

## **8 LANDSCAPE, TOWNSCAPE AND VISUAL EFFECTS**

### **8.1 Introduction**

8.1.1 This chapter provides a description and evaluation of the existing landscape and townscape resources and visual receptors potentially affected by the Scheme and impacts on them that would arise during the construction and operation of the bypass, taking into account the mitigation measures that have been designed to reduce the potential adverse impacts.

### **8.2 Methodology**

8.2.1 Landscape, townscape and visual assessments are separate, although linked, procedures. The assessment of the former is concerned with effects on an environmental resource, i.e. the landscape or townscape. Visual effects are assessed as one of the interrelated impacts on people.

8.2.2 The assessments follow guidelines in the Design Manual for Roads and Bridges, Volume 11, Section 3, Part 5 (1993 et seq.) and the appraisal methodologies given in Transport Analysis Guidance (TAG) Units 3.3.7 and 3.3.8 (which do not deal with visual assessment). In addition the 'Guidelines for Landscape & Visual Impact Assessment' published by The Landscape Institute and the Institute of Environmental Management & Assessment have been consulted for current definitions. The landscape character assessment has drawn on the guidance provided in the Countryside Agency's Landscape Character Assessment: Guidance for England and Scotland (2002). The only departure from the TAG methodology has been to consider substitutability of landscape features in terms of Year 15 instead of Year 100, as this conforms to the DMRB assessment timescale.

#### **Scope of Assessment**

8.2.3 The scope of this chapter is the landscape, townscape and visual assessment of the Scheme, in accordance with the methodologies stated above, within the Study Area described below. Landscape and visual impacts are considered both in terms of day-time and night-time effects. There are no predicted 'offsite effects' on the landscape, for example, arising from changed drainage regimes. The findings of the assessment process have informed the mitigation design.

8.2.4 Landscape and visual effects are assessed by comparing, at three stages, the predicted effects of the scheme with the situation if the scheme were not constructed:

- during construction (assessed as a 'snap-shot' at the stage of greatest disruption to any particular landscape, townscape or view during the contract period, assuming that this occurs in winter)
- during the operational stage immediately following completion of the works (Year 1) in winter
- 15 years after completion of construction, when planting would be established (Year 15), in winter

#### **Study Area**

8.2.5 The Study Area for the majority of the landscape and visual assessment is the approximate outer 'visual envelope' of the Scheme (Figure 8.0). The 'Inner Study Area' (Figures 8.3 a-b), 8.7 (a-b), 8.12 and 8.13 (a-b)) is a 1.5-2.0km wide area centred on the Scheme. A narrower corridor of study is used for affected vegetation on Figure 8.11 (a-b) and the Listed Buildings and Structures on Figure 8.12 (a-d).

### **Desk Studies, Surveys and Consultations**

8.2.6 The assessment has entailed desk studies and fieldwork, described in Volume 2. Landscape Officers of Devon County Council, Teignbridge District Council and Torbay Council have been consulted and Public Consultations were undertaken in February and March 2002.

### **Significance Criteria**

8.2.7 The levels of landscape and visual effects will be influenced by the following:

- the *sensitivity* of the receptor (the landscape or person experiencing the change)
- the *magnitude* of change that will occur or be experienced.

8.2.8 Effects can be beneficial or adverse. Beneficial landscape effects may arise in the long term, for example, if the level of tree cover is increased or the landscape becomes more varied, but in the short term the landscape and visual effects of any proposed development are more likely to be adverse, until planting grows and becomes more effective.

8.2.9 The methodologies for evaluating the baseline sensitivity of landscape, townscape and visual receptors and the magnitude of predicted changes are described more fully in Volume 2.

### **Landscape and Townscape Baseline Evaluation**

8.2.10 The sensitivity of a landscape or townscape to change depends on its quality (or value) and capacity.

8.2.11 The following definitions of landscape quality are the 5-point scale given in the DMRB methodology:

- 1 - Highest Quality
- 2 - Very Attractive
- 3 - Good
- 4 - Ordinary
- 5 - Poor

8.2.12 The capacity of a landscape or townscape to accept change of the type and scale proposed is based on its vulnerability to degradation through the introduction of new features or the loss of existing features. The capacity of a townscape depends on its scale, layout, density, mix of uses, cultural value and human interactions.

8.2.13 Quality and capacity are not necessarily linked. Capacity to accept a new highway scheme has been assessed on a three-point scale, as follows:

- 'Greatest'
- 'Medium'
- 'Least'

### **Landscape and Townscape Effects Assessment**

8.2.14 The terminology used for the overall assessment of landscape and townscape effects is based upon a standard seven-point scale taken from TAG Unit 3.3.7, Table 2 and TAG Unit 3.3.8, Table 1, which are reproduced in Volume 2. The scale is:

- Large beneficial
- Moderate beneficial

- Slight beneficial
- Neutral
- Slight adverse
- Moderate adverse
- Large adverse

### **Visual Baseline Assessment – Sensitivity of Visual Receptors**

8.2.15 The sensitivity of people to changes in the view is deemed to vary according to their activities and relationship to the place. Three categories of sensitivity are assumed:

- High – residents and users of public rights of way, i.e. walkers, cyclists and riders whose recreation is linked directly to enjoyment of rural views. Both of these groups are exposed to the view for a considerable length of time.
- Moderate – tourists using roads or railways, whose views are transient, and visitors using commercial recreation facilities such as amusement parks.
- Low – people at their workplace, school, commuters and those engaged in formal sports such as ball games or racing.

### **Visual Effects Assessment**

8.2.16 The terminology used for the assessment of visual effects is taken from DMRB Volume 11, which gives three categories for describing either adverse or beneficial visual effects: 'Substantial', 'Moderate', 'Slight'. Together with the neutral effect category, 'No change', this comprises a 7-point scale. Beneficial effects may occur if, for example, heavy traffic flows are removed from a view. A fuller description of the levels of adverse effect is given in Volume 2.

8.2.17 The effects on the settings of Scheduled Monuments, Conservation Areas and Listed Buildings and Structures are also considered.

## **8.3 Baseline Conditions**

8.3.1 The Scheme follows the broad valley between Newton Abbot and Torquay, the centre of which is largely occupied by Kingskerswell. There are bands of pastoral open land in the valley floor, separating these settlements, and the Study Area also encompasses the rolling, mainly arable, high ground framing the valley to the west and east.

8.3.2 The locations of the photographs referred to below are shown on Figure 8.14 and the photographs follow Figure 8.14.

### **Landscape Elements**

#### Geology

8.3.3 The surface geology of the route corridor is extremely variable and is described in Chapter 10.0.

#### Landform and Drainage - see Figure 8.1

8.3.4 The floor of the broad valley running north-south between Newton Abbot and Edginswell slopes down gently northwards over a distance of about 5.5km. When the whole valley between Newton Abbot and Torquay is described in this Chapter it is referred to as the 'Kingskerswell valley'.

- 8.3.5 The Kingskerswell valley is occupied by two watercourses flowing northwards to the River Teign, at Newton Abbot. The Aller Brook rises in the Dacombe area and the Edginswell Stream joins the Aller Brook at Brookeador, Kingskerswell. Parts of the valley floor are floodplain storage areas (see Figures 11.1a and 11.1b).
- 8.3.6 The high points to the north-west are Wolborough Hill, Newton Abbot, and a hill by Decoy Country Park. South of this is a tributary valley to the south-west. South again, the ridgeline enclosing the setting of Kingskerswell is unbroken, but undulating and indented with side valleys.
- 8.3.7 A ridge encloses Newton Abbot to the east. To the south-east of the town is the tributary valley of Beer's Brook, which flows westwards from Coffinswell. The land then rises to Kerswell Hill before dropping steeply to the east-west upper tributary valley of the Aller Brook. The south-eastern end of the corridor is enclosed by Fluder Hill.

Land Use and Vegetation – see Figures 8.2, 8.3 and 8.11.

- 8.3.8 Newton Abbot is at the northern end of the Study Area and to the south lies a pastoral valley floodplain, framed by suburban and industrial development. To the west, the wooded valley flank forms part of the Decoy Country Park. The A380, the London-Penzance railway and 2 pylon lines run along the valley for almost a kilometre.
- 8.3.9 On the eastern valley flank, south of Aller Park estate, are gravel quarries. South of Aller, Kingskerswell occupies the valley floor and extends two-thirds of the way up the eastern valley side. West of Kingskerswell is an area of Common Land, clothed in deciduous woodland, on Kerswell Down.
- 8.3.10 The ridgelines enclosing the central section of the valley are largely under arable, with few hedgerow trees, but there are some copses on the higher ground. In the valley floor are smaller pastures, with well-treed hedges and tree-lined watercourses.
- 8.3.11 South of the Torbay Ring Road is the hamlet of Edginswell which has been absorbed into the suburbs of Torquay. (More detailed information on vegetation and habitat types is included in Chapter 9, Ecology and Nature Conservation).

#### **Landscape Features**

- 8.3.12 The principal hills enclosing Kingskerswell are distinctive local landmarks, as is the single mature oak on the hilltop north of Kerswell Common (Photograph 15).
- 8.3.13 Between Penn Inn and Aller and in old Kingskerswell, groups of Monterey Pines form local landmarks.

#### **Settlement and Townscape**

- 8.3.14 Newton Abbot expanded as a major railway town in the 19th Century, and in the 20<sup>th</sup> Century residential areas were built on the valley side to the east of the A380. To the north-west of the Penn Inn roundabout are large modern offices and industrial buildings and to the south-west, there is a supermarket, fast-food outlet and car park.
- 8.3.15 The original village of Kingskerswell, which has distinctively south Devon character, is tucked in a hollow at the foot of Kerswell Down. Kingskerswell expanded up the lower slopes of the eastern valley flank during the 20<sup>th</sup> Century. This part of the settlement has a suburban character, which lacks local distinctiveness.

### **Tranquillity and Lighting**

- 8.3.16 The main Kingskerswell valley completely lacks tranquillity, in the tributary valleys to the west of Kingskerswell there is slightly more tranquillity and the enclosed valleys to the east, around Coffinswell and Dacombe, enjoy the greatest degree of tranquillity.

### **Landscape History**

- 8.3.17 Information on the history of the landscape is presented in Volume 2 and in Volume 2, Chapter 7 Cultural Heritage. Figure 8.4 is an excerpt from the 1905 OS map of Kingskerswell, showing that orchards dominated the landscape at that time.

### **Future Landscape**

- 8.3.18 Planning policies restricting development in rural areas are likely to remain in place during the assessment timeframe and development on the Kingskerswell valley floor will be largely precluded by floodplain protection. Land allocations in the current Local Plans include employment sites to the east and south of the A380/Torbay Ring Road roundabout at Kerswell Gardens.

### **Cultural Landscape**

- 8.3.19 There are no known fine arts or cultural associations with the Kingskerswell area that would enhance the perceived importance of the landscape.

### **Landscape Character**

#### Published Landscape Character Assessments (Figure 8.5)

- 8.3.20 At the national level of assessment, in the Countryside Agency's (CA) 'Countryside Character Volume 8: South-west (1999), the Kingskerswell valley is used as part of the boundary line between the 'South Devon' character area (151) and the 'Devon Redlands' character area (148).
- 8.3.21 Devon County Council's 'The Devon Landscape' (2002) similarly perceives the valley as the transitional line between a Character Zone (or area) named 'Under Dartmoor' (Zone 28) to the west and 'Tourist Riviera' (Zone 25) to the east and south.
- 8.3.22 Teignbridge District Council have identified a broad Character Zone running along the coast from the west side of the Exe estuary to Paignton, the 'Redlands' (Zone 5), which is sub-divided into 7 sub-zones.
- 8.3.23 Sub-zone 5g, 'Kerswell Farmland', covers the Kingskerswell valley and land to the west, with its eastern boundary running along the crest of Kerswell Hill. Sub-zone 5f, 'Breccia Hills', covers the Coffinswell valley, which is on the fringe of the visual envelope for this study, and land to the east.
- 8.3.24 Explanatory excerpts from the Assessment documents listed above are quoted in Volume 2.

#### Local landscape Assessment

- 8.3.25 Figure 8.6 shows the boundaries of a landscape character analysis at a more local level, within the Study Area, for the purpose of this ES. At this level, Newton Abbot, Kingskerswell and Torbay and their immediate fringes can also be analysed as separate townscape character areas (see below). The Landscape Character Areas (LCA) are:

- LCA 1 - 'Kingskerswell valley'. A broader valley than most in the surrounding area, with a flatter floor. It is visually enclosed and although it retains some rural character, it is dominated by development and has a suburban/urban fringe character. This has been divided into three sub-zones:
- LCA 1A - 'Aller valley' (Photographs 1 - 4). The valley flanks are partly wooded but substantially developed, with housing estates, prominent industrial buildings and gravel workings. The Aller Brook is well-treed but the pylon lines running along the flood plain are additional detractors. The rural landscape is fragmented and inharmonious and there is no sense of tranquillity.
- LCA 1B - 'Kerswell valley' (Photographs 4 - 5). A valley with steep, high and largely open upper flanks and a topographically convoluted floor. Almost all of the floor and much of the eastern flank is occupied by residential development, but buildings are small-scale and there are few detractors. Parts of the western side of the old village, which nestles harmoniously into its rural setting, are well-treed. There is little sense of tranquillity.
- LCA 1C - 'Edginswell valley' (Photographs 6 - 8). A more open, rural valley, with a narrower floor, steep high flanks to the east and a more gently sloping, open western side. There is relatively little development, the railway and A380 are secluded in trees and the Torquay fringes are concealed from the lower valley, but there is little sense of tranquillity.
- LCA 2 - 'Western Farmland' (Photographs 4 - 6). This has a gentler, more rolling topography, a greater density of settlement and more quarrying activity, rail and power lines than the area east of Kingskerswell.
- LCA 3 - 'Breccia Hills' (Photographs 9 - 10). The area east of the Kingskerswell valley, which has a steeply folded landform, with strip lynchets and traditional buildings giving a sense of time-depth. The area has a secluded and remote atmosphere and a sense of tranquillity.

8.3.26 Figure 8.6 shows the boundaries of the following Townscape Character Areas (TCA):

- TCA A – Newton Abbot. This has been divided into four sub-zones:
- TCA A1 – Buckland/Milber (Photographs 1 - 3 & 12 - 13). A largely 20<sup>th</sup> Century residential area with no local character or sense of place.
- TCA A2 – Aller Brook corridor. An area of large scale, 20<sup>th</sup> Century commercial and industrial buildings with no local character or sense of place.
- TCA A3 – Forde/Wolborough (Photographs 1 & 11). A mature residential area of largely 19<sup>th</sup> Century houses and plentiful mature garden trees.
- TCA A4 – Keyberry Park (Photograph 1). A mixed residential/industrial area of mainly modest properties; 19<sup>th</sup> Century terraces, 20<sup>th</sup> Century bungalows and houses, a small industrial estate and large industrial laundry complex.
- TCA B – Kingskerswell. This has been divided into two sub-zones:
- TCA B1 – Old Kingskerswell (Photograph 5b). An attractive mix of two and three-storey, detached early stone buildings, larger 19<sup>th</sup> Century rendered houses and terraces, laid out over convoluted, steep terrain. Many large mature garden trees, an inconspicuous railway and some local Devonian character. Includes Conservation Area.

- TCA B2 – New Kingskerswell (Photographs 5a, 5b & 17 - 20). Mainly mid- and late-20<sup>th</sup> Century bungalows and houses, largely laid out around cul-de-sacs. No local character or sense of place.
- TCA C – Torquay fringe (Photograph 7). Largely late 20<sup>th</sup> Century residential area, on a cul-de-sac pattern on a gently sloping hillside. There are a few older buildings in the hamlet of Edginswell.

### **Landscape and Townscape Quality and Capacity**

#### Designations (Figure 8.7 a-b)

- 8.3.27 Planning designations from the Adopted Teignbridge Local Plan (ATLP - 1996), the Teignbridge Local Plan First Review, Initial Deposit Version (TLPFR - 2001) and the Torbay Local Plan Revised Deposit (TLP - 2000) are shown on Figures 8.7a and 8.7b.

#### Landscape Designations

- 8.3.28 The hills to the east of Kingskerswell and the section of the Edginswell valley between Kingskerswell and Torquay lie within an Area of Great Landscape Value (AGLV).
- 8.3.29 The Decoy Country Park, Newton Abbot, and Kerswell Common are designated as 'Sites of Local Amenity Importance' in the ATLP, but the TLPFR proposes the deletion of this designation.
- 8.3.30 Part of the Study Area is designated 'Open Land between Settlements' in the Teignbridge Local Plan. This policy is not related to landscape character or quality so is not considered further in this Chapter.

#### Conservation Areas

- 8.3.31 The Newton Abbot Conservation Area is 250m to the west of the Scheme. An extension to the Kingskerswell Conservation Area has been approved by committee but has not yet been formalised. The proposed extended boundary borders the Scheme, west of Foredown Farm. Listed Buildings and Structures within 0.5km of the Scheme that are within or bordering the visual envelope are shown on Figures 8.12 (a-d). The two Scheduled Monuments in the Study Area, Kingskerswell Manor ruins and Kerswell Down field system, are shown on Figure 8.7.

#### Ecological designations

- 8.3.32 Areas designated for their ecological value (Sites of Special Scientific Interest and County Wildlife Sites) can indicate the condition and quality of the landscape and are shown on Figures 8.7 (a-b).

#### Tree Preservation Orders

- 8.3.33 Trees protected by Tree Preservation Orders within a 1km corridor centred on the Scheme are plotted on Figures 8.7 (a-b).

#### Hedgerow Regulations

- 8.3.34 The majority of potentially affected hedgerows qualify as 'Important' on biodiversity and / or historic criteria under the Hedgerow Regulations (1997).

Other protected landscape features

8.3.35 The Public Rights of Way, Common Land and land owned by The Woodland Trust are shown on the Recreation plans, Figure 8.13 (a-b). Whilst these are not planning designations, they are covered by forms of legal protection.

Landscape and Townscape Quality (Figure 8.8)

8.3.36 Teignbridge District Council published a Consultation Draft 'Urban Fringe Study' in August 2003, which analysed the landscape setting of Kingskerswell. This has been consulted but it should be noted that the landscape baseline assessment for this road scheme, based on DMRB methodology, evaluates the landscape in a wider context than the local study. The Urban Fringe Study is concerned only with relative values of land around settlements in Teignbridge, principally in terms of setting priorities for settlement expansion.

8.3.37 **Table 8.0 Baseline Landscape Evaluation**

<b>Landscape Character Area (LCA)</b>	<b>Landscape Quality</b>	<b>Landscape Capacity</b> (in terms of highway development)
<b>1A</b> Aller Valley LCA	Poor Moderate level of trees in hedges and along stream but area degraded by multiple detractors; industrial estates, housing estates, quarries, A380, railway and pylon lines.	Greatest Level valley floor topography. Existing infrastructure corridor reduces landscape sensitivity.
<b>1B</b> Kerswell Valley LCA	Ordinary Majority of LCA dominated by residential development but framed by woodlands and upper flanks have strong landform character.	Medium Remaining undeveloped land comprises steep, open valley flanks that would require major earthworks at odds with landform, but LCA already compromised by modern housing estates.
<b>1C</b> Edginswell Valley LCA	Good Strong hedges bounding early field pattern, well-treed, slightly degraded by A380, railway and influence of modern development.	Medium Gentler slopes would require more modest earthworks to accommodate a road. Existing tree cover would offer some screening.
<b>2</b> Western Farmland LCA	Good Strong field pattern and extensive woodland but slightly degraded by quarries, pylons and some suburban housing.	Least Highway would probably require major earthworks at odds with landform and loss of woodland.
<b>3</b> Breccia Hills LCA	Very attractive Historic, enclosed, tranquil pastoral landscape with strong sense of place, largely secluded from 20 <sup>th</sup> C development.	Least Very steep valleys that would require major earthworks /structures at odds with landform, potential loss of historic cultural landscape features and loss of tranquillity.

8.3.38 **Table 8.1 Baseline Townscape Evaluation**

<b>Townscape Character Area (TCA)</b>	<b>Townscape Quality</b>	<b>Townscape Capacity</b> (in terms of highway development)
<b>A1</b> Buckland/ Milber TCA	Ordinary 20 <sup>th</sup> C residential estates, cul-de-sac patterns, no local character or cultural assets and few large trees within housing.	Medium Small-scale buildings, sloping site, moderate level of pedestrian activity.
<b>A2</b> Aller Brook TCA	Poor Large scale, mainly sheet-clad buildings and extensive car parking on rectilinear layout. No cultural assets.	Greatest Scale of buildings in keeping with highway and HGVs, little street life, open density.
<b>A3</b> Forde/ Wolborough TCA	Good 19 <sup>th</sup> C residential, with some local character and large trees and large Grade I building.	Least Medium scale buildings, complex layout on hilly site, cultural value, moderate pedestrian activity.
<b>A4</b> Keyberry TCA	Ordinary Mixed 19 <sup>th</sup> / 20 <sup>th</sup> C housing and industrial with no local character or cultural assets.	Medium Small-scale buildings, sloping site, moderate level of pedestrian activity.
<b>B1</b> Old Kingskerswell TCA	Very attractive Residential, mixed periods with some local character, Grade II* church and Scheduled ruins.	Least Small-scale buildings, complex layout on hilly site, cultural value, high level of pedestrian activity.
<b>B2</b> New Kingskerswell TCA	Ordinary 20 <sup>th</sup> C residential estates, cul-de-sac patterns, no local character or cultural assets and few large trees.	Medium Small-scale buildings, sloping site, moderate level of pedestrian activity.
<b>C</b> Torquay fringe TCA	Ordinary 20 <sup>th</sup> C residential estates, cul-de-sac patterns, no local character or cultural assets and few large trees.	Medium Small-scale buildings, sloping site, moderate level of pedestrian activity.

### Visual Baseline

8.3.39 Potential receptors are all located in the 'visual envelope' shown on Figure 8.0, which is based on the predicted visibility of the Scheme. North of Aller junction, this largely corresponds to the visual envelope of the existing A380. Within Kingskerswell, the visual envelope of the existing A380 is virtually restricted to the properties fronting the road. South of Kingskerswell, the visual envelope of the existing A380 is limited on the eastern side to the adjacent hillside and properties, and to the west by roadside trees and hedgerows. A summary is given below of those receptors with views of the existing A380 and the existing views of those with potential views of the off-line section of the Scheme. From all of the viewpoints within the visual envelope, which are described below, the street lighting of Newton Abbot, Kingskerswell and Torquay is prominent and intrusive at night. The night-glow effect of the many orange luminaires affects a wider area.

8.3.40 Views of the Scheme corridor from side roads are largely blocked by high hedges enclosing the lanes, except at gateways.

- 8.3.41 There are glimpsed views of the A380 from the railway at present, in the Aller area and south of Kingskerswell. The Scheme corridor is intermittently visible to the west, but partially screened by trackside trees.
- Views from properties (for locations see Figure 8.12 (a-d) and Figure 8.0 for outlying properties)
- 8.3.42 A list of the properties within 2km of the Scheme for which visual effects are predicted is given in Volume 2, Appendix 8.1.
- 8.3.43 The existing A380 north of Penn Inn is screened by tree planting on its embankments. There are views over the Penn Inn roundabout (Photograph 11) from residences to the east. From the west, most views from nearby residential properties are partially screened by vegetation or buildings.
- 8.3.44 Views of the A380 from Milber and Aller Park are limited to houses facing onto Torquay Road (Photographs 12 and 13) which have views over the traffic to trees or the valley beyond.
- 8.3.45 From Wolborough Hill, Newton Abbot, many residents have panoramic views looking over Penn Inn or down the Aller valley (Photograph 1). Residents on the western edge of the Aller Brook floodplain have views to the A380 (Photograph 3), but traffic on it is largely screened by roadside trees.
- 8.3.46 A cluster of houses on the hillside above Coffinswell have a view down to the Aller Bridge area of the Kingskerswell valley, framed by the Beer's Brook side valley.
- 8.3.47 Many properties in Kingskerswell offer views over the Scheme, but some central areas are in visual shadow, due to a fold in the valley floor. The views fall into three groups; near, open views from properties on lower ground near the western edge of Kingskerswell (Photographs 14-16), glimpsed views between vegetation and other buildings from the majority of residences in the middle ground (Photographs 18-21), and panoramic views over the western valley sides from elevated properties on the eastern fringes of Kingskerswell (Photographs 17 & 22), at distances of 0.75 – 1.4km.
- 8.3.48 Residents along Edginswell Lane and some lanes to the west have long views down the Edginswell valley, although some are screened by hedges and trees.
- 8.3.49 Many residents on the Edginswell fringe of Torquay have views over the Torbay Ring Road and the existing A380 junction at Kerswell Gardens.
- Scheduled Monuments and Listed Buildings and Structures
- 8.3.50 The Scheduled Monuments and Listed buildings and structures within or bordering the approximate visual envelope of the Scheme are shown on Figures 8.7 and 8.12 (a-d) and noted in Volume 2, Appendix 8.2. They are all Grade II except Forde House (Grade I) and St Mary's Church, Kingskerswell (Grade II\*). The effects of the Scheme on views from these buildings are included within the Visual Impact Schedules in Volume 2, Appendix 8.1.
- 8.3.51 There is little intervisibility between the A380 and the Conservation Areas at Forde Park and Wolborough in Newton Abbot.
- 8.3.52 The Kingskerswell Conservation Area is secluded from the A380. Its setting (and those of several Listed buildings within it) is dominated by the hillside to the west and the Kerswell Common woodland.
- Public Rights of Way and Recreation Areas (Figure 8.13 (a-b))

- 8.3.53 In Sandringham Park, Buckland, Newton Abbot there are views down the valley through trees to Penn Inn from the northern corner of the playing fields, but most of the views are contained by the steep embankment and mounds along the existing A380. There are no views from Forde Park or the Decoy Country Park of the section of existing A380 where on-line dualling is proposed or of the route of the Scheme to the south.
- 8.3.54 Footpath 37, in Newton Abbot, follows the bottom of the densely planted embankment to the existing A380 and users have no views of the road except for the last 150m approaching the Penn Inn roundabout. From the cycleway which runs on the western side of the Aller Brook, intermittent views may be obtained of the Penn Inn roundabout over the southernmost 100m. Footpath 45 runs through the Sainsbury's car park. There are no views of the route corridor from Footpath 40 within Milber Wood or Footpaths 2 and 4 within Decoy Country Park woodland. Views of the A380 below Milber and Aller Park may be obtained from Footpath 1, between the Priory and Decoy Industrial Estates.
- 8.5.55 Horse riders may obtain views of the valley from a short section of Bridleway 8. There are no views out from Bridleway 18. Views from Church Way, just to the south, are limited to a view over the valley from the top and occasional glimpses of the far valley side of the Edginswell Valley. Views from the paths within the wooded Kerswell Common are very restricted, but from the permissive path to the Common from Churchway Lane there are views across the Greenhill Road side valley to Yon Street. Existing views from public rights of way and recreation areas are summarised in Volume 2, Appendices 8.3 and 8.4.

## **8.4 Mitigation Strategy** (see Figure 8.9)

### Introduction

- 8.4.1 The principal objective is to integrate the Scheme into the local landscape in order to minimise adverse landscape and visual impacts. The principles underlying the mitigation design are described in Volume 2.
- 8.4.2 The Scheme has been designed to incorporate the vast majority of excavated material within the highway and landscape mitigation earthworks.
- 8.4.3 New planting will largely comprise locally native species or long-established species. Areas of grassland on the cutting slopes will be seeded to create species-rich swards (see Chapter 9.0, Biodiversity).
- 8.4.4 Lighting would be the minimum commensurate with road safety, being restricted to the Penn Inn roundabout to Aller section, the Aller junction and the Torbay Ring Road junction. New lights would use 'white lighting' and 'cut-off' luminaires to reduce 'sky-glow'.

### Detailed Proposals

- 8.4.5 In the following description the term 'bund' is used for an artificial, linear mound. 'False cutting' means the use of bunds alongside the carriageway, which creates a sense of being in a cutting for motorists using the road, although the actual carriageway may be at the same level as the surrounding land or on an embankment. In the following text the height given for false cuttings or bunds is the difference in level between the top of the landform and the highest point of both carriageways of the proposed A380 at the same location (i.e at the same chainage). Cars, including 4 x 4s, are up to approximately 2m high and HGVs can be up to 4m high.

North of Penn Inn Flyover, Newton Abbot – Chainage 210 to Chainage 800

- 8.4.6 The established trees on the embankments to the north would be largely retained. These are not yet mature and will increasingly screen the flyover structure in future.
- Penn Inn Flyover – Chainage 800 to Chainage 1300
- 8.4.7 It would be possible to retain some of the trees within the roundabout and additional trees would be planted around the edges, to help to mask the structure. Aller Brake Road / St Marychurch Road junction, Newton Abbot (Off-line to the east of Penn Inn).
- 8.4.8 The veteran Oak by the proposed Aller Brake Road / St Marychurch Road junction will be retained.
- Torquay Road, Newton Abbot – Chainage 1300 to Chainage 2150.
- 8.4.9 There would be screen planting between the A380 and the side road, comprising evergreen shrubs and, where space permits, some trees.
- 8.4.10 At St Luke's Road and Aller Park Road, where the western end of residential gardens would be taken, a 1.2m high wall above the level of the gardens would help to screen traffic in views from the dwellings. Residents will be offered a hedge and trees.
- 8.4.11 To screen the retaining walls from the west, Alders would be planted in the valley floor to the west of the railway and on the approach embankment of the existing access bridge across the railway.
- Aller Junction – Chainage 2150 to Chainage 3170
- 8.4.12 Along the western side of the main carriageway, from Chainage 2310 to Chainage 2570, there will be no false cuttings, to avoid taking any additional areas of floodplain storage, but scrub will be planted on the upper embankments to provide a screen and the lower embankment slopes will be planted with woodland, which would blend into the existing wood around the Aller Quarries.
- 8.4.13 Along the eastern side of the main carriageway, where space permits, a 3m high false cutting would be formed. South of the junction underbridge there would be a 4m high false cutting between Chainage 2880 and Chainage 2960. Both landforms would have scrub and trees along their crests. Where there is no false cutting, scrub and trees would be planted on the upper embankment slopes, with woodland planting below. Woodland planting between the side roads off the Torquay Road roundabout and around the smaller junction roundabouts would help to mask their lighting.
- 8.4.14 Between the main carriageway and the Aller quarries, scattered trees in grass are proposed.
- 8.4.15 The attenuation pond to the north-west of the junction would be grassed.
- Cutting from Aller Junction to Maddacombe Road Bridge – Chainage 3150 to 4030
- 8.4.16 The overall strategy between Aller Junction and the Maddacombe Road overbridge is to use landform to screen traffic and to link the existing woodland at Kerswell Down and copses on the hillside to the north with new woodland along the Scheme.
- 8.4.17 This section would be in cutting, much of which would be over 4m deep. Where shallower, false cuttings would be formed on the eastern side of the Scheme, to help to screen traffic from Kingskerswell. The outer faces of these false cuttings would have slopes similar to the surrounding landforms and be returned to pasture. As the woodland planting on both sides of the cutting matures, it would merge together in views from the east and create the impression that the valley side is wooded. Some

severed fields would also be infilled with woodland, to break up the parallel, linear shape of the cutting.

Maddacombe Road Bridge and its Setting – Chainage 4030 to Chainage 4040

- 8.4.18 The overbridge abutments would be masked by tree and shrub planting, which would also help to close the 'notch' of the cutting that may appear in some viewpoints to the south.

Kerswell Common Cutting – Chainage 4040 to Chainage 4170

- 8.4.19 Because this cutting is through limestone it has been designed with steeper sides, which would be exposed rock, in order to minimize the cutting width and hence loss of the garden at Rock House and woodland at Kerswell Down. The rock cutting would also provide a locally uncommon, calcareous habitat.

- 8.4.20 There would be trees along the cutting crests and its faces will become colonised by vegetation. A belt of trees along the eastern crest would enclose the garden at Rock House and mask the western cutting from Kingskerswell. A band of woodland along the western crest would recreate the existing landscape pattern and reduce visual impacts from residences on Whilborough Road.

- 8.4.21 Lost Common Land would be replaced with exchange land to the south-west, a new public right of way would be created within the Common and the visitor car park would be replaced in its present location but at a higher level, where it would be screened by a timber fence and trees and shrub planting.

Off-line Drainage Works in Kingskerswell

- 8.4.22 The proposed channel between Daccabridge Road and the Playing Fields would be lined with stone and bounded by railings.

Greenhill Road Embankment – Chainage 4140 to Chainage 4420

- 8.4.23 The carriageway would be on embankment up to 2.5m high, so false cuttings are proposed on both sides to help to screen traffic in views from properties and from Churchway Lane. The height of the bunds would be a minimum of 1.4m above the road. Higher bunds have not been proposed because they would be over 5m above existing ground level and would appear out-of-scale within this small valley. Large shrubs and trees will be planted along the upper part of the bunds, to screen larger vehicles from the nearest properties. The outer slopes would be planted with trees to provide screening from higher ground.

Yon Street Bridge and its Setting – Chainage 4220 to Chainage 4550

- 8.4.24 A hedge would be planted along the United Reformed Church car park boundary, to reinstate the existing setting of the building. To the south-west, a broad band of trees and shrubs would provide screening to Huxnor Road properties. Woodland planting on the cutting and planting around the south side of the bridge would soften the overbridge abutments.

Edginswell Lane Cutting – Chainage 4550 to Chainage 5040

- 8.4.25 Parts of this cutting are sufficiently deep to conceal traffic in views from properties to the east that are at a similar level or below it, and false cuttings (a minimum of 3.2m higher than the carriageway) would be formed on the eastern side where it is less than 4m deep. The outer faces would be largely returned to pasture. Shrubs and trees would be planted near the cutting crests, to screen views down into it from properties at higher levels.

8.4.26 Scrub and woodland planting along the western cutting faces would screen views from properties along Edginswell Lane and higher ground to the west. At the northern end of Edginswell Lane, a triangle of land between the cutting and the lane would be filled with a gently raised landform, covered in woodland, to block views down into the cutting from the properties set above the lane.

Edginswell Valley At-grade – Chainage 5040 to Chainage 5400

8.4.27 This section of the Scheme is near existing ground level and would be enclosed with 2.2m high false cuttings, planted with dense scrub and trees, on both sides of the road to Chainage 5300. These would initially screen cars and the lower part of HGVs, whilst minimising loss of wetland habitat, and in time most traffic would be concealed from properties by the planting. South of Chainage 5300 there would be a false cutting on the western side of the road only, because the eastern side would be largely concealed from residential views and screened by existing trees.

8.4.28 The drainage attenuation pond east of the road would be returned to pasture.

Edginswell Embankment – Chainage 5400 to Chainage 5920

8.4.29 To the east of the Scheme there are no sensitive visual receptors. The embankment would be planted with trees and scrub.

8.4.30 To the west of the Scheme the 2.2m high false cutting would be extended to Chainage 5610. South of this point the few potential views from the homes to the west and are largely oblique and / or screened by existing vegetation. The existing screening would be reinforced with dense scrub planting along the upper embankment and woodland would be planted on the lower slopes.

Torbay Ring Road

8.4.31 The existing Ring Road cuttings have species-rich grassland, so re-cut slopes would be restored to grassland.

Summary

8.4.32 The combined mitigation works include the following total proposed plantings:

- km of new and translocated hedges
- 15.43 ha of new woodland, woodland edge planting and scrub
- over 100 new specimen trees

8.4.33 New hedges would include Blackthorn, Dogrose, Guelder Rose, Hawthorn, Hazel, Holly and Field Maple. Hedgerow trees would be mainly Oak, with some Alder in the valley floors.

#### **Mitigation During Construction**

8.4.34 Little can be done to mitigate the temporary landscape and visual construction effects, but as much existing vegetation would be retained as possible to optimise screening.

8.4.35 It is anticipated that the only temporary soil stores would be topsoil however to fully utilise site won excavated materials double handling, with associated stockpiles, may be required.

### **Maintenance and Monitoring of Mitigation Measures**

- 8.4.36 For the first five years after planting any dead plants would be replaced. Woodland would be thinned when appropriate to develop a similar structure to the existing local woodlands. Grasslands would be managed to encourage species diversity.

### **8.5 Impacts During the Construction Phase**

- 8.5.1 'Construction impacts' are those temporary and permanent effects that occur between the start and completion of the works. They principally relate to loss of landscape features, effects on local character and the visual impact of construction activities. The principal construction activities are summarised in Chapter 4.

#### Sources of Impact

- 8.5.2 During the construction phase, landscape and visual impacts would arise by virtue of:

- site clearance, including loss of woody vegetation
- stripping and stockpiling of soils
- creation of cuttings and embankments
- presence of a construction compound, assumed at Aller
- presence of temporary haul roads, temporary road diversions and small construction sites adjacent to bridge/culvert sites
- activities of construction, for example, the passage of heavy construction plant, possible use of cranes and possible lighting

#### **Loss of Existing Features**

- 8.5.3 Site clearance operations would result in the permanent loss of the following features:

- Approximately 5.5km of field hedges and 0.44km of garden hedges.
- Approximately 70 mature individual trees
- Approximately 1 ha. of woodland adjacent to the Kerswell Down car park

- 8.5.4 No trees protected by Tree Preservation Orders would be affected.

#### **Impacts on Landscape Character and Townscape Character**

##### LCA 1A - Aller Valley

- 8.5.5 There would be on-line widening alongside the railway line and an embankment carrying the A380 across the valley. The Aller Junction would occupy approximately 15.5ha.
- 8.5.6 All trees and hedges between the A380 and the railway would be removed and a retaining wall, up to 2.6m high with a 1.15m parapet wall (totalling 3.65m) would be built. There would be a masonry-faced retaining wall up to 1.6m high, plus a 1.15m parapet wall (total 2.75m) between the A380 and the bus route/access road to the east.
- 8.5.7 The bus route/access road would encroach up to 10m into 22 private gardens on St Luke's Road and Aller Park Road. In some places another retaining wall would support gardens of properties on these roads. The copings of these walls would be up to 7.5m above the A380.
- 8.5.8 The removal of A380 roadside vegetation would expose more traffic and houses to the valley and, with the three tiers of retaining walls, would further urbanise this LCA.

- 8.5.9 The main embankment across the valley floor would be approximately 550m long and up to 13.5m high. The Aller junction would include two lit roundabouts set 6m below the main carriageway and there would be a larger, lit roundabout on Torquay Road. One of its side roads would also cross the railway at 8m above existing ground level.
- 8.5.10 During construction there would be permanent loss of hedgerows and trees (including trees along the Aller Brook and an isolated oak), substantial changes to the valley floor landform and culverting of 310m of the Aller Brook. Some trees would also be lost on the outer fringe of the woodland around Aller Quarry, but the screen would be retained (see Figure 8.11 a-d)).
- 8.5.11 Temporary construction impacts may include a contractor's compound and soil stockpiles in fields to the north of the junction, which could be in use for the whole duration of scheme construction.
- 8.5.12 There could be temporary impacts due to night working. The lit area is unlikely to extend beyond the area that would be permanently lit as a result of the side road roundabouts.
- 8.5.13 This LCA is influenced by modern development and the associated activity of road and rail traffic, which diminish its sensitivity to development, but the scale of development and intrusion in the valley would be such that the overall effect on this LCA during construction is assessed as **Moderate adverse**.

#### LCA 1B - Kerswell Valley

- 8.5.14 The principal features of the Scheme would be a 1km long cutting, the Greenhill Road embankment and the proposed Maddacombe Road and Yon Street overbridges.
- 8.5.15 Between the Aller junction and Yannon Lane the cutting would reach to 15m deep on the uphill side. Between Yannon Lane and Maddacombe Road it would be a maximum of 12m deep on the lower side and 28m deep on the higher, western side. Through Kerswell Down it would be up to 7m deep on the eastern side and 18m deep on the upslope side.
- 8.5.16 The carriageway crossing the Churchway Lane valley would be up to 2.5m above existing ground level, with false cuttings a further 2m above this.
- 8.5.17 During construction, permanent loss of vegetation would include severed hedges, some with hedgerow trees, the landmark Oak on Maddacombe Hill and approximately 1ha of woodland on Kerswell Down (see Figure 8.11c).
- 8.5.18 Temporary impacts would include movement of vehicles along the hillside and the introduction of large vehicles into the secluded Churchway Lane valley. The construction of the bridges would intrude on semi-rural lanes.
- 8.5.19 The baseline study established that existing development is better integrated in this LCA and parts of the western side are also more tranquil and more sensitive to change. The cutting would be out of scale and at odds with the landscape and, during construction, could not be mitigated, so the impact on this LCA would be **Moderate adverse**.

#### LCA 1C - Edginswell Valley

- 8.5.20 At the northern end, the Scheme would descend in sidelong cutting, following the grain of the landform, to the valley floor where it would run at ground level over approximately 400m. It would rise to join the Torbay Ring Road on a 12m high embankment, aligned with the valley landform.

8.5.21 During construction there would be disruption of the field pattern, permanent loss of woody vegetation (including well-treed hedges) and changes to the landform.

8.5.22 Temporary impacts would be as noted above.

8.5.23 The baseline study established that this is the most rural, tranquil and highly valued of the directly affected LCAs, but its landform has a somewhat greater capacity than the Kerswell Valley LCA. The small-scale field pattern would be severed and the cutting, although following the grain of the valley, would be at odds with the landform. During construction this could not be mitigated, so the impact on this LCA would be **Moderate adverse**.

Impacts on the remaining LCA's

8.5.24 The Western Farmlands and the Breccia Hills would not be directly affected so impacts on them would be **Neutral**.

#### **Impacts on Townscape Character Areas**

TCA A1 – Buckland/Milber

8.5.25 The effects of construction activities at the edge of the area would be slight and there would be no greater impact on human interaction than at present, either during construction or operation. The Penn Inn flyover would be on its fringe and also at the foot of the hillside, which would diminish its apparent scale. The effect on this TCA is assessed as **Slight adverse**.

TCA A2 – Aller Brook

8.5.26 The Penn Inn Flyover would dominate the southern end of this TCA, but would be almost matched in scale by the Sainsbury's store. There would be no greater impact on human interaction than at present, either during construction or operation. The effect on this TCA is assessed as **Slight adverse**.

8.5.27 There would be no impacts on the other Newton Abbot TCAs, so these are assessed as **Neutral**.

TCA B1 – Old Kingskerswell

8.5.28 There would be direct effects during the construction phase due to the construction of a drainage channel but this would be in a secluded location. Traffic management could affect pedestrians, but may beneficially slow traffic speeds. Overall townscape effects during construction are assessed as **Slight Adverse**. Effects on the setting of this TCA are described under Visual Impacts.

TCA B2 – New Kingskerswell and TCA 3 Torquay Fringe

8.5.29 There would be no effects on these TCAs so the assessment for these is **Neutral**.

#### **Visual Impacts During the Construction Phase**

8.5.30 The effect on the views of travellers on the A380 and railway passengers is assessed as **Substantial adverse**. The effects on side roads, except those directly affected by the works, would be **Slight adverse** unless the hedges are clipped lower than at present.

Effects on Properties

8.5.31 The properties predicted to be affected by visual impacts during construction are identified on Figure 8.12 (a-d) and scheduled in Volume 2, Appendix 8.1. Properties are generally only included in the schedule if there is some predicted change to the view. However, a small number with no predicted views are included because they might be expected from their position on Figure 8.12 to be affected. These are recorded as 'No change' during the construction period and no prediction is scheduled thereafter. From properties at 2-3km distance, the works would be a small element in the view, so the change is considered to be negligible and these have not been included in the assessment table.

8.5.32 The assessment is based on the anticipated impacts during the most disruptive period of the works for each receptor, on the assumption that this could occur during the winter months.

8.5.33 Adverse impacts are classified into four categories and the numbers of affected properties in each category are as follows:

- **Substantial adverse** - 245
- **Moderate adverse** - 174
- **Slight adverse** - 536
- **Beneficial** - none

Settings of Conservation Areas, Scheduled Monuments (SM) and Listed Buildings (Figures 8.7 (a-b), 8.12 (a-d) and Appendix 8.2 in Volume 2)

8.5.34 The settings of Conservation Areas in Newton Abbot would not be affected. The setting of the Kingskerswell Conservation Area would be affected to a **Substantial adverse** extent by visual impacts and loss of tranquillity, resulting from the excavation of the cutting to the west and construction of the Maddacombe Road overbridge. These works would temporarily have only a **Moderate adverse** effect on the setting of the Scheduled Manor ruins, due to their enclosing hedge. The overall effect on the Kerswell Down SM would be **Slight adverse**, because it is secluded in woodland.

8.5.35 The Listed Buildings and Structures in each 'effects on settings' category are as follows:

- **Substantial adverse** - 7
- **Moderate adverse** - none
- **Slight adverse** - 4
- **No change** - 2

Public Rights of Way and Recreation Areas

8.5.36 See Figures 8.13 (a-b) and Appendices 8.3 and 8.4.

## 8.6 Impacts Arising During the Operational Phase

8.6.1 The impacts assessed during the 'operational phase' assume that the Scheme, including mitigation works, is in place. This section is therefore concerned with the longer term impacts on landscape character and visual impacts arising from the presence of the Scheme and its associated traffic.

### Landscape effects

8.6.2 The effects of the permanent changes to landform features during the construction phase would apply to the operational phase, but the effects of loss of woody

vegetation features during construction would be compensated for, in time, by the proposed mitigation planting.

### Impacts on Landscape Character

#### LCA 1A - Aller Valley

- 8.6.3 The principal change would arise from the harder urban edge along the eastern side of the valley floor and the substantial new embankment and associated side road embankments across the valley at Aller junction. Illumination of the roundabouts would appear as an extension of the existing lighting at Kingskerswell. There would be little change in the level of tranquillity, due to the existing traffic flows.
- 8.6.4 In Year 1 the retaining walls and exposed traffic along the eastern valley side plus the new embankments with partially exposed traffic on them would be at odds with the local landscape, so the overall effect is assessed as **Moderate adverse**.
- 8.6.5 After 15 years, planting would partially mask the retaining walls and traffic. The woodland on the embankments would camouflage their underlying forms and dense scrub on the crests would minimise the effects of traffic. The wooded embankment would change the character of the valley, but would link with the woodland around the Aller quarries and the well-treed valley floor. Tranquillity would be little affected.
- 8.6.6 Landscape effects during the operational phase are considered to be **Moderate adverse** in Year 1, diminishing to **Slight adverse** in Year 15.

#### LCA 1B - Kerswell Valley

- 8.6.7 The principal impacts in Year 1 would remain the major cuttings and the introduction of traffic into the Churchway Lane area, which is currently relatively tranquil.
- 8.6.8 The cuttings would provide noise containment, no lighting is proposed over this section and headlights would be concealed within the cuttings, so the level of tranquillity would be only slightly affected.
- 8.6.9 The cuttings would substantially change landscape character, but because the outer faces of the false cuttings have been designed to merge with the adjacent hillsides, when grassed the apparent change would be reduced. However, the freshly-cut rock of the Kerswell Down cuttings and the elevated Kerswell Common car park would be prominent.
- 8.6.10 By Year 15, tree planting within and around the main cutting would be well established and would begin to 'read' as one wood, repairing the local landscape pattern. The Kerswell Down cutting would also have weathered and been colonised by vegetation. The tree planting would help absorb the new Maddacombe Road and Yon Street bridges into the landscape.
- 8.6.11 During the operational phase the effects on this LCA are considered to be **Moderate adverse** in Year 1. At Year 15, the effects are predicted to diminish to **Slight adverse**.

#### LCA 1C - Edginswell Valley

- 8.6.12 The most significant change to landscape character would be the severance of the field pattern and the embankment, but this would be linked to the existing Ring Road embankment and would be partly masked by existing Poplars.

8.6.13 By Year 15 the hedge planting would match the existing hedges and the embankment planting would blend with existing trees, so landscape character would be partially restored.

8.6.14 The effects on this LCA are considered to be **Moderate adverse** in Year 1. At Year 15 the effects are predicted to be **Slight adverse**.

Impacts on the remaining LCA's

The Western Farmlands and Breccia Hills would not be directly affected and the impacts would therefore be **Neutral**.

#### **Impacts on Townscape Character Areas**

TCA A1 – Buckland/Milber

8.6.15 The effect on this TCA would be **Slight adverse** in Year 1 and in Year 15, due to the Penn Inn Flyover.

TCA A2 – Aller Brook

8.6.16 The effect on this TCA would be **Slight adverse** in Year 1 and in Year 15, due to the Penn Inn Flyover.

8.6.17 There would be no impacts on the other Newton Abbot TCAs so effects on these are assessed as **Neutral**.

TCA B1 – Old Kingskerswell

The effect of the drainage channel alongside the railway on townscape character is assessed as **Neutral**. The anticipated reduction in through traffic would represent a **Slight Beneficial** effect on this TCA. The overall assessment is **Slight Beneficial** in Year 1 and in Year 15.

TCA B2 – New Kingskerswell

8.6.18 The reduction in through traffic, making pedestrian movement across the Kingskerswell easier, and the removal of most large-scale HGVs would represent a **Slight Beneficial** impact on this TCA throughout the operational phase.

TCA 3 Torquay Fringe

8.6.19 There would be no impacts so the effect is assessed as **Neutral**.

#### **Visual Impacts During the Operational Phase**

8.6.20 The effects on side roads, except those directly affected by the works, would be **Slight adverse** in Year 1 and **No change** in Year 15, unless the hedges are clipped lower than at present. The effect on the views of railway passengers is assessed as **Moderate adverse** in Year 1 and **Slight adverse** in Year 15, due to the residual effect of the Aller Junction tunnels.

Effects on properties (Figure 8.12 (a-d) and Appendix 8.1 in Volume 2)

8.6.21 The visual impacts during the operational phase are included in the schedule in Volume 2, Appendix 8.1. The assessment is based upon the likely impacts arising during the winter of the year after the Scheme is opened and in both the winter and summer 15 years later. Because the planting to screen traffic would be thick scrub, designed to provide a dense screen throughout the year, which would be at least 4m

high by Year 15, no significant difference between summer and winter views is predicted for almost all viewpoints in Year 15. The very few properties with a potentially thinner screen at Year 15 (e.g. Rock House, Kingskerswell) are highlighted in the Comments section of the Schedule.

- 8.6.22 The same four categories are used as for the constructional impact assessment, but the assessment of 'No change' during the Operational Phase means that the view would be different, but its general nature and quality would be unchanged from the present view. The numbers of affected properties in each category are as follows:

YEAR 1

- **Substantial adverse** - 183
- **Moderate adverse** - 165
- **Slight adverse** - 564
- **No change** - 18
- **Slight Beneficial** - 70

YEAR 15

- **Substantial adverse** - 43
- **Moderate adverse** - 47
- **Slight adverse** - 265
- **No change** - 575
- **Slight Beneficial** - 70

Settings of Conservation Areas, Scheduled Ancient Monuments and Listed Buildings (Appendix 8.2)

- 8.6.23 The grassed main cutting above Kingskerswell Conservation Area would appear similar to the existing hillside when viewed from the old village below, but the rock cutting and the Maddacombe Road overbridge would affect parts of the Conservation Area. However, traffic would be unseen at the foot of the hill, only the tops of lorries would be visible from some parts of the Conservation Area and the landform would reduce noise, so the Conservation Area is assessed as **Moderately adverse** affected in Year 1. By Year 15, woodland would have masked both cuttings and overbridge, so the visual effect would be No change. However, the overall effect in Year 15 is assessed as **Slight adverse** in both summer and winter, mainly on account of some permanent loss of tranquillity and the Maddacombe Road overbridge.

- 8.6.24 The numbers of Listed Buildings and Structures in each adverse effects on settings category are as follows:

YEAR 1

- **Substantial adverse** - 3
- **Moderate adverse** - 4
- **Slight adverse** - 2
- **No change** - 4

YEAR 15

- **Substantial adverse** – none

- **Moderate adverse** – 2
- **Slight adverse** – 5
- **No change** – 6

The effect on the Manor Ruins SM is assessed as **Moderate adverse** in Year 1 and **Slight adverse** in Year 15 and on the Kerswell Down SM, **Slight adverse** in Year 1 and Year 15.

Public Rights of Way and Recreation Areas

8.6.25 See Figure 8.13 and Appendices 8.3 and 8.4.

## 8.7 Conclusions and Summary

8.7.1 The visual envelope of the Scheme is largely restricted to the densely-developed Kingskerswell valley.

8.7.2 The adverse landscape and visual impacts would be mitigated by measures which include extensive false cuttings to minimise the visual intrusion of traffic on the Aller junction embankment and where the Scheme would traverse the valley sides to the west of Kingskerswell, which are overlooked by much of the Kingskerswell. There would also be extensive areas of new woodland planting, visually linking with existing woods. The pattern of hedges would be reconnected with new highway boundary hedges.

8.7.3 There would be substantial adverse landscape and visual impacts during the construction phase along the whole length of the Scheme. These would be much diminished once the mitigation works have been implemented and new planting becomes established.

8.7.4 The landscape and townscape assessments are summarised in Table 8.2.

**Table 8.2 Summary of Landscape and Townscape Assessments**

LCA	Construction Phase (assessed as a 'snap-shot' at the stage of greatest disruption)	Operational Phase Year 1	Operational Phase Year 15
1A	Moderate adverse	Moderate adverse	Slight adverse
1B	Moderate adverse	Moderate adverse	Slight adverse
1C	Moderate adverse	Moderate adverse	Slight adverse
2	Neutral	Neutral	Neutral
3	Neutral	Neutral	Neutral
<b>TCA</b>			
A1	Slight adverse	Slight adverse	Slight adverse
A2	Slight adverse	Slight adverse	Slight adverse
A3	Neutral	Neutral	Neutral
A4	Neutral	Neutral	Neutral
B1	Slight adverse	Slight beneficial	Slight beneficial
B2	Neutral	Slight beneficial	Slight beneficial
C	Neutral	Neutral	Neutral

8.7.5 The visual effects on residential properties are summarised in Table 8.3.

**Table 8.3 Summary of Effects on Residential Properties**

Numbers affected in:

Effects	Construction Phase (assessed as a 'snap-shot' at the stage of greatest disruption)	Year 1	Year 15
Substantial Adverse	245	183	43
Moderate Adverse	174	165	47
Slight Adverse	536	564	265
No Change	All properties with no views of scheme	18	575
Slight Beneficial	0	70	70

8.7.6 The visual effects on the Kingskerswell Conservation Area are assessed as **Substantial Adverse** during construction, **Moderate adverse** in Year 1 and **Slight adverse** in Year 15.

8.7.7 The visual effects on the settings of Listed Buildings and Structures are summarised in Table 8.4.

**Table 8.4 Summary of Effects on Listed Buildings and Structures**

Numbers affected in:

Effects	Construction Phase (assessed as a 'snap-shot' at the stage of greatest disruption)	Year 1	Year 15
Substantial Adverse	7	3	0
Moderate Adverse	0	4	2
Slight Adverse	4	2	5
No Change	2	4	6
Slight Beneficial	0	0	0

8.7.8 One of the above is also a Scheduled Monument (SM), for which the effects are assessed as **Substantial adverse** during construction, **Moderate adverse** in Year 1 and **Slight adverse** in Year 15. Effects on the other SM, the Kerswell Down field system, are assessed as **Slight adverse** during construction and during the operational phase.