure route.

- 7.7.20 Due to its isolated rural and open nature, this LCA has a Medium sensitivity to change. This is due to the lack of designation within the landscape and the presence of the A303, A359 and Somerset and Weymouth Railway.

LCA5 Queen Camel

- 7.7.21 The village of Queen Camel is the defining feature of this LCA and is well contained at the base of Sparkford Hill. The majority of the village is designated as a conservation area by the local authority with the historic core along the High Street forming the spine of the conservation area.
- 7.7.22 The LCA is surrounded by rural mixed farming and field patterns. The Church of St Barnabas is a Grade I listed building and an important historical feature within the village, however there are a further 30 listed buildings within Queen Camel which underlines the historic significance of the village. Vegetation within the LCA is predominantly along streets, in front gardens and along the River Cam to the north of the village. The Leland Trail long distance footpath runs across the north of the village and is well used leisure path through the area. The A359 which runs along High Street is an audible detractor within the village, and air traffic from Yeovilton also creates an intermittent acoustic intrusion within an otherwise tranquil village.
- 7.7.23 Due to the peaceful and contained nature of this LCA, and the presence of a Conservation Area, it is considered that there is a High sensitivity to change.

LCA6 West Camel and Wales

- 7.7.24 The rural nature of this LCA is bordered to the north by the A303 and to the south by West Camel Road. Between these 2 roads, rising land to the north is punctuated with small clusters of houses and farming. West Camel is the largest settlement within the LCA and is designated as a conservation area. The Leland Trail long distance footpath runs east to west across this LCA and forms a central well used leisure route and a spine that links a network of PRoW. The River Cam runs laterally across the LCA, this watercourse is a rare example of vegetation within the LCA. Trees are also present within West Camel along a small number of hedgerows, in an orchard to the south west and in the north east between Sparkford Hill and Camel hill along the A303. Hedgerows represent the majority of vegetation and define rural lanes and field boundaries.
- 7.7.25 Open, long distance views are available from PRoWs, predominantly to the south and within some settlements. However, undulating landform does limit some views to the north. The elevated position on high ground of the existing A303 over the LCA increases its influence on the tranquillity and sense of remoteness. Similarly, the RNAS Yeovilton (LCA7) to the west is an audible detractor with aircraft creating a frequent audible disturbance.

- 7.7.26 In this otherwise peaceful and contained landscape, this LCA is influenced by discordant effects from RNAS Yeovilton LCA (LCA7) and the A303 to the north. Due to the existing conflict within the LCA it is considered that there is a Medium sensitivity to change.

LCA 7 Yeovilton

- 7.7.27 This LCA is defined by the existing A303 to the north, River Yeo to the south and the Roman Road to the West. The LCA is covered by large flat open fields and the RNAS Yeovilton that occupies an extensive portion of the area. The villages of Podimore and Yeovilton are dwarfed by the size of the runways, aircraft hangers and military infrastructure. There are also a number of small clusters of houses and farmsteads across the LCA. Farmland is predominantly arable in nature and bordered by hedgerows and native trees, which are the dominant vegetation type across the LCA. The presence of the A303 to the north and RNAS Yeovilton result in an unpeaceful environment with regular outbursts from aircrafts and the continued drone of traffic to the north. The Leland Trail long distance footpath traverses the LCA along the southern boundary adjacent to the River Yeo before skirting RNAS Yeovilton heading north east.
- 7.7.28 This LCA is considered to be of Low sensitivity due to the unsettled noisy environment and large buildings and infrastructure associated with RNAS Yeovilton, which are significant distracting and overbearing features.

Visual baseline

Visual receptors

- 7.7.29 A number of visual receptors have been identified during the baseline study including residential properties, PRowWs, Hazlegrove House RPG, and a long distance footpath. Views 43, 44 and 45 are considered to be long distance as they are over 1 kilometre from the proposed scheme. Photographs were taken from each Key Visual Receptor and are provided in Figures 7.6a to 7.6e of Volume 6.2
- 7.7.30 The visual sensitivity of each receptor would influence the overall impact associated with the scheme as defined in Table 7.4. The sensitivity of visual receptors is detailed in Appendix 7.4 Visual Baseline and Impact Schedules, Appendix 6.3. In this assessment, only highly sensitive receptors have been assessed as these represent those most likely to experience significant effects. As there are a large number of high sensitivity receptors represented across the study area it is not necessary to assess the lower sensitivity receptors which would produce a lower significance of effect for the magnitude of impact.

7.8 Potential impacts

7.8.1 This section provides an overview of potential impacts as a result of the scheme during construction and operation.

Construction

Landscape character

7.8.2 Temporary impacts to landscape character during construction are likely to include:

- The presence of construction plant, materials, machinery, construction compounds and the provision of construction lighting would potentially change the local landscape character for a temporary period, due to the existing setting comprising a predominantly rural undeveloped landscape interspersed with individual farm house dwellings and small villages.
- The removal of vegetation, such as from woodland areas where it is required to facilitate the works, has the potential to alter the local landscape character within the study area.

Visual effects

7.8.3 Temporary impacts to visual receptors during construction are likely to include:

- Clearance of vegetation during construction has the potential to directly alter the visual baseline for visual receptors as a result of the scheme for a temporary period.
- The removal of trees and screening vegetation may result in the opening up of views of the road to nearby visual receptors, including a number of residential properties and PRow users.
- Construction works have the potential to alter elevated far reaching views, such as from Parrock Hill to the east, and from South and North Cadbury.
- Construction works have the potential to alter views afforded by road users during construction.

Operation

Landscape character

7.8.4 During operation, potential impacts to the landscape character are likely to include:

- The introduction of highway features associated with the scheme would be at odds with the wider landscape character.
- There would be a loss of existing landscape features such vegetation which would further impact upon the local landscape character.

Visual effects

7.8.5 During operation, potential impacts to visual receptors are likely to include:

- The removal of existing vegetation, the introduction of a dual carriageway, associated infrastructure, and passing traffic within a predominantly rural setting with sensitive visual receptors has the potential to change views.

7.9 Design, mitigation and enhancement measures

7.9.1 The scheme has been designed, as far as possible, to minimise effects on landscape character and visual receptors. Appropriate mitigation measures have been identified based on a review of guidance provided in the DMRB Volume 11, Section 3 Part 5 *Landscape*¹⁹, and using professional judgement.

Design measures

7.9.2 A series of landscape bunds and false cuttings have been incorporated into the scheme design to reduce adverse visual impacts. These are 2 metres in height from the proposed carriageway and placed strategically adjacent to the scheme where there is the potential for significant effects. These mitigation measures have been placed along the Hazlegrove Junction in order to screen the scheme from Hazlegrove RPG and to the east of Howell Hill to reduce effects on West Camel. The false cuttings at Hazlegrove have been developed in consultation with the TWG to reduce likely significant effects on the RPG and the PRow which runs through it. Visual effects from the proposed dualling east of Howell Hill were raised by West Camel Parish in the Scoping Opinion (Appendix 4.1, Volume 6.3). The proposed false cuttings in this location would reduce visual effects from traffic on the road in the short and long term on West Camel and residential properties on Howell Hill. Proposed design measures are detailed in the Environmental Masterplan (Figure 2.8, Volume 6.2).

7.9.3 The scheme would appear in cutting from the west of Howell Hill to the Camel Cross Junction, which would reduce the visibility of the proposed A303 and compared to the existing A303.

Mitigation measures

Construction

7.9.4 An **Outline Environmental Management Plan (OEMP) (document reference TR010036/APP/6.7)** has been produced to support this Development Consent

¹⁹ Highways England (1993) Design Manual for Roads and Bridges Volume 11 Section 3 Part 5 *Landscape Effects* [online] available at: <http://www.standardsforhighways.co.uk/ha/standards/dmr/vol11/index.htm> (last accessed March 2018).

Order (DCO) application and would be developed into a full CEMP by the appointed contractor.

- 7.9.5 Impacts on landscape character and visual amenity during construction would be reduced by keeping a well managed and tidy site and compounds. Ensuring materials are delivered to site on an as and when basis would avoid unnecessary stockpiles and would help to reduce construction impacts.
- 7.9.6 Temporary offices and welfare facilities within site compounds would be of a recessive colour to blend in with the local surroundings. Lighting would be kept to a minimum luminosity necessary and use low energy consumption fittings. Where appropriate, lighting would be activated by motion sensors to prevent unnecessary usage. The main site compound would be occupied at all times for the security of the plant, equipment, and materials within it. As such, the main site compound would be lit as required during hours of darkness. Lighting would be directional, and positioned sympathetically, to minimise light spill and disturbance for highly sensitive receptors. Construction lighting arrangements are further detailed in Section 2.6 of Chapter 2 The Scheme, Volume 6.1.
- 7.9.7 Mitigation in relation to trees is detailed in the AIA contained in Appendix 7.3, Volume 6.3. An Arboricultural Method Statement (AMS) would be produced to prevent damage to any vegetation to be retained; indicative contents of the AMS are contained within Annex B.4 of the **OEMP (document reference TR010036/APP/6.7)**. The AMS would form part of the CEMP which would detail and secure proposed mitigation during the construction period.

Operation

- 7.9.8 Mitigation during operation would include the reinstatement of planting. Local native species would be introduced in areas where vegetation removal is required to accommodate construction. Swathes of native tree and shrub species would be introduced along the road corridor helping to reinforce the landscape setting to the linear road corridor. Over time, this vegetation would mature to offer effective screening where required as well as general landscape integration and softening of environmental barriers. Hedgerows would also be incorporated to restore hedgerow boundaries and integrate the rural landscape as shown in the Environmental Masterplan (Figure 2.8, Volume 6.2).
- 7.9.9 The AIA (Appendix 7.3, Volume 6.3) details specific mitigation in relation to potential remediation measures following construction.

7.10 Assessment of likely significant effects

Construction

Landscape

7.10.1 The following section provides a description of the likely significant effects upon LCAs within the study area during construction. The location and extent of each character area can be found in Figure 7.4 of Volume 6.2 and should be read in conjunction with Figure 2.9 of Volume 6.2 showing the temporary works areas such as compound and haul route locations.

LCA1 West Camel Hill

7.10.2 The vast majority of this LCA would remain unaffected by the works however, the realignment of the A303 to the southern extent of the LCA would encroach on farmland. The undulating landform would be cut into around Downhead and the road would be on embankment at Camel Hill altering the natural lay of the land. Construction activity would increase the audible intrusion in the southern section of the LCA above the existing baseline levels. The construction of Steart Hill Overbridge at Downhead Junction would result in there being notable vertical elements in the character area as would construction compounds and material storage. The proposed Downhead Junction would represent a localised change in land use and loss of linear arable fields as would embankment works to the south east at the Camel Hill Link, Vale Farm Link and on the approach to the Hazlegrove Junction. Haulage routes between Downhead and Hazlegrove would extend further into the LCA and away from the context of the existing A303 corridor. These haulage routes, as well as site compounds, would appear at odds with the surrounding landscape and would interrupt an abundantly open arable landscape. Removal of vegetation along the highways corridor would also change the character and enclosed nature in parts of southern section of the LCA.

7.10.3 There is a limited proportion of the extensive LCA directly affected by the impact of the scheme and the impacts are predominantly centred around the existing A303. It is predicted that there would be a Minor magnitude of change in this Medium sensitivity LCA, resulting in a Slight Adverse effect for the duration of the construction period.

LCA2 Hazlegrove

7.10.4 Although the scheme would only directly impact the southern portion of the LCA, effects would be experienced across the LCA due to the opening up of a previously enclosed protected landscape. The construction works associated with the proposed Hazlegrove Junction would sever the lower part of the LCA and remove the majority of the characteristic woodland copse. The proposed

grade separated junction would create an artificial vertical feature at odds with gently undulating land, during construction, plan machinery and the bare slopes would introduce discordant features in the landscape. Night works are likely to be required in this section of the scheme and would present an increase in lighting in a predominantly unlit landscape. The tranquillity of the contained LCA overall would be disturbed by construction traffic which is predicted to surpass the existing audible influence from the existing A303.

- 7.10.5 Direct impacts on the southern section of this LCA would reduce the quality of the parkland landscape and its tranquillity. The severance of the RPG and loss of the woodland copse to the south of the LCA would substantially alter the character of this landscape. The magnitude of impact is predicted to be Major resulting in a Large Adverse effect on the High sensitivity LCA during the construction period.

LCA3 Sparkford

- 7.10.6 The vast majority of this LCA is separated from the scheme (located in the south west corner) which would be sheltered due to the built form and linear woodland along the A303. In this LCA the scheme is confined to the existing A303 corridor and Hazlegrove Roundabout. It is not expected that the LCA overall would be directly affected by the construction works. There is expected to be No Change in the magnitude of impact which would result in a Neutral effect on the Low sensitivity LCA.

LCA4 Weston Bampfylde

- 7.10.7 There are no direct impacts expected on this LCA and indirect impacts would be fully contained within LCA3 and LCA6. It is expected that there would be No Change in the magnitude of impact which would result in a Neutral effect on this Low sensitivity LCA.

LCA5 Queen Camel

- 7.10.8 The Queen Camel High sensitivity LCA is removed from direct impacts associated with the scheme, indirect effects would be contained within LCA3 and LCA 6 in the most part. It is expected that there would be No Change in the magnitude of impact which would result in a Neutral effect on.

LCA6 West Camel and Wales

- 7.10.9 The scheme would be located predominantly within the rising land in the north of the LCA, where the dualling departs to the south of the existing A303 corridor. Although the majority of the dualling would be north of the LCA there would be expected to be indirect impacts from the Downhead Junction and dualling work in LCA1. The construction of new link roads at Howell Hill and Camel Cross would remove existing field boundaries and vegetation lining local

roads to accommodate the scheme. The biggest impact on the LCA would be to the east of Howell Hill where earthworks would be required to the south of the existing A303. The height and prominence within the LCA would increase the influence of the works. The rising nature of the landform would not be affected by the scheme however, the removal of linear vegetation along the A303 corridor would reduce the enclosure of the A303 and its separation from the LCA. Night works are likely to be required in this section of the scheme and would present an increase in lighting within a predominantly unlit landscape.

7.10.10 Haul routes and site compounds as part of the scheme would appear at odds within the landscape context and their elevation would exacerbate the disruption, especially to tranquillity. Field boundaries would be disrupted where vegetation would be removed to allow for haul routes, fragmenting the field pattern characteristic of the area. Indirect impacts from the construction of the Downhead Junction introduced in LCA 1 would contribute to a loss in tranquillity and the connectivity between the landscapes.

7.10.11 Although the scheme would primarily be located within the northern section of the LCA, due to the influence of topography on the scheme, effects are likely to be experienced across much of the LCA during construction. As such, the magnitude of impact is judged to be Moderate within the Medium sensitivity LCA, resulting in an expected Moderate Adverse effect during the construction period.

LCA 7 Yeovilton

7.10.12 Direct impacts to the scheme are predominantly located in the northeast of the LCA adjacent to Podimore. The scheme in this section would comprise widening of the existing A303 within an arable field and the inclusion of a turning head on the closed unnamed road. The majority of the LCA would not be directly affected by the scheme and / or is outside of the study area. Compounds and haulage routes would not be proposed within this LCA, however the presence of the compound in the west of LCA6 would have an indirect effect. Vegetation cleared as part of the works would be predominantly along the road corridor which would reduce the sense of enclosure where the road is currently contained. It is not expected that night works would be required in this section. The scheme would remain mostly within the existing highway corridor and would not disturb field patterns and the structure of the LCA.

7.10.13 In the context of the busy and audibly unsettled landscape the proposed construction in the north east of the LCA is likely to result in a Negligible magnitude of impact within a Low sensitivity LCA. This would equate to a Negligible effect on the LCA during construction.

Summary

7.10.14 In summary, 2 of the 7 LCAs within the study area would experience significant effects during construction, Hazlegrove (LCA 2) and West Camel and Wales (LCA 6). All other LCAs would experience Neutral or Negligible effects with the exception of West Camel Hill which would experience Slight Adverse effects.

Visual

7.10.15 Effects during construction of the scheme have been detailed for each visual receptor identified in the assessment process or where receptors are so close together that a view can be reasonably approximated for collection of receptors. The Visual Baseline and Impact Schedules contained in Appendix 7.4 of Volume 6.3 provides a detailed description of the change in view and the associated magnitude of impact and significance of effect during construction.

7.10.16 Of the 45 receptors identified, 14 would experience Significant Adverse effects during construction. Of these receptors 1 would experience Very Large Adverse effects and 6 would experience Large Adverse effects, the remaining 7 would experience Moderate Adverse effects. A summary of effects upon visual receptors, grouped by type is outlined below. Visual receptors reporting significant effects during construction have been extracted from the Visual Baseline and Impact Schedules (Appendix 7.4 of Volume 6.3) and are available in Table 7.9 below for reference.

Residential receptors

7.10.17 Of the 8 residential receptors reporting significant effects, 4 would experience Moderate Adverse effects and the remaining 4 receptors would experience Large Adverse effects (2 of these are also representative of PRoW). All the residential receptors affected are within a close proximity to the scheme, typically 100 metres from the works. The largest impacts during the construction phase would be due to the removal of screening vegetation and the presence of construction plant and machinery within the view. Due to the proximity of the scheme, the erection of hoarding or screening fencing would not remove impacts to a degree that would further reduce the significance of effect.

Public Rights of Way

7.10.18 A total of 5 PRoW would be closed permanently as part of the scheme, with a further 4 PRoW closed but provided with temporary or permanent substitute provisions. The PRoW to be permanently closed are located where the A303 would either be widened or where new junctions are introduced. Of the remaining PRoW and long distance footpaths remaining, 6 would experience a Large Adverse effect during construction, with 1 receptor (Key View 38) experiencing a Very Large Adverse effect.

7.10.19 Impacts during construction would result from the introduction of new features within the view which would be incongruous in the otherwise more rural scene. Views would however, be set in the context of the well screened nearby A303 and existing passing traffic.

Table 7.9: Significant visual effects during construction

Visual receptor number	Visual receptor	Existing view	Proposed view during construction	Effects on visual receptors
7	View looking north from northern extent of PROW Y 27/11 (High sensitivity)	This short distance view comprises an arable field in the foreground bounded by a mature hedgerow. To the right of the view, glimpsed views of traffic on the A303 are available at the junction of the B3151 and the A303 adjacent to Wayne's Bar and Bistro. Mature trees and vegetation along the B3151 form the background of the view except where the road junction is to the right of the view.	During construction glimpsed views of construction plant, care facilities and site offices and would be available over construction hoarding where the existing linear belt of shrubs and trees and boundary hedgerow have been removed. In the middle distance, direct, open views onto the A303 would be available. There may be lighting impacts from the construction compound and night works to connect the junction. It is considered that there would be a Major magnitude of effect which would result in a Large Adverse effect.	Large Adverse
8	View from PROW Y 27/10 representative of view from Glebe Farm Grade II Listed Building and Annis Hill Farm residential receptors (High sensitivity)	Expansive middle distance view across an arable field which rises to the left of the view. Farm buildings along an unnamed single lane road can be seen in the right of the view and Wayne's Bar and Bistro is visible on the opposite side of the A303 in the centre of the view. Vegetation along the field boundary partially obscures traffic on the A303 however where vegetation is sparse or missing traffic, HGVs in particular, are visible in the middle distance.	During construction open views of construction plant and machinery would be visible in the middle distance where the proposed A303 dualling and embankment works would take place. Existing field boundary vegetation would be removed, opening up views of traffic on the existing A303. There may be indirect lighting impacts where the Camel Cross Junction is being constructed and linked with the existing A303 and B3151. The dualled A303 would be in cutting across the view, however the existing A303 would remain in view across the rising ground. Due to the removal of screening vegetation and the middle distance views of construction activities it is judged that there would be a Moderate magnitude of impact resulting in a Large Adverse effect.	Large Adverse
9	Representative of Wayne's Bar and Bistro bed and breakfast (High sensitivity)	Direct, short distance views are available toward the A303 which traverses the wide view. On the opposite side of the road highways signage are clearly visible in the verge and tall shrub and tree vegetation is present along the boundary of the road which limits long distance views in places. Arable land can be seen falling away in the middle distance to the left of the view and with rolling hills forming the background of the view.	During construction short distance open views would be available of the A303 realignment works. Vegetation would be removed in the middle distance which would open views to the wider surrounding landscape and the proposed A303 dualling. Open views of construction plant and machinery would be available across the wide view. Lighting impacts from night works area expected where the proposed dualled A303 meets the existing A303. Despite the existing context of the A303 it is considered that there would be a Moderate magnitude of impact resulting in a Large Adverse effect.	Large Adverse

Visual receptor number	Visual receptor	Existing view	Proposed view during construction	Effects on visual receptors
10	View looking southeast representative of PROW Y 27/10 (High sensitivity)	The view comprises short distance views of a rising arable field bordered by a hedge with intermittent mature trees. Glimpsed views of traffic on the A303 especially HGVs are available, where there are openings in the vegetation in the centre of the view. The vegetated field boundary in the middle distance forms the background of the view.	During the construction phase, construction plant and machinery required for works on the embankments would be visible across wide open arable fields. To the left of the view the construction of the new Downhead Lane connection would require the removal of hedgerow vegetation opening up the view. The A303 dualling would be closer to the receptor and require the removal of screening vegetation along the field boundary. The dualled A303 would be in cutting across the view, however the existing A303 would remain in view across the rising ground due to the removal of intervening vegetation. It is not expected that night works would be required in this section of the scheme. Due to the removal of screening vegetation and the short distance views of construction activities it is judged that there is a Moderate magnitude of impact resulting in a Large Adverse effect.	Large Adverse
12	View from PROW Y 27/27 representative of view from Appletree Cottage residential receptor (High sensitivity)	The view affords oblique short distance views across a pastoral field bounded by hedgerows which screen views of the A303, however glimpsed views of HGVs and a luminous speed limit sign are available over boundary vegetation. In the middle to long distance rising agricultural land with mature hedgerow and tree vegetation are seen. Visibility of traffic on the road would increase during the winter period due to the lack of leaf coverage. The background of the view comprises Steart Hill broadleaved woodland and in the longer distance in the left of the view are the Queen Camel Radio Station antenna masts and surrounding woodland.	During the construction phase of works, activities required for the construction of the attenuation pond would be present in the foreground of the pastoral field. The existing A303 and surrounding boundary hedge in the short distance would appear the same as in the baseline view and the retained boundary hedge would screen views in the short to medium distance. In the long distance, construction of the Downhead Junction and the realigned A303 would be visible in the rising ground beyond intervening vegetation. It is likely that a crane would be visible in the location where the construction of the Downhead overbridge is taking place, creating a vertical element at odds with the surrounding view in the middle distance. Proposed night works would be required at the junction and to link the existing A303 with the proposed scheme. Open views of a proposed roundabout and realigned A303 constructed in an arable field would be available in the middle distance. Given the presence of the construction activity in the short distance and proposed roundabout and junction works it is considered that the magnitude of impact would be Moderate, despite the retained screening vegetation. This would result in a Moderate Adverse effect.	Moderate Adverse

Visual receptor number	Visual receptor	Existing view	Proposed view during construction	Effects on visual receptors
13	View north west from Orchard Park Residential Park representative of residential receptors (High Sensitivity)	Open view across rising mixed farmland over a timber boundary fence in the foreground. The arable field in the middle distance is bound by a native arable hedge adjacent to the existing A303. Glimpsed views of cars are available and HGVs are clearly visible over the hedgerow vegetation. Beyond the A303 a rising arable field bordered to the north by a linear belt of shrubs and trees. Residences on either side frame the view in the short distance and limit the view from widening further.	During the construction phase of works activities required for the construction of the attenuation pond would be present in the middle distance in the pastoral field. The existing A303 and surrounding boundary hedge in the short distance would appear the same as in the baseline view where it is retained, however where it is removed, short to medium distance open views would be available of traffic and construction plant. In the long distance, construction of the Downhead Junction and the realigned A303 would be clearly visible in the rising ground beyond intervening vegetation. It is likely that a crane would be visible in the location where the construction of the Downhead overbridge is taking place, creating a vertical element at odds with the surrounding view in the middle distance. Proposed night works would be required at the junction and to link the existing A303 with the proposed scheme. Open views of a proposed roundabout and realigned A303 constructed in an arable field would be available in the middle distance. The Steart Hill Link road would be visible rising and ascending from the left into the centre of the background, this would be bordered to the north by stockpiled material. Given the presence of the construction activity in the middle and long distance and proposed roundabout and junction works, it is considered that the magnitude of impact would be Moderate, despite the retained screening vegetation. This would result in a Moderate Adverse effect.	Moderate Adverse
14	View looking south from Slate Lane PROW Y 27/20 (High sensitivity)	This receptor affords long distance open views across falling arable farmland. In the middle distance well-established hedgerows and several individual trees delineate field boundaries and provide intermittent screening of the existing A303. Where vegetation is low or missing, open views down onto traffic are available. Undulating ground and established hedges to the left of the view provide screening of the majority of traffic, with the exception of	During construction, short distance open views would be available across falling ground where the construction of Downhead Junction, Steart Hill Link and the A303 mainline. The scheme would traverse the entirety of the view and form a prominent feature in the foreground. Although the A303 mainline would appear in cutting, the elevated position of the viewpoint would afford middle distance views of the mainline earthworks, construction plant and machinery required for earthworks and the construction of the Downhead bridge structure. Views from this elevated position would also likely include the presence of a crane used to construct the new	Large Adverse

Visual receptor number	Visual receptor	Existing view	Proposed view during construction	Effects on visual receptors
		HGVs. In the middle distance of the view, Orchard Park Residential Park is partially visible to the south with the rooftops of residences in West Camel visible to the southeast. From this high vantage point Royal Naval Air Station Yeovilton is visible in the long distance. Long distance views comprise gently undulating farmland with mature hedgerows and trees delineating field boundaries. A vast undulating landscape forms the background to the view.	Downhead overbridge crossing the A303. Material stores no higher than 2m would be visible in the short distance view along the northern edge of the Steart Hill Link Road, at times these would obscure middle and long distance views. Night time views would include lit construction of the proposed Downhead Junction overbridge and the linking works to the existing A303 corridor. However, it is considered that this receptor is not well used at night time. Long distance views across the vast undulating landscape form the background of the view. Given the presence of short distance open views of construction of the new road and erection of the Downhead overbridge the magnitude of change from this location is considered to be Major resulting in a Large Adverse effect.	
17	View from PROW Y 27/20 looking south (High sensitivity)	A wide, open view across an arable field which falls away into the middle distance. The field is bounded to the left by a hedgerow and as land falls away the middle distance is not visible, however residential properties along the A303 however can be seen. The background of the view comprises long distance open views of gently undulating farmland with pockets of built form. The A303 and traffic are not visible in this view.	During construction wide, open, short distance views would be available of construction activity for the Steart Hill Link road in the foreground and middle distance. Soil storage bund up to 2m high in the short distance would be traverse the view and limit long distance views to the right. Glimpsed views of the construction of Downhead Junction may be possible to the left and may include a crane. Vegetation removed the left of the view would open up views of Steart Hill road and residential properties. During construction it is considered that there would be Major magnitude of impact resulting in a Large Adverse effect.	Large Adverse
18	View from intersection of Steart Hill road and A303 representative of view from Sheira Leigh house (High sensitivity)	Short distance open views are available of the A303 as it traverses the view. Views down Howell Hill road are available in the centre of the scene. Beyond the A303 pastoral farmland can be seen falling away towards West Camel through boundary trees and hedgerows. In the far distance undulating landform and hills form the background of the view.	During construction short distance open views would be available toward construction plant required to lower the dualled A303 and Blue Haze Access. It is likely that night works would be required in this section to join the existing A303 alignment with the new alignment. An environmental barrier would also be installed along the northern edge of the A303 in the immediate short distance. The short distance open views of construction plant would result in a Moderate magnitude of impact resulting in a Moderate Adverse effect.	Moderate Adverse
19	View from Howell Hill representative	The view across an arable field is heavily screened to the left by a mature tree in the	During construction short to medium distance views would be available of the proposed A303 realignment and embankment	Large Adverse

Visual receptor number	Visual receptor	Existing view	Proposed view during construction	Effects on visual receptors
	of view from Coneygore Farm residential receptor (High sensitivity)	foreground. The arable fields in the short to middle distance are bound by a mature hedge which partially screens the traffic on the A303. In the long distance highway signage and HGVs on the A303 can be seen against the skyline at the crest of Camel Hill.	works across an arable field. In the long distance glimpsed views over undulating land would be available of the Camel Hill construction compound. Within the construction compound construction plant, care facilities, site offices and materials storage may be visible. Lighting impacts are expected in the construction compound and where the proposed dualled A303 would join with the existing A303. Where vegetation is cleared along the existing A303 open short distance and middle distance views towards traffic will be available. It is expected that there would be a Major magnitude of impact resulting in a Large Adverse effect.	
20	View from southern extent of Howell Hill Road representative of residential receptors to the northern extent of West Camel immediately adjacent (High sensitivity)	Open view across rising and undulating pastoral farmland bounded by hedgerow vegetation. To the left of the view residential properties are present and along the ridgeline views of traffic on the A303 are available where no screening vegetation is present. Mature deciduous vegetation can be seen intermittently across the ridge.	During construction long distance open and filtered views would be available of the embankment works, Camel Hill Construction Compound. Along the ridge of Camel Hill partially filtered views of construction plant, care facilities, site offices and materials storage would be available which would appear discordant in the rural context of the view. Vegetation removed would remove the tall mature trees which form the background of the view. To the left of the view filtered views of embankment works would be available over a native hedgerow in the middle distance. Impacts from lighting are expected from the construction compound and where the proposed dualling would connect to the existing A303. It is expected that there would be a Moderate magnitude of impact during construction resulting in a Moderate Adverse effect.	Moderate Adverse
26	Representative of southern extent of PROW WN 23/33 (High sensitivity)	This expansive view from a low point in the landscape comprises a tranquil undulating rural landscape. Arable fields bounded by mature hedgerows with trees are prominent across the view with wooded areas. In the middle to long distance rising agricultural land with mature hedgerow and tree vegetation with deciduous woodland forming the background of the view. There	During construction, views of a haulage route are available in the middle distance traversing the view and extending into the distance. The majority of vegetation would remain in the short and middle distance, with the exception of short sections of woodland where hedgerow is being removed for the haulage route. Pepper Hill Copse and linear woodland along the south western boundary of the Hazlegrove RPG would be retained, this combined with the undulating landform would screen direct views of the Camel Hill Link and Hazlegrove Junction. Glimpsed long distance views of construction machinery may be visible through intervening vegetation where the attenuation	Moderate Adverse

Visual receptor number	Visual receptor	Existing view	Proposed view during construction	Effects on visual receptors
		is no visibility of the existing A303 or highways infrastructure.	pond would be constructed. It may be possible to see a crane in the long distance above screening vegetation where the Hazlegrove Junction is being constructed. Within the context of the existing view, construction machinery, traffic and traffic would be a discordant, jarring influence in the view. It is considered that the magnitude of impact would be Minor resulting in a Moderate Adverse effect.	
28	View looking south representative of residential receptors on views from Camel Hill Farm (High Sensitivity)	Short to middle distance view over rising land with linear vegetation in a chicken pen and field boundaries screening short distance views to the left of the view and at the top of the embankment. In the foreground of the view the unnamed residential road can be seen and is surrounded by a post and timber fence. The Queen Camel Radio Station mast can be seen over mature native tree and shrub vegetation.	During construction heavily filtered views of construction plant and machinery would be available through intervening tree vegetation to the left of the view. Screening vegetation on the brow of the hill would be removed as part of the works which would open views towards the proposed embankment, dualled A303. Partially obstructed views of construction machinery and traffic would be available during construction machinery to the right of the view where existing screening vegetation would be removed. A 2m environmental barrier would be installed along the proposed road and would screen views of traffic to the right of the view. Due to the short to medium distance views of the construction activity it is judged that there would be a Moderate magnitude of impact resulting in a Moderate Adverse effect.	Moderate Adverse
30	View looking northwest representative of northern extent of PROW WN 23/10 (High sensitivity)	In this location short distance open views of the A303 are available across a gently falling grassed field. Linear woodland bordering the field to the south and the north of A303 narrows the view allowing only short distance views. The Queen Camel Radio Station to the left of the view has a notable vertical presence against the skyline.	No vegetation would be removed on the south side of the existing A303, however all boundary vegetation would be removed along the northern boundary. Vegetation removed would open up views over falling ground towards residences on the unnamed residential road. Open views of construction machinery would be available where the A303 is being widened. Night works would most likely be required to connect the widened road to the existing A303 alignment. Glimpsed long distance views between buildings and retained vegetation would be available where vegetation has been removed. It is expected that the magnitude of change in this view would be Major during construction resulting in a Large Adverse effect, despite the short distance views of the existing A303.	Large Adverse
35	Representative of view from Hazlegrove House	Long distance wide view across the Hazlegrove Registered Park and Garden parkland environment. The Hazlegrove	Long distance open views would be available of the proposed Hazlegrove Junction embankment and structure and realigned Hazlegrove access road. Glimpsed long distance views of the	Moderate Adverse

Visual receptor number	Visual receptor	Existing view	Proposed view during construction	Effects on visual receptors
	Gateway Grade II Listed Building (Registered Park and Garden) (High sensitivity)	access road can be seen in the centre of the view surrounded by open grassland and individual trees as the land falls away in the middle distance. In the long distance rising pastoral land meets a ridgeline of deciduous woodland. An existing petrol garage and diner can be seen half way up the ridge and A303 traffic can be seen traversing part of the view, but does not make up a large feature of it.	haulage route would be available to the right of the view traversing the landscape. Glimpsed views of the construction activity for the Vale Farm and Camel Hill Link roads would be available through mature deciduous vegetation. Within the context of the wide view it is predicted that there would be a Moderate magnitude of impact resulting in a Moderate Adverse effect.	
38	Representative of PROW WN 23/38 and Hazlegrove Registered Park and Garden (High sensitivity)	This view looks southwest from the PROW towards the A303 and is characterised by gently undulating landform and the open parkland in Hazlegrove Registered Park. In the foreground the school access road traverses the grassland field. Individual veteran oak trees are a notable feature in this view as is the mature deciduous woodland in the middle distance that form the background of the view. Currently there are no direct views of the A303 or traffic, however glimpsed views of existing lighting columns are available over mature vegetation.	During construction in the short to middle distance open views of construction activity including haulage routes, major embankment works, 2m high material storage and construction of the new road would be available. The northern section of the Hazlegrove woodland to the right of the view would remain untouched. However, the majority of the woodland along with the entire boundary vegetation to the south would be removed to accommodate the Hazlegrove Junction. A crane and heavy construction machinery would be visible during the construction of the proposed Hazlegrove Junction. The proposed dualling would traverse the view across the open pasture and rise up towards the proposed Hazlegrove Junction. Open views would also be opened up towards the existing Hazlegrove Roundabout and the A303 and replacement lighting columns. Overall it is considered that there would be a Major magnitude of impact resulting in a Very Large Adverse effect.	Very Large Adverse

Operation

7.10.20 The following paragraphs provide a description of the likely effects upon LCAs within the study area during operation. During operation the scheme is assessed at Year 1 and Year 15 after the completion of the proposed works, including the environmental mitigation and integration works detailed within Figure 2.8 Environmental Masterplan (Volume 6.3).

Landscape

LCA1 West Camel Hill

7.10.21 Direct impacts on the landscape as a result of the temporary construction compounds and haulage routes would be removed and the affected land would be reinstated to the previous condition. In Year 1 the reinstated field boundaries would not have established to an adequate level to provide screening or landscape integration and replacement hedgerow planting would resemble whips in clear tubes. Proposed embankments would be grassed or covered in an under seeding grass mix and mass tube planting of replacement native trees and shrubs in Year 1 and would therefore offer very little screening of the scheme. However, by Year 15 when planting would have established, the road corridor would be enclosed by a linear belt of native woodland and hedgerows. Where the scheme would be in cutting the influence of the road would be reduced across the LCA.

7.10.22 The proposed Downhead Junction would stand out within a landscape absent of large, raised structures. The impacts from proposed signage (indicated on Figure 2.3 of Volume 6.2) would be kept within the context of the highway corridor and would make a small contribution to the impact of the scheme where the signage is not contained. Proposed planting in Year 1 would do very little to integrate the structure and associated earthworks with the surrounding landscape; seeding would have established but all other planting would represent tube planting and standard specimen trees in hedgerows. By Year 15 the proposed hedgerow and native tree and shrub planting would filter and screen the influence of the junction within the landscape, reducing its appearance and effect. No additional lighting above that in the baseline would influence the LCA.

7.10.23 Within this Medium sensitivity LCA 1 it is predicted that in Year 1 there would be a Minor magnitude of impact resulting in a Slight Adverse effect. This would be due to the break up of landscape pattern due to the scheme, in Year 1 the immaturity of the planting scheme would result in a minor magnitude of effect continuing to be experienced. However, after the establishment of the proposed planting scheme it is predicted that in Year 15 the magnitude of impact would have reduced to a Negligible impact resulting in a Negligible effect to this LCA. Short and long-term effects are therefore not likely to be significant.

LCA2 Hazlegrove

7.10.24 During operation the impacts of temporary works would have been removed with the reseeded areas of grassland having established in the construction footprint in Year 1. Proposed embankments and slopes would have been planted with native tree and shrub planting on the proposed Hazlegrove Junction embankments and would offer very little landscape integration in Year 1, although seeded areas would have established. In Year 1 it is expected that the Hazlegrove Junction would still appear as a discordant feature within the context of Hazlegrove House RPG although tranquillity may have increased due to the inclusion of embankments along the proposed road. However, by Year 15 when the proposed planting has established a linear belt of shrubs and trees along the junction would be integrated and separate the scheme from affecting the LCA.

7.10.25 Permanent lighting is only proposed to replace the existing lighting around Hazlegrove Roundabout and within the Hazlegrove Junction underpass, which would be contained and would not influence the wider LCA. Impacts from proposed signage would be kept within the context of the highway corridor and would make a small contribution to the impact of the scheme in Year 1. In the southern extent of the LCA the proposed Hazlegrove Junction would dominate the area with the proposed planting providing a heavily wooded area. This section would no longer read as being connected to the rest of the LCA.

7.10.26 During Year 1 of operation it is considered that the sense of place and would be adversely affected by the scheme and a Moderate magnitude of impact on the wider LCA would be experienced resulting in a Moderate Adverse effect to the Highly sensitive LCA. By Year 15 it is expected that the establishment of vegetation would be integrated and form a buffer between the LCA and the scheme. It is considered that the magnitude of impact would be Minor resulting in a Slight Adverse effect in the long term. Effects for this LCA are therefore likely to be significant in the short term, but not significant in the longer term.

LCA3 Sparkford

7.10.27 The majority of the LCA would not be directly impacted by the scheme since the proposed works would be localised to the highway corridor. It is not expected that characteristic elements within the LCA would be removed or changed as part of the scheme as works would be limited to the existing highways corridor and Hazlegrove Roundabout. It is considered that in Year 1 and Year 15 there would be a No Change to the magnitude of impact resulting in a Neutral and not significant effect on the LCA.

LCA4 Weston Bampfylde

7.10.28 There are no direct impacts expected in this LCA. As a result, it is predicted that the magnitude of impact would be No Change in Year 1 and Year 15 which would result in a Neutral effect and not significant effect.

LCA5 Queen Camel

7.10.29 During operation there are no direct impacts expected in this LCA. As a result, it is predicted that the magnitude of impact would be No Change in Year 1 and Year 15 which would result in a Neutral effect and not significant effect.

LCA6 West Camel and Wales

7.10.30 In Year 1 of operation, temporary haulage routes and compounds required for construction would be returned to their previous use and conditions where they are not permanently acquired for the scheme. Where hedges would be removed to accommodate temporary works they would be reinstated, except where required for access by farmworkers. In Year 1 these would resemble whips planted in tubes, however by Year 15 these would have established to restore field boundaries and their pattern.

7.10.31 The proposed embankments and areas cleared during construction would appear greened as proposed seeding works would have established in Year 1; however proposed planting works would be whips within tubes. The introduction of embankments and false bunds however, would limit the influence of the realigned A303 on LCA6. By year 15, areas of replacement and mitigation planting would have established to form a linear belt of shrubs and trees containing the A303 road network within a vegetated corridor. New proposed highways signage would be kept within the context of the existing highway corridor and would not be expected to have an increased impact on the LCA in Year 1 or Year 15. Drainage and water retention features introduced would have grassed up in Year 1 and would not appear at odds with the surrounding environment; the same is expected in Year 15.

7.10.32 It is expected that during Year 1 of operation, the proposed embankments and immaturity of proposed planting would be the most prominent contributors to a Minor magnitude of impact experienced in this Medium sensitivity LCA. This would result in a Slight Adverse effect being experienced in Year 1. In Year 15 when planting would have matured, it is expected that proposed replacement and mitigation planting would have matured to provide a linear vegetated corridor to contain the influence of the LCA. It is expected that in Year 15 there would be Negligible change to the LCA resulting in a Negligible effect. Effects for LCA 6 are therefore not likely to be significant in either the short or longer term.

LCA 7 Yeovilton

7.10.33 Direct impacts on this LCA would be limited during operation, as the scheme would not change the land pattern or use across the LCA. In Year 1, the proposed replacement and mitigation planting design would not have established, however areas of reseeded would have established and would green up the areas of earthworks. It is expected that overall, there would be No Change in Year 1 of operation, resulting in a Neutral and not significant effect.

7.10.34 By Year 15 it is expected that proposed planting would have established and created a linear corridor of native trees and shrubs which would contain the A303 road network. Overall this would result in a Negligible change in the LCA resulting in a Neutral and not significant effect to the LCA by reducing the influence of the A303 compared to the baseline character.

Summary

7.10.35 In summary, in Year 1 only LCA 2 Hazlegrove would experience significant effects during operation. All other LCAs would experience non-significant effects with the majority being Neutral. In Year 15, as mitigation planting has established to settle the scheme in the wider environment, the likely significant effects experienced in LCA2 would be reduced to non-significant effects.

Visual

7.10.36 Effects upon visual receptors during operation are presented within the Visual Baseline and Impact Schedules in Appendix 7.4, Volume 6.3 and summarised in Figure 7.7 Visual Impacts Plan of Volume 6.2. Photographs from Key Views are presented in Figure 7.6a to 7.6e of Volume 6.2 and Photomontages from key views 10, 12, 26 and 34 are presented in Figures 7.8a to 7.8l, Volume 6.2, with an accompanying methodology in Appendix 7.5, Volume 6.3. Key views selected to be produced as photomontages were chosen based on their potential for significant effects during construction and at Year 1.

7.10.37 Of the 45 visual receptors identified, 6 receptors would experience significant adverse effects during Year 1 of operation. Due to the proximity of the scheme it would not be possible to reduce the impacts of the scheme without limiting or degrading the overall view in the future. By Year 15, mitigation planting would have matured to aid the integration and screening of the scheme and the surrounding area. As such by Year 15, no visual receptors would experience a Moderate Adverse or Large Adverse effect and only 6 would experience Slight Adverse effects. It is also expected that there would be Slight Beneficial effects on 1 receptor in Year 1 and 12 receptors in Year 1. Slight Beneficial effects are expected where the A303 would no longer be visible due to screening bunds, screening vegetation or the proposed scheme being in cutting and no longer visible. Visual receptors reporting significant effects during operation have been

extracted from the Appendix 7.4 Visual Baseline and Impact Schedules of Volume 6.3 and are available in Table 7.10 below for reference.

7.10.38 A summary of effects upon each receptor type are presented below.

Residential receptors

7.10.39 In Year 1 of operation, 2 residential receptors view 9 and 19 report significant effects, both report Moderate Adverse effects, due to the close proximity of the receptors to the scheme, due to the immaturity of proposed replacement planting and the high sensitivity of the receptors. Due to the close proximity of the scheme to these receptors it is not possible to further mitigate significant effects in Year 1. Any proposed mitigation at this distance would result in degrading or restriction of the view in the long term. However, by Year 15 it is predicted that mitigation planting, including plots of trees and shrubs and hedge planting, would mature and help to reduce the visual impact of the scheme on residential receptors and integrate the scheme in the wider environment.

Public Rights of Way

7.10.40 A total of 25 PRoW were assessed as part of the scheme, 6 of which would experience significant adverse effects in Year 1 of operation. Those affected are generally within close proximity to the scheme with receptors 7, 5, 3, 1 and 16 particularly within 100 metres of the main works. By Year 15, the magnitude of change would have reduced so that effects would not be significant due to the proposed planting regime, which would have matured and integrated the scheme within the wider environment and provide a visual barrier.

Table 7.10: Significant visual effects during operation

Visual receptor no.	Visual receptor	Existing view	Proposed view during operation	Effects on visual receptors
7	View looking north from northern extent of PROW Y 27/11 (High sensitivity)	This short distance view comprises an arable field in the foreground bounded by a mature hedgerow. To the right of the view, glimpsed views of traffic on the A303 are available at the junction of the B3151 and the A303 adjacent to Wayne's Bar and Bistro. Mature trees and vegetation along the B3151 form the background of the view except where the road junction is to the right of the view.	During operation replacement planting and mitigation works would restore the linear belt of shrubs and trees that have been lost as a result of the scheme. However, glimpsed views of new signage along the B3151 would be visible in the short and middle distance over the proposed replacement hedge in the foreground. In Year 1 the immaturity of the proposed planting would result in their being no mitigating effect. The proposed Camel Cross Junction would move closer to the visual receptor as part of the scheme affording angled views of the proposed A303 as it come out of cutting. Direct open views of traffic and new signage on the dualled A303 and original A303 would be available in Year 1, creating a discordant feature in the view. As proposed native tree and shrub planting matures views of the scheme and the original A303 would be reduced. It is expected that there would be a Moderate magnitude of impact in Year 1 which would result in a Moderate Adverse effect. However, by Year 15 it is expected that there would be a Negligible magnitude of impact which would result in a Slight Adverse effect.	Year 1: Moderate Adverse Year 15: Slight Adverse
9	Representative of Wayne's Bar and Bistro bed and breakfast (High sensitivity)	Direct, short distance views are available toward the A303 which traverses the wide view. On the opposite side of the road highways signage are clearly visible in the verge and tall shrub and tree vegetation is present along the boundary of the road which limits long distance views in places. Arable land can be seen falling away in the middle distance to the left of the view and with rolling hills forming the background of the view.	During operation the existing A303 would remain in the foreground and proposed mitigation native trees and shrub planting would screen the dualled A303. However, in Year 1 while proposed planting is immature, open views would be available of the Camel Cross junction, dualled A303 and their associated traffic and signage. It is expected that in Year 1, due to the wide view and proximity of the proposed scheme, there would be a Moderate adverse magnitude of impact on the view resulting in a Moderate Adverse effect. In Year 15 when the proposed planting scheme has matured it is expected that there would be a Negligible magnitude of impact resulting in a Slight Beneficial effect.	Year 1: Moderate Adverse Year 15: Slight Beneficial
14	View looking south from Slate Lane PROW Y 27/20	This receptor affords long distance open views across falling arable farmland. In the middle distance well-established	During Operation the foreground of the view would return to arable farmland after completion of the works. The proposed Downhead Junction would be in cutting surrounded by a	Year 1: Moderate Adverse

Visual receptor no.	Visual receptor	Existing view	Proposed view during operation	Effects on visual receptors
	(High sensitivity)	hedgerows and several individual trees delineate field boundaries and provide intermittent screening of the existing A303. Where vegetation is low or missing, open views down onto traffic are available. Undulating ground and established hedges to the left of the view provide screening of the majority of traffic, with the exception of HGVs. In the middle distance of the view, Orchard Park Residential Park is partially visible to the south with the rooftops of residences in West Camel visible to the southeast. From this high vantage point Royal Naval Air Station Yeovilton is visible in the long distance. Long distance views comprise gently undulating farmland with mature hedgerows and trees delineating field boundaries. A vast undulating landscape forms the background to the view.	native hedgerow on the top of the embankment would filter views of the road along with a linear belt of native trees and shrubs on the embankment slopes. The proposed Downhead overbridge is not expected to appear as a large vertical mass within the view due to its low profile, however this would appear as a discordant feature in the rural setting. The vast, long distance view beyond the proposed scheme would remain in line with the baseline view. Whilst the new planting regime would not provide an impact in Year 1, views of the A303 and Downhead Junction would be reduced by the road being in cutting limiting the visual intrusion. However, glimpsed and open views of new signs will be available where there is no intervening vegetation or land form. The magnitude of change is considered to be Moderate, resulting in Moderate Adverse effect. By Year 15 the planting would have established to form a mature vegetated boundary, aiding the enclosure of the route corridor and the Downhead Junction. This would result in a Minor magnitude of change and a Slight Adverse effect in Year 15 of Operation.	Year 15: Slight Adverse
17	View from PROW Y 27/20 looking south (High sensitivity)	A wide, open view across an arable which falls away into the middle distance. The field is bounded to the left by a hedgerow and as land falls away the middle distance is not visible, however residential properties along the A303 however can be seen. The background of the view comprises long distance open views of gently undulating farmland with pockets of built form. The A303 and traffic are not visible in this view.	During operation the Steart Hill Link road would traverse the road from the right and into the foreground. Native tree planting would be visible in the foreground along the south side of Steart Hill Link road and would restrict views of buildings in the land in the middle distance. However, in Year 1 vegetation would be immature and would not offer a screening function. No views would be available of the A303 due to undulating land form and the proposed planting scheme. In Year 1 it is predicted that there would be a Moderate magnitude of impact in the view resulting in a Moderate Adverse effect. In Year 15 when vegetation has matured it is predicted that there would be a Minor magnitude of impact in the view resulting in a Slight Adverse effect.	Year 1: Moderate Adverse Year 15: Slight Adverse

Visual receptor no.	Visual receptor	Existing view	Proposed view during operation	Effects on visual receptors
19	View from Howell Hill representative of view from Coneygore Farm residential receptor (High sensitivity)	The view across an arable field is heavily screened to the left by a mature tree in the foreground. The arable fields in the short to middle distance are bound by a mature hedge which partially screens the traffic on the A303. In the long distance highway signage and HGVs on the A303 can be seen against the skyline at the crest of Camel Hill.	During operation the proposed replacement and mitigation planting would integrate the proposed scheme with the wider environment and land required for temporary works would be returned to their previous conditions. A proposed 2m bund on top of the proposed embankments would be planted with native planting trees and shrubs. Together these would screen views of traffic on the A303 in Year 15. However, in Year 1 views of the tops of HGVs would be available where planting is still immature. Overall, the volume of visible traffic would be reduced in Year 1 and further reduced in Year 15. It is expected that in Year 1 there would be a Minor magnitude of impact in the view resulting in a Moderate Adverse effect. By Year 15 when proposed planting has matured it is expected that there would be a Negligible magnitude of impact and resulting in a Slight Beneficial effect in the view.	Year 1: Moderate Adverse Year 15: Slight Beneficial
30	View looking northwest representative of northern extent of PROW WN 23/10 (High sensitivity)	In this location short distance open views of the A303 are available across a gently falling grassed field. Linear woodland bordering the field to the south and the north of A303 narrows the view allowing only short distance views. The Queen Camel Radio Station to the left of the view has a notable vertical presence against the skyline.	During operation of the scheme, planting would be partially reinstated along the northern edge of the widened A303 as well as a 2m high environmental barrier. However, where vegetation cannot be replaced open views would be available in the far distance. In Year 1 replacement vegetation would not have established and would provide no screening benefit. By Year 15 screening vegetation would partially restore the baseline view with filtered views being available in the middle to long distance view. Due to the dualling there would be an increase in the amount of traffic in the short distance views increasing the impact and significance of the road in the view. It is expected that there would be a Moderate magnitude of effect in Year 1 of operation before vegetation has matured, this would result in a Moderate Adverse effect. In Year 15 when vegetation has matured it is expected that there would be an overall Minor magnitude of effect due to vegetation maturing, resulting in a Slight Adverse effect.	Year 1: Moderate Adverse Year 15: Slight Adverse

Visual receptor no.	Visual receptor	Existing view	Proposed view during operation	Effects on visual receptors
38	Representative of PROW WN 23/38 and Hazlegrove Registered Park and Garden (High sensitivity)	This view looks southwest from the PROW towards the A303 and is characterised by gently undulating landform and the open parkland in Hazlegrove Registered Park. In the foreground the school access road traverses the grassland field. Individual veteran oak trees are a notable feature in this view as is the mature deciduous woodland in the middle distance that form the background of the view. Currently there are no direct views of the A303 or traffic, however glimpsed views of existing lighting columns are available over mature vegetation.	During operation, linear areas of planted native trees and shrubs, and woodland and retained vegetation along the A303 and Hazlegrove Junction would screen and filter views of the scheme. Although in Year 1 this planting would not be mature enough to provide effective screening, there would be screening from the outset created by the proposed 2m embankments alongside junction creating a false cutting, from the retained woodland vegetation and from proposed specimen trees that would screen the scheme in the centre of the view. Where a false cutting was not able to be constructed a 2m high timber fence is integrated into the bund to screen views towards the road to the left of the view. It is expected that there would be glimpsed views of traffic and HGVs over the proposed bunds and timber fence. The visibility of proposed replacement lighting columns would be available over the proposed 2m bund and immature proposed planting. A proposed sign on the proposed A303 will be partially visible over the proposed timber fence, as will passing HGVs in the left of the view. The proposed Hazlegrove Link road would form the centre of the view extending into the middle distance over undulating land to link with the Camel Link Road. In Year 1 it is expected that there would be a Moderate magnitude of impact resulting in Moderate Adverse effect. By Year 15 it is predicted that there would be a Negligible magnitude of impact resulting in a Slight Adverse effect.	Year 1: Moderate Adverse Year 15: Slight Adverse.

7.11 Monitoring

Construction

7.11.1 During the construction phase of works a CEMP would be required to establish monitoring requirements and procedures to reduce or eliminate impacts on the environment. An Environmental Clerk of Works or Site Environmental Manager would be appointed to ensure that objectives of the CEMP are upheld. The Environmental Clerk of Works or Site Environmental manager would be required to monitor construction activities that would cause likely significant effects including:

- The effectiveness and suitability of root protection fencing ensuring no impacts to trees that are to be retained. The areas of most concern are Hazlegrove RPG, residential receptors at Camel Hill, and Downhead, and highway vegetation along the southbound existing A303 adjacent to Sparkford.
- Working hours of operation of the main works and in site compounds which may produce visual, noise or lighting impacts in particular on West Camel settlement, residential properties at Howell Hill, Downhead and Camel Hill.
- The angle and direction of night time lighting, to ensure that it is not directly focussed on residential receptors in particular at Wayne's Bar and Bistro, Howell Hill, West Camel, Hazlegrove RPG and Downhead.

Operation

7.11.2 In order to enable the proposed planting regime to establish and mature to fulfil its environmental, landscape and visual function it is necessary to ensure that an appropriate management regime is undertaken. The specification for this scheme identifies a 3 year maintenance regime to ensure the establishment and maintenance of the scheme. Details would be contained within a Landscape and Ecological Management Plan (LEMP), indicative contents of which are shown in Annex B.7 of the **OEMP (document reference TR010036/APP/6.7)**.

7.11.3 A Handover Environmental Management Plan (HEMP) would also be required after the establishment period to identify and stipulate the correct long term maintenance goals and requirements for the planting strategy to reach its full potential. Landscape Elements and Environmental Functions have been provided within Figure 2.8 Environmental Masterplan of Volume 6.2 to indicate the long term intentions of the proposed scheme and potential maintenance.

7.12 Conclusions

7.12.1 The potential effects upon the 7 LCAs has been assessed as part of this landscape assessment. Of the 7 identified, 2 would experience Significant

Adverse effects during construction for a temporary period. In Year 1, only 1 of the LCAs would be expected to experience significant effects (Hazlegrove LCA 2). By Year 15 there would be no residual significant effects upon landscape in any of the LCAs. A summary of the effects on LCAs during both construction and operation are listed in Table 7.11 below.

Table 7.11: Summary of landscape effects during construction and operation

Significance of effect	LCAs affected during construction	LCAs affected during operation
Large Adverse	LCA2	
Moderate Adverse	LCA6	LCA2 (Year1)
Slight Adverse	LCA1	LCA6 (Year 1), LCA1 (Year 15), LCA2 (Year 15)
Negligible	LCA7	LCA7 (Year 1), LCA1 (Year 1), LCA6 (Year 15)
Neutral	LCA3, LCA4, LCA5	LCA3 (Year 1), LCA4 (Year 1), LCA5 (Year 1), LCA3 (Year 15), LCA4 (Year 15), LCA5 (Year 15), LCA7 (Year 15)

7.12.2 The potential effects on visual amenity have been addressed through the assessment of 45 receptors identified within the study area. During the assessment and design of the scheme 1 of these receptors has been removed due to the receptor being removed as part of the scheme. Of the remaining 44 receptors assessed, 16 receptors would experience significant effects during construction. By Year 1 this would reduce to 7 receptors experiencing significant effects, and in Year 15 there would be no visual receptors experiencing significant effects.

7.12.3 Positive effects as a result of the scheme are predicted for 12 visual receptors which would experience Slight Beneficial effects in Year 15, and of these receptors, 1 (Key View 12) would experience a Slight Beneficial effects in Year 1. Where Slight Beneficial visual effects are predicted this is due to one or a combination of the following:

- Implementation of tree and shrub planting along the A303 corridor where open views of the A303 existed in the baseline view.
- Construction of screening bunds, false cuttings or the placement of the proposed A303 in cutting, reducing the visibility of traffic and infrastructure on the road.
- Reduction in traffic on the retained section of the existing A303, where existing traffic is present in the baseline view.

7.12.4 A summary of effects on visual receptors are listed in Table 7.12 below.

Table 7.12: Summary of visual effects during construction and operation

Significance of effect	Number of visual receptors affected during construction	Number of visual receptors affected in Year 1 (operation)	Number of visual receptors affected in Year 15 (operation)
Very Large Adverse	1		
Large Adverse	8		
Moderate Adverse	7	7	
Slight Adverse	17	13	6
Negligible			
Neutral	11	24	26
Slight Beneficial			12
Not applicable	1	1	1

7.12.5 The evidence provided in the ES supports the accordance statement provided in the ***Case for the Scheme (document reference TR010036/APP/7.1)***.