



SDNP Landscape and Visual Impact Appraisal  
and effects on the Public Right of Way network

A27 Worthing section: Busticle Lane junction re-alignment

April 2017

## **Contents**

- 1. Introduction**
- 2. Purpose of Study**
- 3. Scope**
- 4. South Downs National Park - background**
- 5. Status of Development Plan documents**
- 6. Methodology for assessment of landscape and visual effects**
- 7. Landscape-related Local Planning Policy (Busticle Lane junction)**
  - a. applicable to the SDNP in the Adur District Council area**
  - b. applicable to the setting of the SDNP in the Adur District Council area**
- 8. Landscape Baseline (Busticle Lane junction)**
- 9. Visual baseline (Busticle Lane junction)**
- 10. Summary of potential effects on the range of receptors identified (Busticle Lane junction):-**
  - a. Potential effects on the footprint and the immediate vicinity of the proposed Busticle Lane junction re-alignment**
  - b. Potential effects of the proposed Busticle Lane junction re-alignment on the overall character of the surrounding landscape and the visual experience from within that landscape**
  - c. Potential effects of the proposed Busticle Lane junction re-alignment on the Public Right of Way network and connectivity to the SDNP**
- 11. Conclusions**
- 12. References**

**Appendix I Contextual Maps**

- i. Landscape character
- ii. Tranquillity
- iii. PROW, Access and Floodzone
- iv. Historic Landscape Character (period)
- v. Historic Landscape Character (type)
- vi. Historic Environment
- vii. Biodiversity
- viii. Promoted viewpoints
- ix. Topography

**Appendix III Analysis of physical / landform effects and PRow connectivity implications of the proposed road improvement options**

Figure 17, Landform and physical effects, and effects on the PRow network / connectivity to the SDNPA (Worthing section: Busticle Lane junction re-alignment)

**Appendix IV Analysis of potential effects on the footprint and the immediate vicinity of the proposed A27 improvement options**

Spreadsheet analysis

**Appendix V Photographic record of baseline conditions**

*Figures 18-34, Receptor groups 1-11*

**Appendix VI Analysis of potential effects on the overall character of the surrounding landscape and the visual experience from within that landscape.**

Spreadsheet analysis of the Worthing section, proposed Bustile Lane junction re-alignment

## **1. Introduction**

- 1.1. During 2015 the SDNPA was invited to meet with representatives from Highways England to be informed and consulted about the proposals to fund and deliver improvements to the A27 corridor through government funding.

A number of improvement schemes along the A27 were discussed including Arundel, East of Lewes, Worthing and Chichester.

## **2. Purpose of Study**

- 2.1. This study considers the summary likely landscape and visual impacts of the route options for the proposed A27 Busticle Lane junction re-alignment, at Worthing.
- 2.2. Impacts on the PRoW network / connectivity with the SDNP are assessed as part of this study. Similarly, impacts on Strategic Built Heritage are assessed alongside this study, undertaken as a separate exercise by Nexus Heritage, with its findings incorporated within and informing this broader report. The report by Nexus Heritage is appended.
- 2.3. This study has been undertaken prior to public consultation in order to inform SDNPA members and officers of likely impacts on the SDNP where they can be predicted at this stage in the process. It is notable that detailed design information will not be developed until the preferred route is selected following the public consultation process.

## **3. Scope**

- 3.1. This is not a complete Landscape and Visual Impact Assessment, although the process of analysis broadly follows the GLVIA3 Landscape and Visual Impact Assessment guidance recommendations. Landscape and Visual effects have been considered from a combination of desktop study and fieldwork based on the information available at the present time. It will differ from the assessment carried out by Highways England as it follows a different set of criteria and methodology. The methodology in this study is reflecting Landscape and Visual effects on the SDNP and its setting, and it is written and undertaken with this focus.

## **4. South Downs National Park - background**

- 4.1. The National Park covers an area of over 1600km<sup>2</sup> and is a highly diverse and varied landscape. It was designated as National Park in 2010, the area having been previously designated as the Sussex Downs Area of Outstanding Natural Beauty and the East Hampshire Area of Outstanding Natural Beauty (AONB). Both AONB designations were revoked on 31 March 2010.
- 4.2. National Parks were designated originally under the National Parks and Countryside Act of 1949 and subsequently the Environment Act 1995 which revised the original legislation and set out two statutory purposes for National Parks in England and Wales:
  - *Conserve and enhance the natural beauty, wildlife and cultural heritage;*
  - *Promote opportunities for the understanding and enjoyment of the special qualities of National Parks by the Public*



When pursuing these purposes in National Parks, there is also a duty to:

- *Seek to foster the economic and social wellbeing of local communities within the National Parks*

In cases where there is conflict between the two *purposes* the Sandford principle will apply – that is, the first *purpose* takes priority.

## **5. Status of Development Plan documents**

5.1. In accordance with recommended guidance a short section of this report considers the planning context of the area of study. It is understood that the preferred route for the A27 improvement scheme, will go through the Infrastructure planning procedure, rather than through the local authority planning process. The proposals will be submitted to the Planning Inspectorate for approval of a Development Consent Order (DCO) on the grounds of national interest. It is not known how much weight is given to local plan policy in the DCO process. Nonetheless, it is considered appropriate to acknowledge the relevant development plan policies applicable to land within the South Downs National Park, and outside the National Park under the Planning policy jurisdiction of Adur District Council. Relevant policy documents are as follows:-

- South Downs Local Plan (Preferred Options version, September 2015).
- Adur District Local Plan (1996)
- Adur Local Plan (Amendments to the Proposed submission version, 2016)
- National Planning Policy Framework

## **6. Methodology for assessment of landscape and visual effects**

- 6.1. The assessments of landscape and visual effects take into account a range of criteria in accordance with the GLVIA3. The potential effects of the proposed road improvement options are measured against the existing Baseline Conditions. The significance of potential landscape and visual effects are determined as a factor of the receptor's sensitivity combined with the magnitude of the landscape or visual change that the receptor would experience.
- 6.2. A systematic approach has been taken to assess the effects of the proposed road improvement options on the overall character of the surrounding landscape and the visual experience from within that landscape. The computation of this assessment is recorded in a matrix form, in Appendix II.
- 6.3. Assessment of the effects on the footprint and the immediate vicinity of the proposed re-alignment routes and the on-line road improvement option has not been undertaken quantitatively, as the physical and visual effects would be inherently wholesale (or at least very high in magnitude). Accordingly, computation of these effects would inevitably identify highly significant impacts, and it is therefore considered appropriate to discuss these effects in a narrative way, rather than systematically.

6.4. Similarly, the need for a systematic assessment of the potential implications of the road improvements for connectivity to the wider PRow network, and the relationship that has to the SDNPA's Statutory Purposes. It is considered appropriate to discuss these effects in a narrative way, rather than systematically.

6.5. Baseline Conditions

6.6. In relation to the systematic assessment of the potential effects of the proposed road improvement options, photographs of each of the representative viewpoints are included in Appendix III, although these are best viewed separately in Windows photoviewer for the best resolution. (Link to be added). These are arranged into groups relating to visual experiences that are similar in nature, and in location. These also relate broadly to landscape character areas as identified by the published landscape character assessments. Each of these groups (as a composite of the representative viewpoints) is considered as a single visual receptor.

6.7. In assessing the baseline conditions, the following is taken into consideration, with relevant notes made in the assessment matrix in Appendix II:-

- *Landscape receptor key components* (i.e. the components of Landscape Character Area that have a relationship to the receptor being considered). In addition to the broader landscape characteristics, other specific factors are noted where relevant, considering the following:-
  - Identification of the Historic Landscape Character types, and heritage assets and the overall context in relation to character. Impacts on Heritage assets are considered in study undertaken by Nexus Heritage, appended to this study.
  - Identification of the Biodiversity assets in the area of search. The degree to which they are affected is assessed in a separate report.
  - Identification of the pattern of the landscape, including the general arrangement of settlements and the surrounding fieldscapes.
  - Degree to which tranquillity is part of the experience of being in the landscape. 'Tranquil and unspoilt places' is one of the Special Qualities of the SDNP, Tranquillity is assessed through considering a combination of hearing and not hearing things and seeing and not seeing things – it is not only about noise. Any signs of human activity can erode tranquillity. In LVIA, 'Scenic quality' is term given to landscapes that appeal to all the senses. These are perceptual qualities which can only be judged subjectively. However, as they are more than just an assessment of visual effect, they are considered as a factor of assessing Landscape effects, rather than Visual effects.
- *Visual receptor key components* (i.e. a description of what the viewer is seeing (the view composition)).

6.8. Sensitivity

6.9. This is a combination a receptors value and its susceptibility to change.

- *The relative value* attached to a landscape or a particular view by society can be understood through relevant designations, published material (such as a promoted beauty spot), recognised cultural and historic associations etc. Within this study, landscape and visual receptors are generally considered to have higher values

attached, as a virtue of the National Park designation, or by association as the setting of a National Park.

- *Susceptibility to specific landscape change* identifies the ability of the receptor to accommodate a proposed development without undue consequence for maintaining the baseline situation, or the achievement of landscape planning policy or strategies. Within this study, the implication of the proposed A27 improvements in relation to achieving the SDNPA's statutory purposes is a consideration for each receptor's susceptibility to landscape change.
- *Susceptibility to specific visual change* identifies the occupation or activity of the visual receptor, and the extent their attention or interest is likely to be focussed on the visual amenity afforded at that location. Within this study, visual receptors are generally considered to be people engaged in outdoor recreation (e.g. walking, horse-riding, cycling) whose attention or interest is likely to be focused on the landscape. Accordingly, these receptors are recorded as having a high level of susceptibility to change.

6.10. Magnitude of change

6.11. This is the degree to which the Landscape or Visual Baseline Conditions (specifically considering the key components of landscape character, key landscape features or, key components of a view composition) would be changed by the proposed development, including a judgement as to whether the change would be beneficial or adverse.

6.12. Assessing the potential magnitude of change takes into consideration the size or scale of the change (eg. the proportion of the loss of the key landscape components or features, the degree to which the experience of the landscape is altered, and the proportion of view composition altered by the loss or addition of key visual components). Also taken into consideration are the extent of the change (the geographical footprint of landscape effects, or the distance of any visual interconnectivity and the angle of view in relation to the visual receptor's main activity). LVIA also makes judgements on the duration and reversibility of the potential effects, although in relation to every receptor in this study the road improvements are considered to be long-term, and not reversible.

### 6.13. Significance of effects

The combination of landscape sensitivity and the magnitude of change concludes the assessment by assessing the level of significance of the likely effects as shown in the table below:

Magnitude of change/landscape effect		Sensitivity of Landscape		
		HIGH	MEDIUM	LOW
	Major adverse	Major Adverse Significance	Major/Moderate adverse significance	Moderate adverse significance
	Moderate adverse	Major/Moderate adverse significance	Moderate adverse significance	Moderate/Minor adverse significance
	Minor adverse	Moderate adverse significance	Moderate/Minor adverse significance	Minor adverse significance
	Negligible	No Significance	No Significance	No Significance
	Minor beneficial	Minor beneficial significance	Minor beneficial significance	Minor beneficial significance
	Moderate beneficial	Moderate beneficial significance	Moderate beneficial significance	Moderate beneficial significance
	Major beneficial	Major beneficial significance	Major beneficial significance	Major beneficial significance

## 7. Landscape-related Local Planning Policy (Busticle Lane junction):-

- 7.1. Relevant planning policy applicable to the SDNP adjacent to the proposed Busticle Lane re-alignment (in the Adur District Council area) is currently the Adur District Local Plan (1996). The South Downs Local Plan, Preferred Options (September 2015) was published for Regulation 18 consultation in 2015.
- 7.2. Relevant planning policy applicable to the setting of the SDNP adjacent to the proposed Busticle Lane re-alignment (i.e. under the jurisdiction of Arun District Council) is currently the Adur District Local Plan (1996). The Adur Local Plan (amendments to the Proposed submission version, 2016).

## 8. Landscape Baseline (Worthing, Busticle Lane junction)

### 8.1. Context and background

In accordance with the Guidelines for Landscape and Visual Impact Assessment (GLVIA3) the first stage of an assessment is to establish the baseline information from which the impacts of any change in the landscape can then be assessed. The following section describes the wider context of the study area. There are a series of maps included in Appendix I which show a range of contextual information for the study area. This includes information on the Biodiversity, Public Rights of Way network, Historic Environment, Floodzone, Historic Landscape Character, Landscape character, Tranquillity, Topography and promoted viewpoints. These help to explain the broad landscape characteristics of the area of search centred on the proposed improvement of the Busticle Lane A27 junction.

### 8.2. Landscape Character

- 8.3. National, County and District level landscape character assessments cover the area taken as being the baseline context for the purposes of studying the effects of the proposed

improvement of the Busticle Lane A27 junction. However, the part of that area which is outside the SDNP (i.e. within the setting of the SDNP) is disregarded by County and District level landscape studies, due to being a built-up settlement.

8.4. Inside the South Downs National Park, the National, County and District level studies are not considered to be as relevant or appropriate as the South Downs Integrated Landscape Character Assessment 2011 (SDILCA). For the purposes of this study the SDILCA is considered to be the appropriate characterisation information covering the area taken as being the baseline context for the purposes of studying the effects of the proposed improvement of the Busticle Lane A27 junction.

8.5. The following has been drawn from the key characteristics noted within the published study in relation to the relevant LCA;

8.5.1. Arun to Adur Open Downs, A3 (SDILCA)

Key characteristics (inter-alia) are as follows:-

- Vast open rolling upland chalk landscape of blunt, whale-backed Downs
- Dominated by large scale irregular fields of arable and pasture (of 20th century date) bounded by visually permeable post and wire fencing or sparse thorn hedgerows creating a very open landscape supporting a range of farmland birds. Hedgerows and tracks survive from the earlier manorial downland landscape.
- Occasional scrub and woodland on steeper slopes and beech clumps on hill tops contribute to biodiversity and provides visual texture in the landscape.

8.6. It should be noted that the Arun to Adur Open Downs covers a very wide area, and the descriptions of key characteristics are not necessarily reflective of the key characteristics at its very edge, as-in the area of relevance to this study, in the immediate context of Busticle Lane. Accordingly, it is important to undertake an assessment of baseline landscape character at a local scale. That assessment has been undertaken, and is set-out as follows:-

8.6.1. Upper Brighton Road and Halewick Lane.

Key landscape components of Scenic quality / tranquillity experienced are as follows:-

- Settlement edge, with a mixture of built-form and arable fieldscape in the scene.
- Gently sloping topography
- The busy A27 trunk road is the most notable landscape component, with large volumes of traffic and infrastructure such as lighting and signage eroding the scenic quality.
- Tranquillity is fundamentally compromised by the movement and noise of traffic on the existing A27.

8.6.2. Dankton Lane.

Key landscape components of Scenic quality / tranquillity experienced are as follows:-

- Open fieldscape.
- Sense of elevation
- Settlement edge, with a mixture of built-form and arable fieldscape in the scene.
- Gently sloping topography
- The busy A27 trunk road is notable, with large volumes of traffic and infrastructure such as lighting and signage eroding the scenic quality.

- Tranquillity is compromised to some extent by the movement and noise of traffic on the nearby existing A27.

#### 8.7. Tranquillity

- 8.8. Tranquillity is one of the Special Qualities of the SDNP described as 'Tranquil and unspoilt places'. Tranquillity is an imprecise concept to plot, measure and evidence, being identified in the benchmark CPRE National study of 2008 as a combination of 'hearing' and 'seeing' and 'not hearing' and 'not seeing' features, which consist of 44 negative and positive qualities. The resulting scoring system is based on analysis of the content of 500 x 500m squares using OS mapping and aerial photography. It is difficult to analyse the scoring of squares as the score totals do not set out how each square has been scored for all of the 44 qualities. Therefore it is not considered useful for precisely assessing likely impacts of development. In accordance with next generation Tranquillity Studies which have sought to develop the CPRE methodology to a more robust evidence - SDNP has undertaken a review of the CPRE data through a ground proofing programme and produced an adjusted dataset.
- 8.9. A map of the study area showing tranquillity scores is included in Appendix I of this report. Broadly speaking it shows high levels of tranquillity in the landscape away from settlement and the existing A27. Realignment of the A27 would have impacts on Tranquillity which could be both positive and negative depending on the route.
- 8.10. For the purposes of this study the LCA descriptions, field work and common sense have been relied on to inform the assessment table and provide information about tranquillity.
- 8.11. It is worth noting that vehicular noise can have implications for levels of tranquillity, and changes to the baseline conditions of vehicular noise emissions (i.e. the re-alignment of a road and therefore the re-positioning of the source of noise emissions) could be a significant part of the identified landscape effects. However, variable environmental factors such as prevailing wind can both mask noise from a certain source (i.e. road noise), or conduit noise towards a receptor. The prevailing wind in the study area is from the south west. The road noise from the A27 is therefore generally carried northwards into the SDNP.
- 8.12. PROW and Access in relation to the proposed Busticle Lane junction improvement, and the A27 Worthing section as a whole
- 8.13. The PROW network is an important key characteristic of the landscape setting of the proposed improvement of the Busticle Lane A27 junction. It is also one of the most direct ways that the SDNP's second statutory purpose is achieved as enjoyment of the special qualities of the SDNP is often experienced from the PROW network.
- 8.14. National Parks are for everybody and one of the purposes of National Parks is to promote opportunities for the public to understand and enjoy their special qualities. Public bodies, including HE, are required to have regard to National Park purposes under section 62 of the Environment Act 1995. The South Downs National Park has a large resident population (112, 000) and an even greater population on its doorstep. The urban centres along the coastal strip, including Worthing and its surroundings, are home to significant numbers of residents without cars with few opportunities to access the countryside. Some of these same

residents experience health inequalities which could in part be addressed through better access to greenspace and the health and wellbeing opportunities offered by National Parks.

- 8.15. The A27 presents a significant barrier to access in the National Park. This is particularly true for non-motorised users (NMUs) and for communities along the coastal strip in Worthing, Lancing, Shoreham and Brighton. While there are some good NMU routes such as the Downs Link (a shared use path extending some 37 miles from Shoreham to Guildford), other historic rights of way have been severed by the A27 and other major roads and where crossings exist they are few and far between, often at grade and considered dangerous to use because of volumes of traffic.

8.16. Historic Landscape Character Assessment

The Pan Sussex Historic Landscape Characterisation study was completed by Dr Nicola Bannister in 2010. It shows that the landscape context of the proposed Busticle Lane re-alignment broadly demonstrates a continuity of its key characteristics since the Post-Medieval to Modern era. The field through which the re-aligned road would pass is considered to be an informal fieldscape from that era. The surrounding streets are considered to be expansion suburb from the Post Medieval to Modern era, or the Modern to WWII era.

- 8.17. Halewick Farm lies just over 200m to the north of the proposed Busticle Lane re-alignment. The Pan Sussex Historic Landscape Characterisation study indicates that the collection of buildings here have their origins in the Medieval to Post Medieval era, and the plot of land to its west is a formal enclosure (planned/private) dating from the same era.

8.18. Historic Environment

Just over 200m to the north of the proposed Busticle Lane re-alignment, Halewick Farmhouse and a barn to the west of the farmhouse are both Grade II listed buildings. The barn is an 18<sup>th</sup> century long building of flints with a hipped slate roof. The farmhouse is an early 19th century exterior to a possibly earlier building.

- 8.19. Just over 800m to the west of the proposed Busticle Lane re-alignment, Sompting Abbots (now a Preparatory School) is a Grade II listed building (built in 1856). Within the same cluster of buildings (on the opposite side of Church Lane), the Parish Church of St. Mary is a Grade I listed building (dating from the 11th to 12th century), and the adjacent Church Farmhouse is a Grade II listed building (dating from the 18th century, but very altered in the 19th century).

- 8.20. The area around Sompting Abbots and the parish church is designated as a Conservation Area, with just under 500m between the eastern edge of the conservation area and the closest part of the proposed re-alignment of the Busticle Lane junction.

8.21. Biodiversity

Lancing Ring local wildlife site is just over 0.5km away but has houses between the wildlife site and the proposed junction improvement and so there is unlikely to be any impact on this site.

- 8.22. The land at the proposed junction improvement site is currently agricultural land in arable cultivation, which will have low biodiversity value. There is a boundary hedge between the fields and the current A27 which will be lost and has some biodiversity value for birds and invertebrates.

8.23. Key landscape features within the study area

- Settlement edge, with a mixture of built-form and arable fieldscape

- The busy A27 trunk road is the most notable landscape component, with large volumes of traffic and infrastructure such as lighting and signage eroding the scenic quality.
- Gently sloping topography
- Tranquillity is compromised by the movement and noise of traffic on the existing A27.
- The study area is not well served for PRoW, although a bridleway leads northwards from Dankton Lane.
- Other PRoW and potential recreational routes such as rural lanes are severed by the existing A27, and are not considered to be a viable north-south connection into the SDNP.
- The immediate context of the proposed Busticle Lane junction re-alignment is not considered to be historically significant (as a Post Medieval to Modern informal fieldscape, surrounded by Post-Medieval to Modern, or Modern to WWII expansion suburb).
- Heritage Assets occur in the periphery of the study area, such as the Listed buildings at Halewick Farm (approximately 200m to the north), and several listed buildings within the Sompting Conservation Area (approximately 500m to the west).

## **9. Visual baseline (Busticle Lane junction)**

9.1. Viewpoints to inform this study have been selected by observations in the field. The visual composition is formed of the following components:-

### **9.1.1. Views from Upper Brighton Road and Halewick Lane.**

Key components within the view composition are as follows:-

- Foreground view of the metalled surface of the existing A27 highway, with vehicles travelling on it, and associated infrastructure such as street lighting and signage.
- Foreground view also of the open expanse of arable field, bound by native hedgerow.
- From some viewpoints, the existing A27 may be considered to be the most notable foreground visual component, as the eye is drawn to the complexity of that scene rather than the monotony of the arable field.
- Middle-distance views tend to be of built-form (residential streets at the settlement edge).
- Distant views are of local hillsides, with a horizon of hilltops. In some places the hillsides are covered with scrubby vegetation. In some places the horizon is wooded. Elsewhere open arable fields feature in the view composition.

### **9.1.2. Views from Dankton Lane.**

Key components within the view composition are as follows:-

- Foreground view of an open fieldscape of rough grassland, which may be arable field left fallow. This space is essentially void of features.
- Middle-distance view most notably of built-form (residential streets at the settlement edge).
- The middle-distant view composition (immediately in-front of some of the built-form) also contains a small immature woodland block
- The middle-distant view composition (immediately in-front of some of the built-form) also contains the busy A27 highway, with a native hedgerow running alongside (and screening the metalled road-surface from view). Vehicles travelling on the road, and associated infrastructure such as street lighting and signage are notable.
- Distant view of settlement (including large industrial buildings) on the coastal plain, and beyond to the sea.



## **10. Summary of potential effects on the range of receptors identified (Busticle Lane junction):-**

### **10.1.1. General note regarding the design information provided to date**

Our assessment of potential effects is made on the basis of design information provided by Highways England, and accordingly there is a direct relationship between the accuracy of the design information and the reliability of our assessment. The design drawings provided by Highways England are in a low resolution electronic format, lacking legibility in places. Therefore, the assessment below is in-part subjective, and based on some assumptions. It should be regarded only as a high-level account of the potential effects, if interfaces between the proposed road improvements and surrounding landscape features are not positively addressed by the highway designers.

### **10.2. Potential effects on the footprint and the immediate vicinity of the proposed Busticle Lane junction re-alignment**

Refer to Appendix IV

#### **10.2.1. Land form**

Technical drawings have not been provided for the benefit of this assessment. However, observation in the field indicated a slight level change between the existing A27, and the adjacent field which is a little lower (no more than 1m level difference, and perhaps as little as 0.5m). This implies that the proposed new section of road extending westwards from Halewick Lane through the edge of the arable field would similarly be elevated over the adjacent land (i.e. the remaining fieldscape). This level difference is not considered to be significant in the wider landscape, and particularly considering that it is effectively offsets a level change which already occurs on the existing alignment of the A27.

#### **10.2.2. Vegetation**

Highways England design drawings provided to date indicate that a 310m length of existing thick, native field boundary hedgerow running alongside the existing A27 carriageway would need to be cleared in order to facilitate construction of the new road section alongside, and widening of the A27 carriageway. It is not clear from the design information provided to date whether there is an intent to replace that hedgerow, and accordingly our assessment is made on the basis that it might not be replaced. Accordingly, the loss of the existing hedgerow is perhaps the most notable adverse effect of the proposed road improvement works.

#### **10.2.3. Land use / Severance**

Matters relating to potential changes to the land use baseline situation, and incidences of severance are discussed within the wider context of the overall character of the surrounding landscape and the visual experience from within that landscape. Full description of that assessment work is given in the table at Appendix 12

### **10.3. Potential effects of the proposed Busticle Lane junction re-alignment on the Public Right of Way network and connectivity to the SDNP**

- 10.4. The proposed Busticle Lane junction re-alignment would not have any direct effect on the existing Public Right of Way network, or change the current situation of connectivity to the SDNP.
- 10.5. However, avoidance of further loss or degradation of NMU access should be addressed at the earliest stages of design and consultation for improvement schemes along the A27.
- 10.6. The South Downs Local Plan draft Strategic Policy SD20: Walking, Cycling and Equestrian Routes clearly outlines the Plan's ambitions in relation to reducing the barriers to access caused by major roads and railways and to seek new and enhanced connections from new development both within and outside the National Park boundary.
- 10.7. Better access could be easily achieved through the identification and prioritisation of potential crossing improvements along the A27, providing appropriate infrastructure linking settlements and new developments to the rights of way network. Infrastructure should be accessible to the largest possible range of users and therefore be designed to take into account the needs of walkers, cyclists, horse riders and people with disabilities.
- 10.8. The design drawings provided to-date suggest that improvements to north-south connections for NMU has not been a design consideration. In the context of the proposed Busticle Lane re-alignment, it would appear that the design development to-date has missed an opportunity to better connect Dankton Lane on either side of the A27 highway, and onwards to the wider SDNP via bridleway 2075.
- 10.9. Potential effects of the proposed Busticle Lane junction re-alignment on the overall character of the surrounding landscape and the visual experience from within that landscape.**

The summary table below sets out the outcomes of the assessment of landscape and visual effects (calculated as a combination of the overall sensitivity of the visual or landscape receptors and their magnitudes of anticipated change).

Receptor		Potential effects of the Busticle Lane junction re-alignment
<b>SDILCA A3:</b> Arun to Adur Open Downs	Landscape	MODERATE / MINOR ADVERSE
<b>Receptor group 9a</b> Upper Brighton Road and Halewick Lane.	Landscape	MODERATE / MINOR ADVERSE
	Visual	MODERATE ADVERSE
<b>Receptor group 9b</b> Dankton Lane	Landscape	MODERATE / MINOR ADVERSE
	Visual	MODERATE ADVERSE

## 11. Conclusions

- 11.1 We have assessed that the proposed Busticle Lane junction re-alignment would be unlikely to have significant adverse implications for the SDNP or for upholding its Statutory Purposes. The majority of potential effects on the assessed landscape and visual receptors were found to be 'moderate / minor adverse'.

- 11.2 The proposed junction improvement would involve construction of a new section of road, approximately 190m in length, extending from Busticle Lane to a point on the A27, Upper Brighton Road, approximately 140m to the west of the existing junction. In addition, the improvement works would require widening of the existing A27 carriageway for an approximately 310m length to the west of the existing junction. A roadside footway would also be provided to the north of the widened road / new road, throughout.
- 11.3 The new section of road, and additional width of the existing road would require land-take from the existing arable farmland to the north of the A27. This would be a fundamental change in the nature of this land-use from fieldscape, to highway.
- 11.4 The existing thick, native field boundary hedgerow which runs alongside the 310m length of the highway improvement section would also be lost in order to facilitate construction of the new road / widened road. The most notable effect of these works would be changes to the view composition, as a large section of hedgerow would be removed. It is not clear from the Highways England design drawings provided to date whether there is an intent to replace that hedgerow, and accordingly our assessment is made on the basis that it might not be replaced. As-such it is likely that there would no longer be a vegetative screening of the metalled road-surface from viewpoints to the north, on Dankton Lane. Similarly, (from viewpoints all around, including Dankton Lane, Upper Brighton Road and Halewick Lane) the presence of infrastructure (i.e. lighting / signage), and vehicles themselves would increase within the view composition, as a consequence of removing the existing roadside hedgerow, but also as a consequence of creating the new section of road cutting across land which is currently arable farmland, and in stark contrast to the fieldscape which would remain adjacent.

## **12. References**

South Downs Local Plan (Preferred Options version, September 2015).

Adur District Local Plan (1996)

Adur Local Plan (Amendments to the Proposed submission version, 2016)

South Downs Integrated Character Assessment: Land Use Consultants, 2011

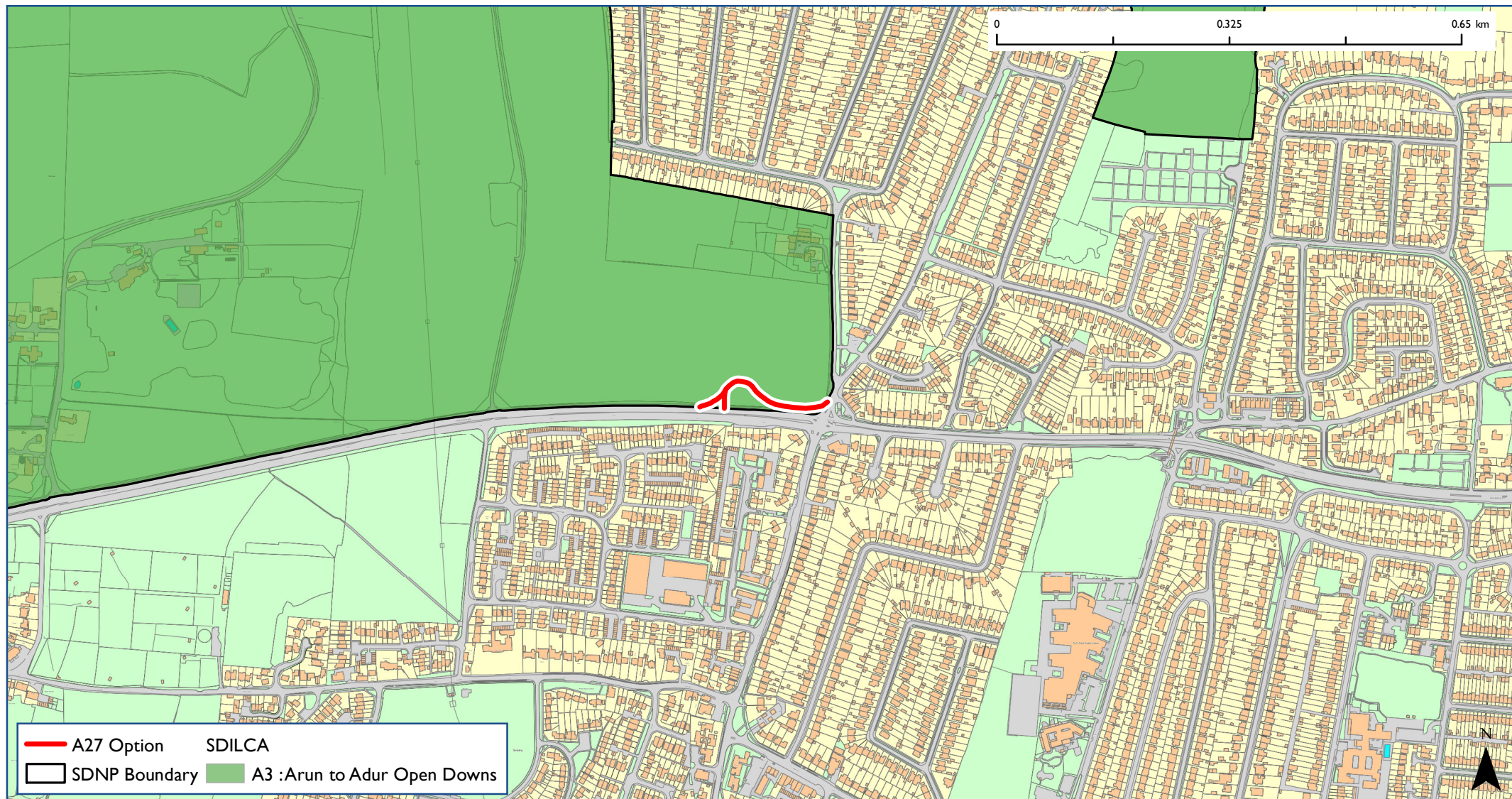
Landscape Character Assessment of West Sussex, 2003, with accompanying Land management guidelines

Sussex Historic Landscape Character Assessment, 2010, Nicola Bannister

SDNP Viewshed Study 2015 Land Use Consultants

# Worthing A27 Route Options - Landscape Context

## South Downs Indicative Landscape Character Assessment

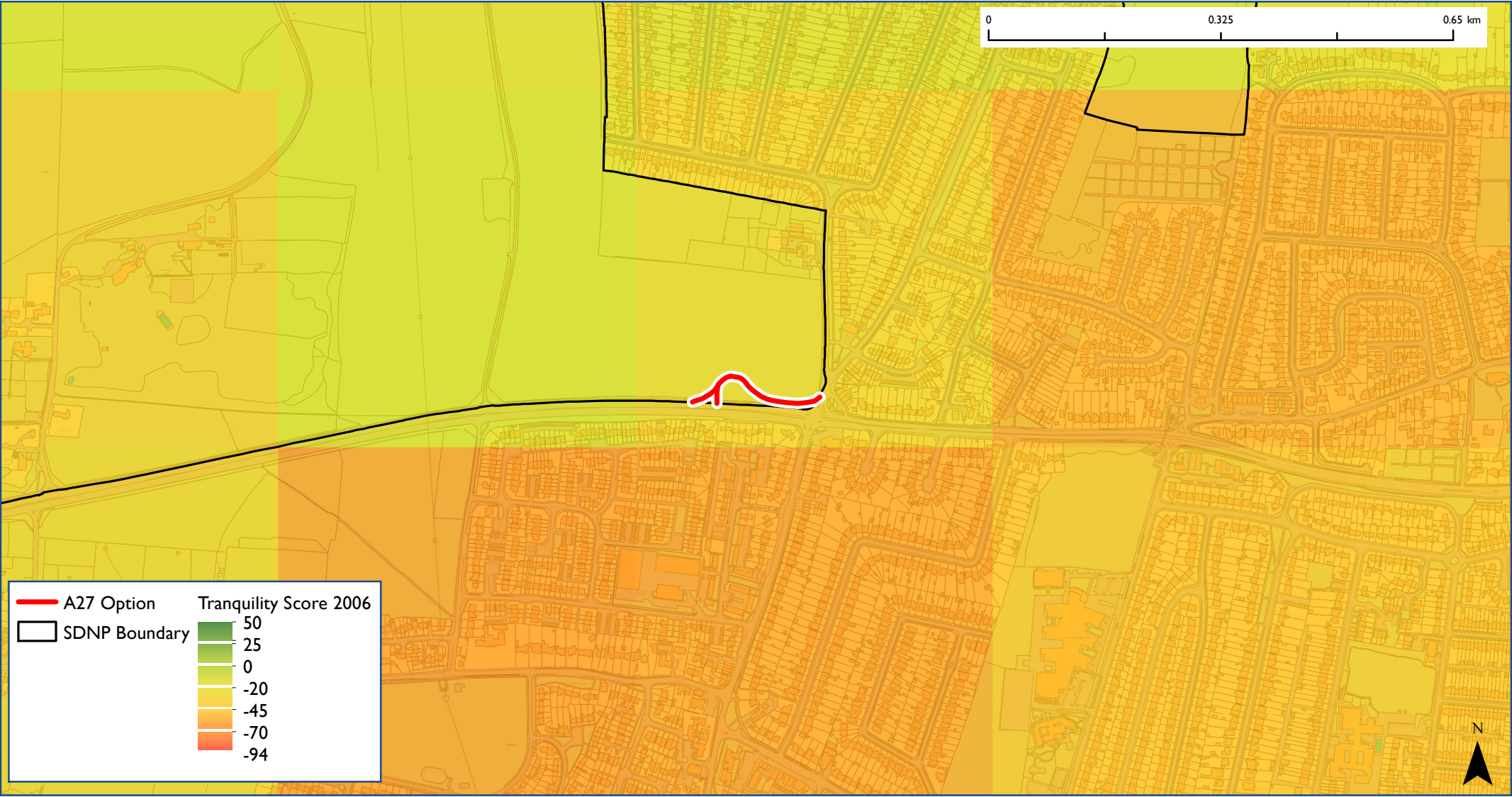


© Crown copyright and database rights 2017 Ordnance Survey 100050083

Scale at A4 1:7,500

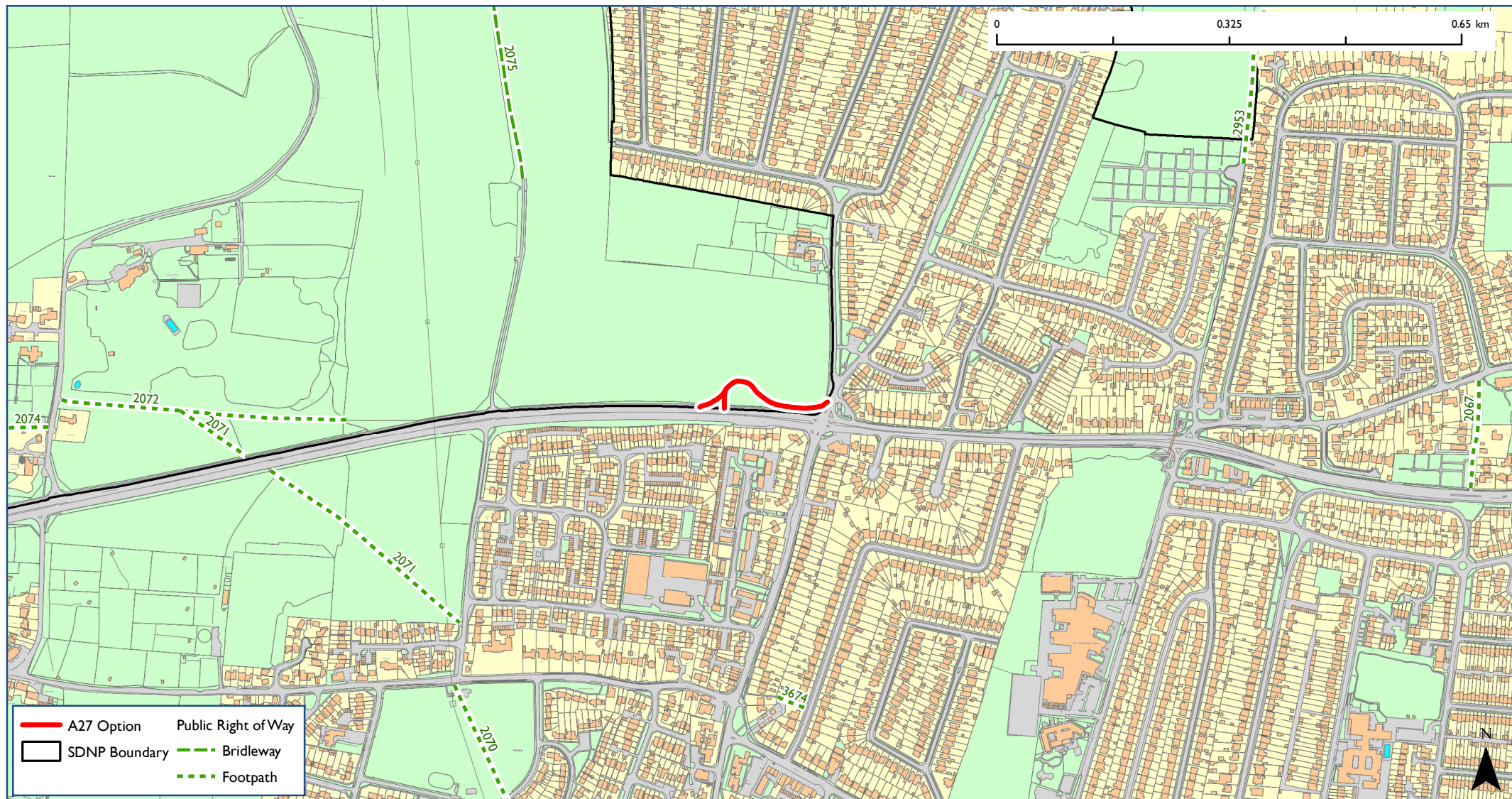


# Worthing A27 Route Options - Landscape Context Relative Tranquility





# Worthing A27 Route Options - Landscape Context Public Rights of Way and Access Land

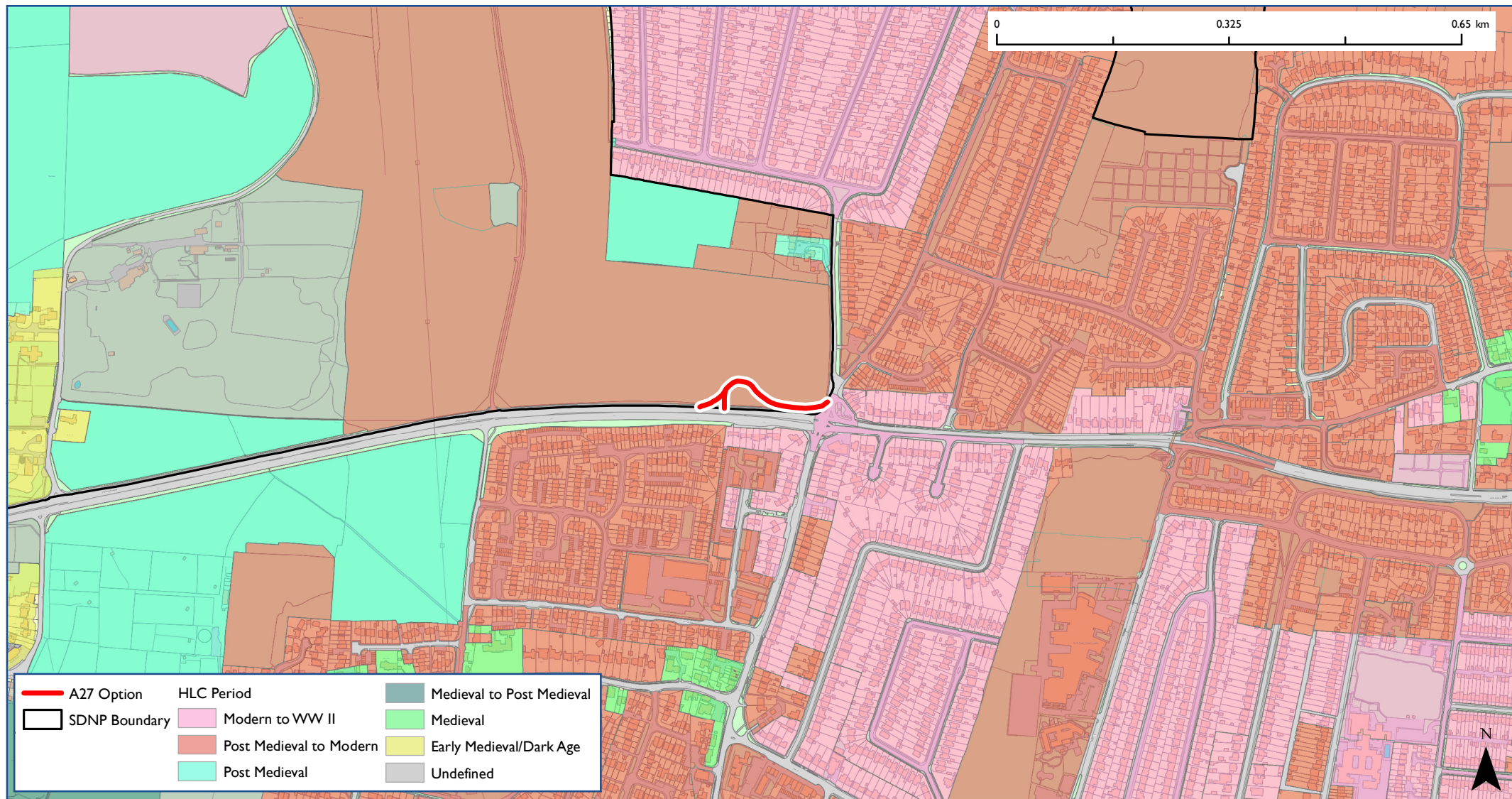


© Crown copyright and database rights 2017 Ordnance Survey 100050083

Scale at A4 1:7,500



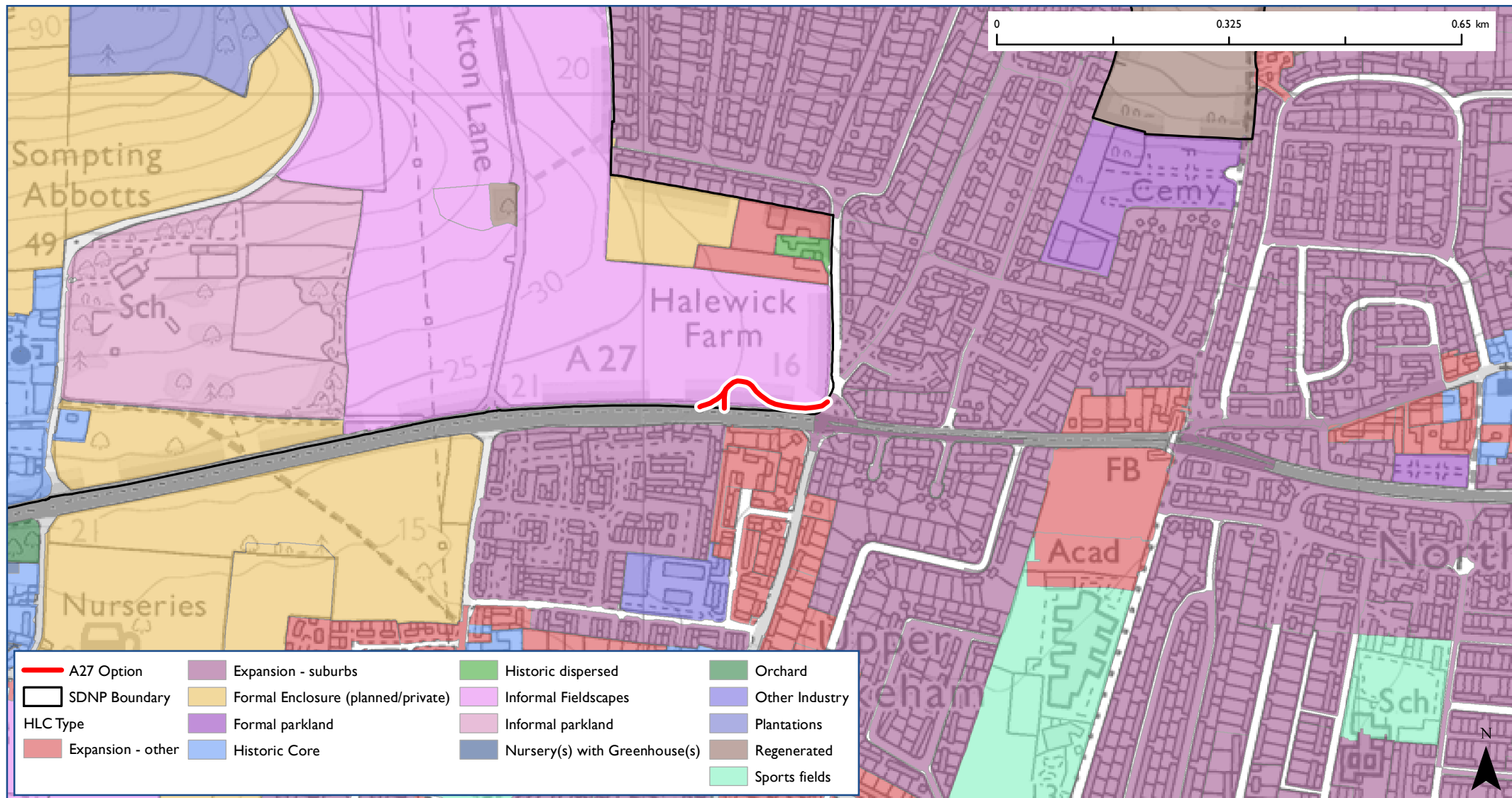
# Worthing A27 Route Options - Landscape Context WSCC Historic Landscape Character (Period)



© Crown copyright and database rights 2017 Ordnance Survey 100050083

Scale at A4 1:7,500

# Worthing A27 Route Options - Landscape Context WSCC Historic Landscape Character (Type)

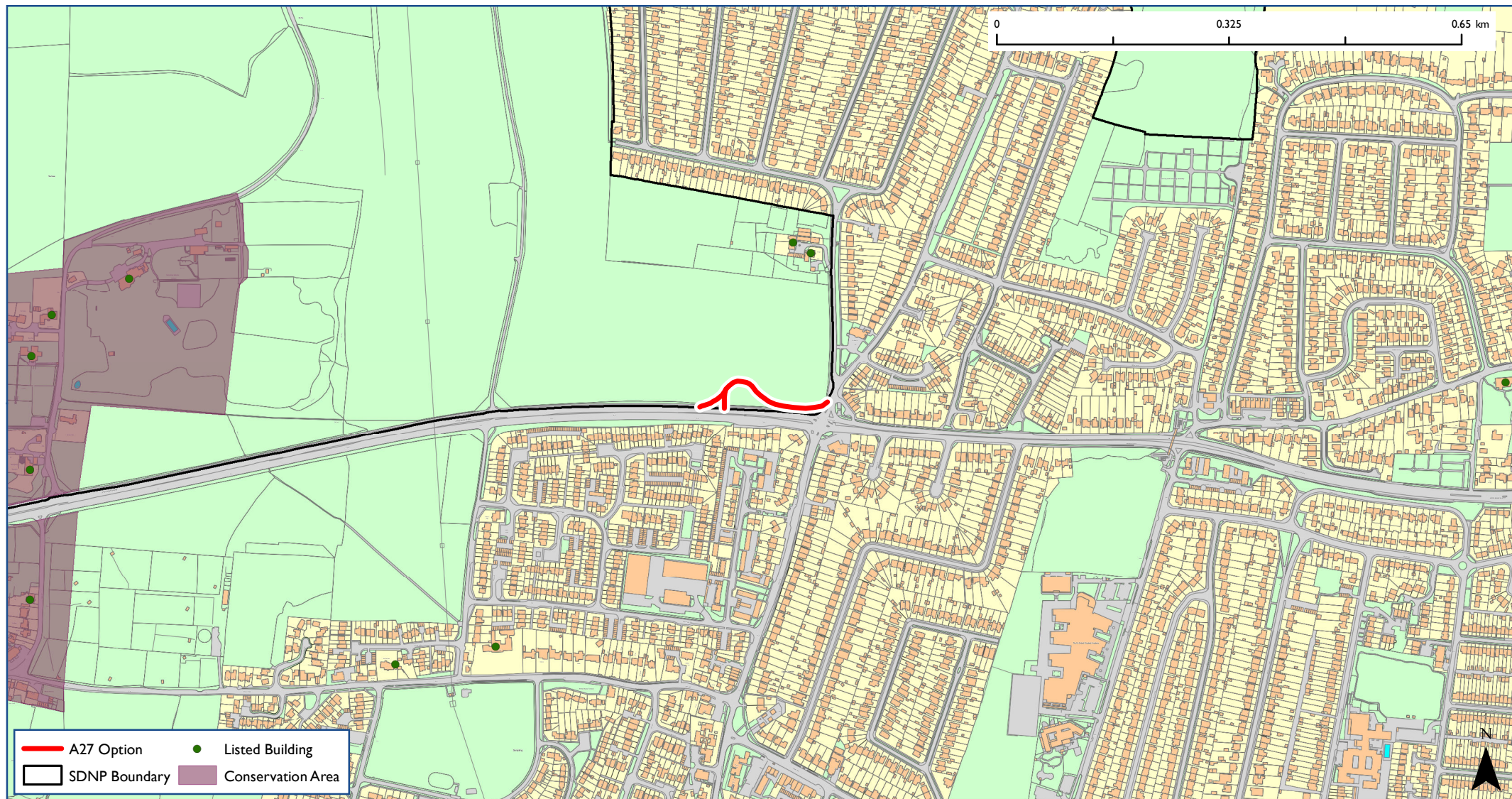


© Crown copyright and database rights 2017 Ordnance Survey 100050083

Scale at A4 1:7,500

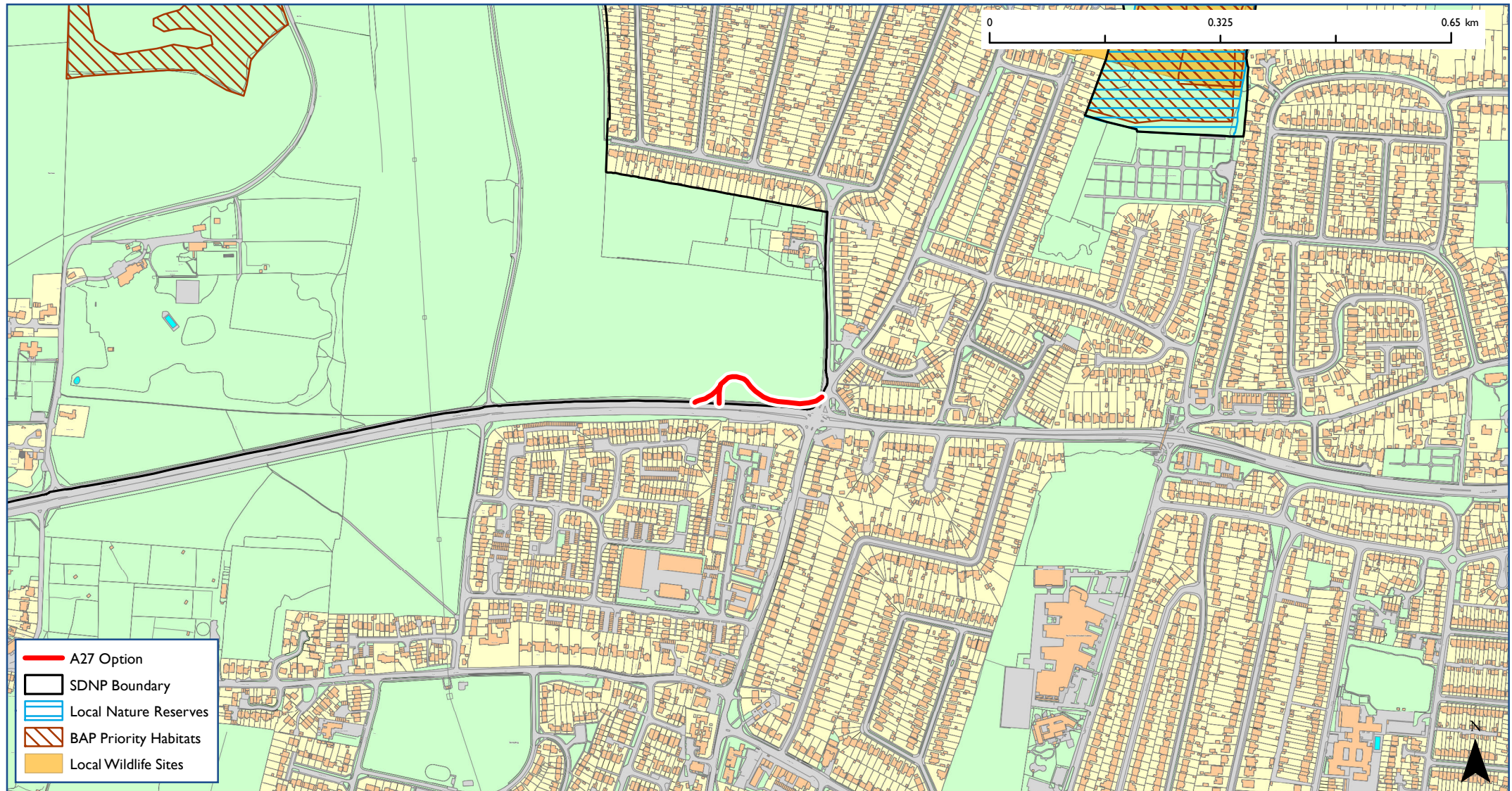


# Worthing A27 Route Options - Landscape Context Historic Environment



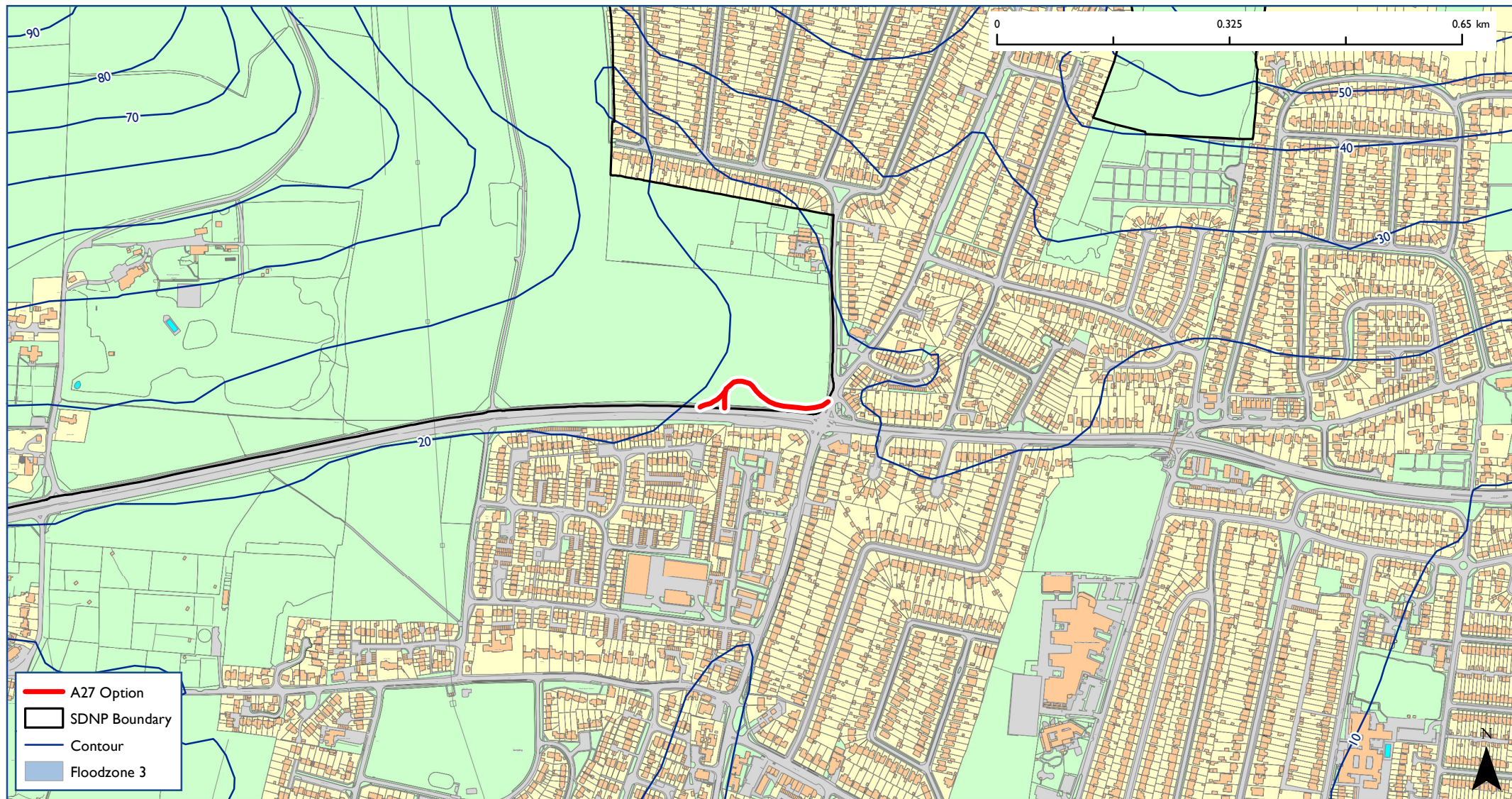


# Worthing A27 Route Options - Landscape Context Biodiversity

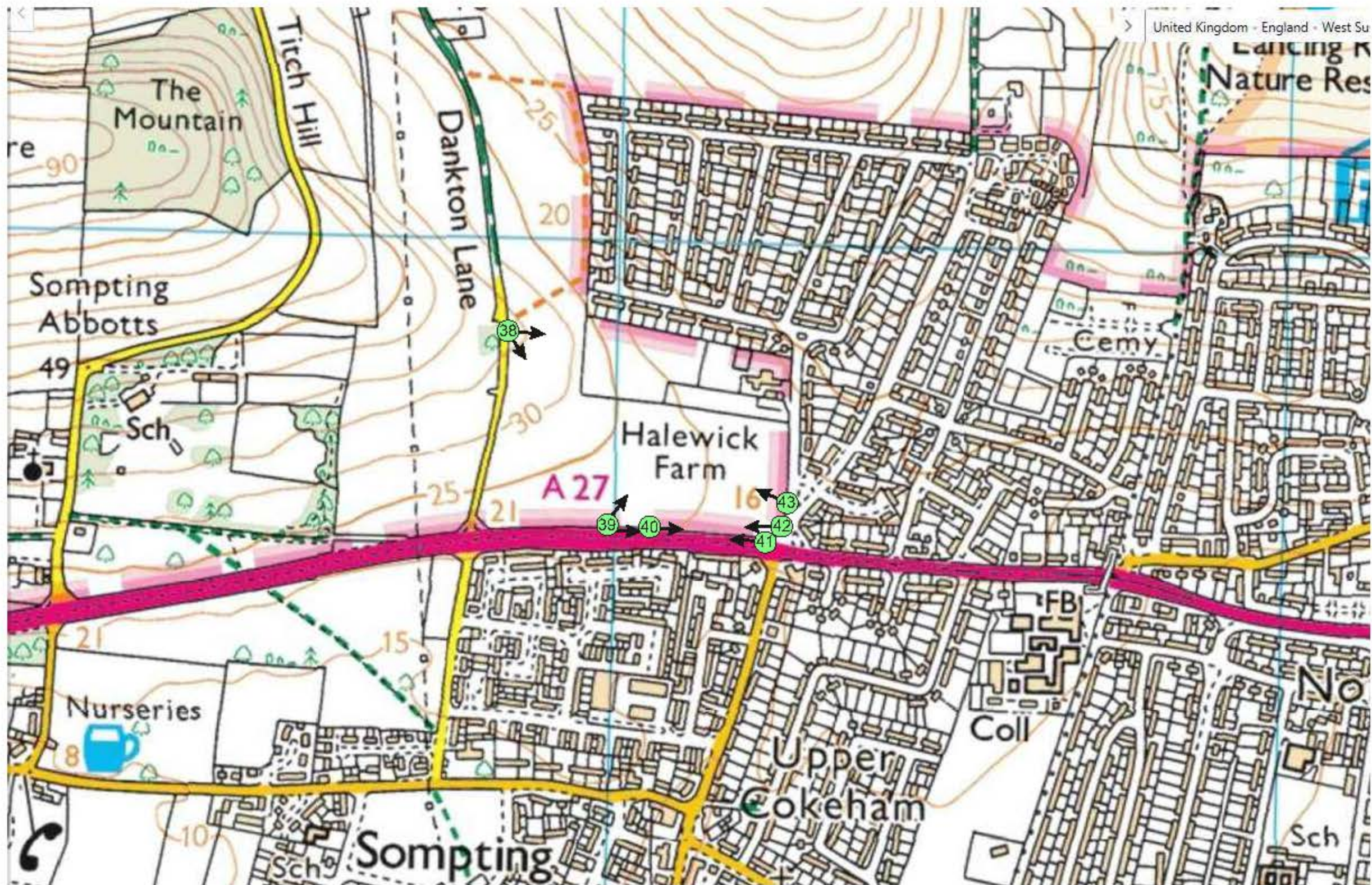




# Worthing A27 Route Options - Landscape Context Topography & Flood Zone







project:  
Consultation response to  
proposed A27 improvements

1837 APPENDIX V  
Figure 19

drawing title:  
Receptor Viewpoints  
(Group 9)

date:  
March 2017

Key

 Busticle Lane Junction

terrafirma  
LANDSCAPE ARCHITECTS

Cedar Court, 5 College Street, Peterfield, Hants GU8 1AE  
Tel: +44 (0)1730 262040 contact@terrafirma-consultancy.com



## Appendix XX (1)

Potential effects of the proposed A27 Worthing section, Busticle Lane junction re-alignment, on the overall character of the surrounding landscape and the visual experience from within that landscape.

Receptor	Key baseline components relating to the SDNP	Relative value	+	Sensitivity Susceptibility to specific landscape / visual change (inc. relationship to SDNPA Statutory Purposes)	=	Sensitivity	Magnitude of change	Significance of effects
<b>SDILCA A3</b> (Arun to Adur Open Downs)	<p><i>Key components (landscape):-</i></p> <ul style="list-style-type: none"> <li>Irregular fields of arable and pasture</li> <li>Open (though perhaps not as per the 'vast / large-scale fields described by SDILCA)</li> <li>Occasional scrub and woodland on steeper slopes and beech clumps on hill tops (visible from near the Busticle Lane junction)</li> </ul> <p><i>Key components of this LCA not applicable to the landscape setting of the proposed Busticle Lane junction re-alignment:-</i></p> <ul style="list-style-type: none"> <li>Deeply secluded / remote</li> <li>Good pubic access</li> <li>Large number of prehistoric and later earthworks</li> <li>Rolling upland</li> <li>Deep, narrow, rounded coombes (hidden dry valleys)</li> <li>Unimproved chalk grassland which support nationally scarce plant species</li> <li>Dynamic landscape, with considerable seasonal variation</li> </ul>	<ul style="list-style-type: none"> <li>National Park designation.</li> <li>Acknowledged positive character and quality is reduced through alteration / degradation of character / features.</li> </ul> <p>= Moderate value</p>	+	<ul style="list-style-type: none"> <li>The Busticle Lane junction re-alignment would have direct, physical implications for SDILCA A3 (with the highway constructed through an agricultural field which is part of the LCA).</li> <li>It would to some extent compromise the nature of the landscape's key component as an open fieldscape.</li> <li>The SDNPA's ability to fulfil its statutory purposes is unlikely to be compromised, as the compromised key components are already compromised by the presence of the existing adjacent A27, and as-such offer limited context to the SDNP which could be regarded as relevant to its understanding. As-such loss of this landscape to the Busticle Lane junction re-alignment is unlikely to limit opportunities to 'promote the understanding and enjoyment of the special qualities of the SDNP'</li> </ul> <p>= Moderate susceptibility to change</p>	=	MODERATE landscape sensitivity	<p>The proposed junction improvement would involve construction of a new section of road, approximately 190m in length, extending from Busticle Lane to a point on the A27, Upper Brighton Road, approximately 140m to the west of the existing junction. In addition, the improvement works would require widening of the existing A27 carriageway for an approximately 310m length to the west of the existing junction. A roadside footway would also be provided to the north of the widened road / new road, throughout.</p> <p>The new section of road, and additional width of the existing road would require land-take from the existing arable farmland to the north of the A27. This would be a fundamental change in the nature of this land-use from fieldscape, to highway.</p> <p>The existing thick, native field boundary hedgerow which runs alongside the 310m length of the highway improvement section would also be lost in order to facilitate construction of the new road / widened road.</p> <p>The information provided by Highways England to-date does not make clear what treatment is intended for the interface between the proposed highway land, and the remnant part of the arable fieldscape. Similarly, it is not clear what the intent is for the inside of the loop formed at the western end of the new road (between the new road and the A27 carriageway), or for the land which is currently taken-up with the existing Busticle Lane junction, which would become redundant as a consequence of creating the new junction 140m to the west. Without an appropriately designed landscape treatment, and landscape management arrangements, it is quite possible that these areas of land would become neglected and unsightly scrub growth.</p> <p>The proposed junction improvement would have direct implications for the LCA key components, of openness and fieldscape. However, the change would only be experienced locally.</p> <p>On balance = LOW ADVERSE magnitude of change</p>	<i>Landscape effects:-</i> MODERATE / MINOR ADVERSE
<b>Fieldwork Representative Receptor group 9a</b> Upper Brighton Road and Halewick Lane.	<p><i>Key components (landscape (Scenic quality / tranquillity)):-</i></p> <ul style="list-style-type: none"> <li>Settlement edge, with a mixture of built-form and arable fieldscape in the scene.</li> <li>Gently sloping topography</li> <li>The busy A27 trunk road is the most notable landscape component, with large volumes of traffic and infrastructure such as lighting and signage eroding the scenic quality.</li> <li>Tranquillity is fundamentally compromised by the movement and noise of traffic on the existing A27.</li> </ul>	<ul style="list-style-type: none"> <li>Edge of National Park designation.</li> <li>Acknowledged positive character and quality is reduced through alteration / degradation of character / features.</li> </ul>		<ul style="list-style-type: none"> <li>The Busticle Lane junction re-alignment is likely to have undue consequences for maintaining the baseline situation of the landscape receptor's scenic quality / tranquillity. However, it should be noted that the consequences of re-aligning the junction would mostly displace adverse negative landscape components which already exist, and any</li> </ul>		MODERATE landscape sensitivity	<p>The proposed junction improvement would involve construction works as described above. The potential changes to the identified key components of scenic quality / tranquillity are as follows:-</p> <ul style="list-style-type: none"> <li>Settlement edge, with a mixture of built-form and arable fieldscape in the scene. <ul style="list-style-type: none"> <li>Would still be a mixture of built-form and arable fieldscape, though the arable fieldscape would be reduced.</li> </ul> </li> <li>Gently sloping topography <ul style="list-style-type: none"> <li>The new road is likely to require some local manipulation of landform, though the vertical alignment level change would be relatively small (probably less than 1m).</li> </ul> </li> </ul>	<i>Landscape effects:-</i> MODERATE / MINOR ADVERSE

		= Moderate value	<p>increase in adverse negative landscape components may be relatively little.</p> <ul style="list-style-type: none"> <li>The Busticle Lane junction re-alignment is unlikely to have implications for SDNPA's ability to fulfil its statutory purposes in respect of this landscape receptor</li> </ul> <p>= Low susceptibility to change</p>		<ul style="list-style-type: none"> <li>The busy A27 trunk road is the most notable landscape component, with large volumes of traffic and infrastructure such as lighting and signage eroding the scenic quality. <ul style="list-style-type: none"> <li>This would not fundamentally change, though the road improvements would require an increase in infrastructure (i.e. lighting / signage), eroding the scenic quality further than at present.</li> </ul> </li> <li>Tranquillity is fundamentally compromised by the movement and noise of traffic on the existing A27. <ul style="list-style-type: none"> <li>This is not likely to notably change</li> </ul> </li> </ul> <p>On balance = LOW ADVERSE magnitude of change</p>	
	<p><i>Key components (visual (view composition)):-</i></p> <ul style="list-style-type: none"> <li>Foreground view of the metalled surface of the existing A27 highway, with vehicles travelling on it, and associated infrastructure such as street lighting and signage.</li> <li>Foreground view also of the open expanse of arable field, bound by native hedgerow.</li> <li>From some viewpoints, the existing A27 may be considered to be the most notable foreground visual component, as the eye is drawn to the complexity of that scene rather than the monotony of the arable field.</li> <li>Middle-distance views tend to be tend to be of built-form (residential streets at the settlement edge).</li> <li>Distant views are of local hillsides, with a horizon of hilltops. In some places the hillsides are covered with scrubby vegetation. In some places the horizon is wooded. Elsewhere open arable fields feature in the view composition.</li> </ul>	<ul style="list-style-type: none"> <li>Views at edge of the National Park</li> </ul> <p>= High value</p>	<p>Unlikely to be people engaged in outdoor recreation (i.e. walkers). Highly likely to be motorists on the A27, who are not likely to have high expectations of enjoying scenic amenity</p> <p>= Moderate susceptibility to change</p>	HIGH visual sensitivity	<p>The proposed junction improvement would involve construction works as described above. The potential changes to the identified key components of view composition are as follows:-</p> <ul style="list-style-type: none"> <li>Foreground view of the metalled surface of the existing A27 highway, with vehicles travelling on it, and associated infrastructure such as street lighting and signage. <ul style="list-style-type: none"> <li>This would not fundamentally change, though the presence of highway-related visual components would become more extensive within the view composition.</li> </ul> </li> <li>Foreground view also of the open expanse of arable field, bound by native hedgerow. <ul style="list-style-type: none"> <li>A large length of hedgerow would be removed. It is not clear if there is an intention to replace this hedgerow. A relatively large portion of the arable field would no longer exist as such, becoming instead highway within the view composition.</li> </ul> </li> <li>From some viewpoints, the existing A27 may be considered to be the most notable foreground visual component, as the eye is drawn to the complexity of that scene rather than the monotony of the arable field. <ul style="list-style-type: none"> <li>Unlikely to change. Highway may become more notable.</li> </ul> </li> <li>Middle-distance views of built-form <ul style="list-style-type: none"> <li>This is not likely to change</li> </ul> </li> <li>Distant views <ul style="list-style-type: none"> <li>Not likely to change</li> </ul> </li> </ul> <p>On balance = LOW ADVERSE magnitude of change</p>	<p><i>Visual effects:-</i></p> <p>MODERATE ADVERSE</p>
<p><b>Fieldwork Representative Receptor group 9b</b></p> <p>Dankton Lane</p>	<p><i>Key components (landscape (Scenic quality / tranquillity)):-</i></p> <ul style="list-style-type: none"> <li>Open fieldscape.</li> <li>Sense of elevation</li> <li>Settlement edge, with a mixture of built-form and arable fieldscape in the scene.</li> <li>Gently sloping topography</li> <li>The busy A27 trunk road is notable, with large volumes of traffic and infrastructure such as lighting and signage eroding the scenic quality.</li> <li>Tranquillity is compromised to some extent by the movement and noise of traffic on the nearby existing A27.</li> </ul>	<ul style="list-style-type: none"> <li>National Park designation.</li> <li>Acknowledged positive character and quality is reduced through alteration / degradation of character / features.</li> </ul> <p>= Moderate value</p>	<ul style="list-style-type: none"> <li>The Busticle Lane junction re-alignment is likely to have undue consequences for maintaining the baseline situation of the landscape receptor's scenic quality / tranquillity, although it should be noted that the consequences of re-aligning the junction would essentially displace adverse negative landscape components which already exist.</li> <li>The Busticle Lane junction re-alignment is unlikely to have implications for</li> </ul>	MODERATE landscape sensitivity	<p>The proposed junction improvement would involve construction works as described above. The potential changes to the identified key components of scenic quality / tranquillity are as follows:-</p> <ul style="list-style-type: none"> <li>Open fieldscape <ul style="list-style-type: none"> <li>Some of the open fieldscape would no longer exist as such, becoming instead highway. However, the remnant part of the open fieldscape would still be a dominant component of scenic quality, alongside that of the highway.</li> </ul> </li> <li>Sense of elevation <ul style="list-style-type: none"> <li>This would not change</li> </ul> </li> <li>Settlement edge, with a mixture of built-form and arable fieldscape in the scene. <ul style="list-style-type: none"> <li>Would still be a mixture of built-form and arable fieldscape, though the arable fieldscape would reduce a little.</li> </ul> </li> <li>Gently sloping topography</li> </ul>	<p><i>Landscape effects:-</i></p> <p>MODERATE / MINOR ADVERSE</p>

			SDNPA's ability to fulfil its statutory purposes in respect of this landscape receptor = Low susceptibility to change		<ul style="list-style-type: none"> <li>The new road is likely to require some local manipulation of landform, though the vertical alignment level change would be relatively small (probably less than 1m), and not likely to be perceptible from Dankton Lane.</li> <li>The busy A27 trunk road is the most notable landscape component, with large volumes of traffic and infrastructure such as lighting and signage eroding the scenic quality. <ul style="list-style-type: none"> <li>This would not fundamentally change, though the road improvements would require an increase in infrastructure (i.e. lighting / signage), eroding the scenic quality further than at present.</li> </ul> </li> <li>Tranquillity is fundamentally compromised by the movement and noise of traffic on the existing A27. <ul style="list-style-type: none"> <li>This is not likely to notably change</li> </ul> </li> </ul> <p>On balance = LOW ADVERSE magnitude of change</p>	
	<p><i>Key components (visual (view composition)):-</i></p> <ul style="list-style-type: none"> <li>Foreground view of an open fieldscape of rough grassland, which may be arable field left fallow. This space is essentially void of features.</li> <li>Middle-distance view most notably of built-form (residential streets at the settlement edge).</li> <li>The middle-distant view composition (immediately in-front of some of the built-form) also contains a small immature woodland block</li> <li>The middle-distant view composition (immediately in-front of some of the built-form) also contains the busy A27 highway, with a native hedgerow running alongside (and screening the metalled road-surface from view). Vehicles travelling on the road, and associated infrastructure such as street lighting and signage are notable.</li> <li>Distant view of settlement (including large industrial buildings) on the coastal plain, and beyond to the sea.</li> </ul>	<ul style="list-style-type: none"> <li>Views within the National Park = High value</li> </ul>	<p>In theory, visual receptors at Dankton Lane could be people engaged in outdoor recreation (walking / horse-riding / cycling), whose attention is likely to be focussed on the visual amenity. However, in reality Dankton Lane is difficult to access due to the existing A27 curtailing connections southwards to Sompting. Visual receptors who do manage to access Dankton Lane may have some expectations of visual amenity due to their location within SDNP, although this is likely to be reduced by their experience of the nearby A27 = Moderate susceptibility to change</p>	HIGH visual sensitivity	<p>The proposed junction improvement would involve construction works as described above. The potential changes to the identified key components of view composition are as follows:-</p> <ul style="list-style-type: none"> <li>Foreground view of an open fieldscape of rough grassland, essentially void of features. <ul style="list-style-type: none"> <li>Unlikely to notably change in the immediate foreground, though the far side of the foreground fieldscape (which could be considered as the foreground's interface with the middle-distance) would change as highway-related visual components would extend into this part of the view composition, in stark contrast to the existing fieldscape.</li> </ul> </li> <li>Middle-distance views of residential streets at the settlement edge, and (in part) a small immature woodland block <ul style="list-style-type: none"> <li>This would not change</li> </ul> </li> <li>Middle-distant view of the busy A27 highway, with a native hedgerow running alongside (and screening the metalled road-surface from view). Vehicles travelling on the road, and associated infrastructure such as street lighting and signage are notable. <ul style="list-style-type: none"> <li>This would not fundamentally change. However, a large section of hedgerow would be removed from the view composition, and as-such it is likely that the metalled road-surface would no-longer be screened from view. Similarly, the presence of infrastructure (i.e. lighting / signage), and vehicles themselves would increase within the view composition, as a consequence of removing the existing roadside hedgerow, but also as a consequence of creating the new section of road further towards the visual receptor.</li> </ul> </li> <li>Distant view of settlement on the coastal plain, and beyond to the sea. <ul style="list-style-type: none"> <li>This would not change</li> </ul> </li> </ul> <p>On balance = LOW ADVERSE magnitude of change</p>	<p><i>Visual effects:-</i> MODERATE ADVERSE</p>