



# The Derriford Transport Scheme

**WEBTag Townscape and  
Visual Impact Appraisal**

On behalf of **Plymouth City Council**



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Office Address: 10 Queen Square, Bristol, BS1 4NT  
T: +44 (0)117 928 1560 E: bristol@peterbrett.com



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	Name	Position	Signature	Date
<b>Prepared by:</b>	Natasha Jones	Associate		13 <sup>th</sup> October 2014
<b>Reviewed by:</b>	Nigel Evers	Director		13 <sup>th</sup> October 2014
<b>Approved by:</b>	Bob Pinkett	Partner		13 <sup>th</sup> October 2014
<b>For and on behalf of Peter Brett Associates LLP</b>				

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# 1 Introduction

## 1.1 Introduction

1.1.1 Peter Brett Associates LLP was commissioned by Plymouth City Council to undertake a townscape and visual appraisal of the proposed changes to Derriford Roundabout and the William Prance Road junction, as part of the consideration of potential effects upon environmental capital.

1.1.2 This WEBTag based Townscape and Visual Impact Appraisal (WTVA) has been undertaken in accordance with the approach to townscape assessment as set out in Chapter 7: Impacts on Townscape, TAG Unit A3 Environmental Impact Appraisal (January 2014, Department for Transport). The methodology for the WTVA is also based on professional experience and follows the principles of the Landscape Institute / Institute of Environmental Management and Assessment 'Guidelines for Landscape and Visual Impact Assessment' (3<sup>rd</sup> Edition, 2013).

1.1.3 Townscape is defined in Section 7: Impacts on Townscape, TAG Unit A3, paragraphs 7.1.1 and 7.1.2:

*'Townscape is the physical and social characteristics of the built and non-built urban environment and the way in which we perceive those characteristics. It is this mix of characteristics and perceptions that make up and contribute to townscape character and give a 'sense of place' or identity.*

*The physical characteristics of a townscape are expressed by the development form of buildings, structures and spaces. The development form influences the pattern of uses, activity and movement in a place and the experience of those who visit, work and live there.'*

1.1.4 The WTVA was carried out by a chartered landscape architect at Peter Brett Associates LLP, a registered practice with the Landscape Institute and a member of the Institute of Environmental Management and Assessment.

1.1.5 The WTVA examines the role of the existing roundabout and junctions in the townscape, the likely extent of visibility from key public approaches to the junctions and appraises the changes to townscape features, townscape character and key viewpoints. It has been informed by a data trawl and initial desktop assessment. A site visit took place to confirm the baseline and desktop assessment, and undertake a photographic survey to provide representative panoramic photographs from the selected key viewpoints.

## 1.2 Description of the Scheme and Site

1.2.1 Options for measures to reduce congestion between Derriford Roundabout and William Prance Road, and to create greater road capacity, are currently being considered as part of the Derriford Transport Scheme.

1.2.2 Bus priority measures are proposed to be provided at both junctions to improve journey times and make services more reliable, particularly those to Derriford Hospital. Pedestrian crossing facilities and on-road cycle facilities are also proposed to be improved.

1.2.3 This WTVA has been prepared based on the Preferred Option scheme set out on Drawing Number PL1815804-FEA-035 Rev A and Option CV2.

1.2.4 The scheme area is located within the urban area of north Plymouth which comprises a mixture of retail, hotel, business park and residential land uses. The A386 is a major route between the north of the city and the city centre, providing access to key city destinations

including Derriford Hospital, the University of St Mark and St John, and the Tamar Science Park.

## 2 Methodology

### 2.1 Townscape Appraisal Methodology

- 2.1.1 The methodology for appraising the impact of the proposed changes to the junctions on the townscape follows the five step general approach to appraising 'environmental capital' described in Chapter 5 of TAG Unit A3 Environmental Impact Appraisal. This methodology provides additional, townscape specific information to be used in steps 2 to 5 of the guidance given in Chapter 5 TAG Unit A3 Environmental Impact Appraisal (note that there is no townscape-specific information for step 1).
- 2.1.2 A **Townscape Appraisal Worksheet** has been completed for the assessed scheme, and is included in **Appendix B** of this report, describing townscape features which together create townscape character. Townscape character is considered to be a key environmental resource.
- 2.1.3 Each of the townscape features are described and assessed against the following indicators:
- Scale it Matters;
  - Rarity;
  - Importance;
  - Substitutability; and
  - Baseline changes.
- 2.1.4 The impact is recorded in the final column of the Townscape Appraisal Worksheet. The assessment score is derived from Table 1 (see paragraph 2.1.14), which gives a seven point scale based on the proposal's fit with the features of the townscape, visual impact, loss of character or features, degree of mitigation and effect on policies.

#### The Appraisal Steps

- 2.1.5 **Step 2** identifies key townscape elements and describes their features including the urban character. This process systematically records and expresses the characteristic and locally distinctive features of an area. Reference has been made, where available and appropriate, to published documents which describe the area, such as townscape appraisals, Conservation Area character appraisals, descriptions of listed buildings and Local Plan policies. This provides the baseline character information, against which the incremental impact of proposals on that character is appraised.
- 2.1.6 As 'townscape' is a complex mix of physical features and patterns, and cultural understandings, the level of detail of townscape character assessment and appraisal is required to be in proportion to the scheme proposed.
- 2.1.7 In order to assess the character of a key townscape environmental resource, the features of the townscape are identified and described in the first column (headed **Description**) in the Townscape Appraisal Worksheet, Appendix B. **Features** are the summation of those attributes which most strongly define a key townscape environmental resource and which will exhibit the impacts of a scheme. They are a mixture of physical (development form) and cultural characteristics and the way in which people perceive these characteristics. Standard definitions by Chapter 7 of WEBS Tag Unit A3, of the features which combine to define townscape, are set out below:

- **Layout** is the way that buildings, routes and open spaces are placed in relation to each other. It provides the (usually) two dimensional arrangement on which all other aspects of the form and uses of a townscape depend. Note that, in some locations, if the underlying topography is hilly, layout must be considered in three dimensions, It is influenced by the structure of the townscape (the connecting framework and hierarchy of routes and spaces) and by the urban grain. This is the pattern of the arrangement and area of buildings and their plots in a settlement and the degree to which an area's pattern of streets and junctions are small and frequent (fine grain) or large and infrequent (coarse grain). For example: "this townscape is characterised by residential streets interspersed with small urban parks".
- **Density and mix** refers to the amount of floorspace of buildings relative to an area and the range of uses. Density determines the intensity of development and with mix contributes to the vitality and viability of a townscape. For example, a transport scheme may encourage the preponderance of certain building uses within an area.
- **Scale** is the size of buildings and structures in the townscape in relation to their surroundings. It can be understood in terms of the height and mass of buildings and structures. Height determines the relationship between buildings, structures and spaces and the visual impact on views, vistas and skylines. Note that the impact of height can be more complex where the underlying topography is hilly. For example, the construction of a road flyover or rail viaduct may have a major impact upon the sense of enclosure, and on views and vistas and skylines.
- **Appearance** and local distinctiveness of buildings and structures within a townscape are influenced by their detail and materials. Detail refers to the craftsmanship, building techniques, facade treatment, styles and lighting. Materials refer to the texture, colour, pattern and durability and how they are used. It is important to appraise how well, or poorly, transport plans fit in with the appearance of buildings and structures.
- **Human interaction** - this term relates to the way people (rather than vehicles) interact with the urban environment. A major element in this relationship is how the community works in terms of interactions in those places that together contribute to townscape. It is important to appraise how social interactions and their relationship with townscape may be changed by the implementation of a transport scheme. In an urban environment communities are omnipresent. However the centres of those communities (e.g. main shopping areas) may be more highly valued. One indicator of whether a strong community exists will often be the presence and scale of pedestrian activity (particularly in the centres of communities), together with the quality of the pedestrian environment (excluding any noise or air quality factors, covered elsewhere). One can imagine an environment where, for example, high levels of pedestrian activity on narrow pavements are in close proximity to heavy vehicle flows. This attribute should also take account of more static interactions between townscape and people, such as the presence of shops, pavement cafes, and seating.
- **Cultural** - this term should cover descriptions of how townscape elements of a traditional or historic nature contribute to townscape character. For example, built forms and architectural styles, the presence of coherent groups of buildings or distinctive street patterns, and notable and cherished buildings and other cherished features. Description of such townscape features must be viewed in terms of their contribution to the overall townscape character, rather than in terms of their historic environment value, which will be separately appraised in more detail under the Historic Environment topic.
- **Summary of character** - this should summarise and pull together the relationship between the primary characteristics and features or attributes of the key townscape environmental resource being appraised. More general observations on the texture and diversity of the townscape, its scenic qualities, type and degree of development and visual unity or disharmony should be made here.

2.1.8 **Step 3** is the appraisal of the 'townscape environmental capital', and considers what matters in the townscape and why it is important. This provides a base level of environmental capital, against which the impact of the proposal on that level of capital can be appraised. Townscape indicator columns in the Townscape Appraisal Worksheet are defined in Chapter 7 of WEBTag Unit A3, as follows:

- **Geographical scale** - the geographical scale at which the feature matters to both policy makers at all levels and to the local stakeholders (businesses, interest groups, residents, and so on). The scale at which features matter will not necessarily be on the same scale as the feature itself. For example, a large urban park may only matter to local people, while conversely a small single element in the townscape, for example, the Sainsbury Wing of the National Gallery, will matter at a national scale for a number of reasons.
- **Rarity** - interpreted as to whether the townscape features being evaluated prior to impact appraisal are commonplace to the locality or scarce. Rarity often relates directly to importance. For example, the inter-relationship between buildings and open spaces may be a commonplace feature of the local townscape at the scheme level, but it has high importance and matters at a national scale. Conversely, the use of certain building materials or architectural styles could make an important contribution to townscape character locally, and thus be relatively rare within the townscape at the scheme level, but will be of less than regional importance. Retention of townscape character is as much about safeguarding and keeping the commonplace common, as it is about conserving and protecting the rare.
- **Importance** - how important is this feature; at what level is it important, for example, high, medium, or low and at national/regional/local level; and to whom is it important. For example, an individual building or group of buildings e.g. local authority offices, may be of very high importance at the local level, both in symbolic significance and as a townscape element framing views of the skyline, but do not figure at a regional or national level. In answering this question, qualitative judgments must be made, but not just about townscape quality in isolation. Assessing importance is straightforward where recognised policy judgments about the importance of features (and their associated elements) have been made, for example, through the planning process. Designated structures and areas, such as listed buildings, registered parks and gardens and conservation areas will guide assessments of importance, but do not provide a simple definition of importance. For example, Conservation Areas should not be seen as of only local importance, as local authorities are responsible for making these designations. However it must be recognised that the majority of the urban environment comprises undesignated townscapes, which can also be of high quality and of great importance. This will, out of necessity, be both a matter for professional judgment (for example quality, survival, diversity) and public perception (for example, local views and walks with cultural connotations and associations). The subjectivity of assessing importance is an integral part of townscape appraisal and should not be regarded as a weakness of it. This approach also enables policies with environmental objectives based on quality to be set within the context of character assessment and appraisal.
- **Substitutability** - This column identifies whether townscape features and their constituent elements are substitutable or not within a given time frame. A key difference between landscape and townscape appraisal in terms of Substitutability is that most townscape functions can be replaced to some extent, which is often not the case for landscape.
- **Baseline Changes** (or, changes in the "without scheme" case) - Change is a constant feature of the urban environment and reflects the dynamic nature of humans and their activities. The characteristics of the urban environment and our perceptions of them are constantly changing. Physical and social characteristics change as buildings, structures, routes and squares are added, removed, modified or their use altered. People's perceptions also change as, over time, their values change. In addition, as people move

in and away from an urban area, society's collective perceptions about the urban environment will alter. Change in the urban environment may arise as a result of specific projects (e.g. a new building), changes in transport and non-transport policies (e.g. the introduction of traffic calming measures, or new housing policies) or as a result of other influences (e.g. changes in cultural preferences). Due to its changing nature, the urban environment has great potential to be enhanced by change. Equally, the potential for an urban area to change for the better, either through positive intervention or in a more evolutionary manner, can be stymied by unsympathetic proposals. It is therefore important that impacts are appraised with a good understanding of the dynamics of an urban area, including its potential. These changes, which will or could occur in the absence of specific transport schemes - the 'without scheme case' - need to be taken into account in appraising specific transport schemes. This column in the worksheet should be used to identify the key changes that will occur in the absence of the transport scheme.

2.1.9 **Step 4**, appraising the scheme's impact on townscape, is summarised in the column headed 'Impact' on the Townscape Appraisal Worksheet. This column systematically describes and scores the potential impacts of the scheme on the townscape features. In assessing impact, the information on Importance and Substitutability will be particularly relevant. All impacts on the townscape, both adverse (damaging or negative) and beneficial (enhancing or positive) are required to be identified along with their predicted magnitude. In making these assessments, account is taken of baseline changes. At this stage of the proposals, an Environmental Impact Assessment has not been carried out, and therefore the WTVA makes a preliminary judgement of impacts. In particular, the appraisal considers how the scheme could impact on and change:

- the character of key townscape environmental resources, such as effects on the locally distinctive pattern of townscape features;
- the ambience of an urban area and the way people interact with the key townscape environmental resource; and
- the tolerance of the key townscape environmental resource to accommodate further change.

2.1.10 In WEBTag, and therefore as part of the WTVA, it is accepted that any scheme will include appropriate environmental design measures as part of its design to achieve best fit within the townscape. The impact of the proposed scheme on the townscape is therefore judged on this basis.

2.1.11 Where additional mitigation is considered to be advisable, it is not taken into account in determining the overall assessment score, as no commitment can be made to its implementation. However, recommended additional mitigation is set out in Section 5 of this report and effects of that recommended additional mitigation are noted in the qualitative statement part of the worksheet.

2.1.12 In **Step 5**, determining the overall assessment score for townscape, the significance of each of the individual impact scores for each townscape feature is evaluated. An important pointer is the impact score for "summary of townscape character" as this indicates how well the proposal would fit with the existing townscape. However, even when a scheme would fit well within an urban environment, there may be an impact on particular townscape features that could dominate the initial fit. For example, a well-designed scheme that includes environmental design measures could nevertheless, because of the chosen alignment, bisect and fragment the form and social character of an important and nationally significant key townscape environmental resource.

2.1.13 The overall impact on the townscape is summarised using the WEBTag standard seven point scale (Slight, Moderate or Large Beneficial or Adverse, plus Neutral) for townscape impact appraisals, as set out in Table 1 below:

Table 1: Townscape – Definitions of Overall Assessment Scores (as set out in Chapter 7, WEBTag Unit A3, May 2014)

Score	Description
<b>Large beneficial (positive effect)</b>	The scheme provides an opportunity to enhance the townscape because: <ul style="list-style-type: none"> <li>• it enhances the layout, mix, scale, appearance, human interaction and cultural aspects of the townscape;</li> <li>• it enables the restoration of the characteristic features of the townscape, partially lost or diminished as the result of changes resulting from inappropriate development;</li> <li>• it enables a sense of place and scale to be restored through well-designed mitigation measures, that is, characteristic features are enhanced through the use of local materials to fit the proposal into the townscape;</li> <li>• it enhances the character of the townscape through beneficial and sensitive design in a townscape which is not of any formally recognised quality;</li> <li>• it facilitates government objectives to regenerate degraded urban areas.</li> </ul>
<b>Moderate beneficial (positive effect)</b>	The scheme provides an opportunity to enhance the townscape because: <ul style="list-style-type: none"> <li>• it fits very well with the layout, mix, scale, appearance, human interaction and cultural aspects of the townscape;</li> <li>• there is potential, through environmental design measures, to enable the restoration of characteristic features, partially lost or diminished as the result of changes resulting from inappropriate development</li> <li>• it will enable a sense of place and scale to be restored through well-designed environmental design measures, that is, characteristic features are enhanced through the use of local materials to fit the proposal into the townscape</li> <li>• it enables some sense of quality to be restored or enhanced through beneficial and sensitive design in a townscape which is not of any formally recognised quality</li> <li>• it furthers government objectives to regenerate degraded urban areas</li> </ul>
<b>Slight beneficial (positive effect)</b>	The scheme: <ul style="list-style-type: none"> <li>• fits well with the layout, mix, scale, appearance, human interaction and cultural aspects of the townscape;</li> <li>• incorporates environmental design measures for mitigation to ensure they will blend in well with surrounding townscape.</li> <li>• will enable some sense of place and scale to be restored through well-designed environmental design measures.</li> <li>• maintains or enhances existing townscape character in an area which is not designated for the quality of its townscape, nor vulnerable to change.</li> <li>• avoids conflict with government policy of enhancing urban environments</li> </ul>
<b>Neutral effect</b>	The scheme is well designed to: <ul style="list-style-type: none"> <li>• complement the layout, mix, scale, appearance, human interaction and cultural aspects of the townscape;</li> <li>• incorporate environmental design measures to ensure that the scheme will blend in well with surrounding townscape characteristics and elements</li> <li>• avoids being visually intrusive nor have an adverse effect on the current level of tranquillity (where these exist) of the townscape through which the scheme passes.</li> <li>• maintains existing townscape character in an area which is not a designated townscape, that is, neither national or local high quality, nor is it vulnerable to change.</li> <li>• avoids conflict with government policy towards enhancing urban environments</li> </ul>
<b>Slight adverse (negative effect)</b>	The scheme: <ul style="list-style-type: none"> <li>• does not quite fit the layout, mix, scale, appearance, human interaction and</li> </ul>

Score	Description
	cultural aspects of the townscape <ul style="list-style-type: none"> <li>• although not very visually intrusive, will impact on certain views into and across the area.</li> <li>• cannot be completely integrated because of the nature of the scheme itself or the character of the townscape through which it passes.</li> <li>• affects an area of recognised townscape quality.</li> <li>• conflicts with local authority policies for enhancing urban environments</li> </ul>
<b>Moderate adverse (negative effect)</b>	The scheme is: <ul style="list-style-type: none"> <li>• out of scale or at odds with the layout, mix, scale, appearance, human interaction and cultural aspects of the townscape</li> <li>• is visually intrusive and will adversely impact on the townscape</li> <li>• not possible to fully integrate, that is, environmental design measures will not prevent the scheme from scarring the townscape in the longer term, as some features of interest will be partly destroyed or their setting reduced or removed.</li> <li>• will have an adverse impact on a townscape of recognised quality or on vulnerable and important characteristics or elements.</li> <li>• in conflict with local and national policies to enhance the urban environment</li> </ul>
<b>Large adverse (negative effect)</b>	The scheme is very damaging to the townscape in that it: <ul style="list-style-type: none"> <li>• is at considerable variance with the layout, mix, scale, appearance, human interaction and cultural aspects of the townscape.</li> <li>• is visually intrusive and would disrupt fine and valued views of the area.</li> <li>• is likely to degrade, diminish or even destroy the integrity of a range of characteristic features and elements and their setting.</li> <li>• will be substantially damaging to a high quality or highly vulnerable townscape, causing it to change and be considerably diminished in quality.</li> <li>• cannot be adequately integrated</li> <li>• is in serious conflict with government policy for the enhancement of the urban environment</li> </ul>

## 2.2 Visual Appraisal Methodology

- 2.2.1 The visual appraisal considers the effects of the proposed scheme on the key views available to people and their visual amenity, as a result of the change to, or loss of, existing elements of the townscape and/or the introduction of new elements.
- 2.2.2 Informed by the data trawl and initial desktop assessment, preliminary viewpoints were selected and which were considered to represent key views from publicly accessible locations, on approaches to the junctions.
- 2.2.3 The site and surrounding area was visited and a photographic record to represent views of the selected assessment viewpoints was undertaken, in order to:
- a. Determine the extent of visibility of the existing junctions;
  - b. Determine the visibility of the proposed changes to the junctions;
  - c. Gain further understanding of the urban components which create the townscape character; and
  - d. Carry out the appraisal of townscape and visual effects.
- 2.2.4 Panoramic photographs representing typical or key views are set out in **Appendix A**.

- 2.2.5 The WTVA describes the baseline views from representative viewpoints, the changes or differences which are likely to occur as a result of the proposed changes to the junctions, and identifies whether those changes are in keeping, or are out of character, with the existing situation (adverse/negative or beneficial/positive effects).

## 3 Townscape Appraisal

### 3.1 Townscape Features

3.1.1 Townscape features in relation to the proposed scheme are illustrated on **Townscape Analysis, Figures L1 and L2, Appendix A.**

3.1.2 Existing townscape features, which together create the townscape character of the scheme area, are considered in detail in the Townscape Appraisal Worksheet and include:

- Layout;
- Density and mix;
- Scale;
- Appearance;
- Human interaction; and
- Cultural and Land use.

3.1.3 As the scheme area is situated within the urban context and existing highway arrangements, it is dominated by the hard surfacing of highways and adjacent footways, signage and roadway signage, barriers, pedestrian crossings and traffic signals, as well as the traffic and movement associated with this busy and key transport corridor.

3.1.4 In addition, there are green spaces and vegetation located within the scheme area, comprising:

- a. Mown grass;
- b. Individual trees; and
- c. Mature trees along the line of a former ditch and hedgerow, situated within the existing central reservation area and Derriford roundabout.

3.1.5 Green spaces adjacent to or in proximity to the scheme area, which also have pedestrian and/or cycle connections to the A386 and scheme area include:

- a. Crownhill Fort Scheduled Ancient Monument (SAM); and
- b. Bircham Nature Reserve.

3.1.6 There are no Listed Buildings, SAMs or Tree Preservation Orders (TPOs) directly affected by the proposed scheme.

3.1.7 Public rights of way which link to or cross through the scheme area are also shown on **Figures L1 and L2**, and include the Plymouth Cross City Link long distance footpath.

### 3.2 Townscape Character

3.2.1 The scheme area is characterised by virtue of it being a key transport corridor into the city centre. However, there are subtle differences in appearance and sense of place throughout

the scheme area, due to variations in the built and non-built environment within it. These are broadly split into three townscape character zones, illustrated on **Figures L1** and **L2** in **Appendix B**, and comprising:

- a. **Townscape character zone A:** This character zone has a strong green appearance, provided by the large areas of grass within Derriford Roundabout, at the roundabout junctions and within the central reservation leading from the roundabout, southwards, to Sendall's Way. These grass areas, the scale of the roundabout and subsequent limited enclosure, provide a sense of green open space and include small areas of shrub planting on the roundabout as well as individual trees and a strong line of mature trees along a former ditch and hedgerow. The open space and mature trees create a green gateway and sense of arrival, and help to reduce the dominance and scale of hard materials, traffic and urban character of the highway corridor.
- b. **Townscape character zone B:** This zone comprises attractive roads which include tree or shrub planting or grass verges alongside them, contain some road signage and although are main routes, they are narrower than the main A386 corridor and link between the Derriford roundabout or A386 and the retail, commercial, hotel and office land uses. These roads may also be in areas associated with recent development and have a sense of recent or forthcoming change around them.
- c. **Townscape character zone C:** This character zone is urban with fewer trees and dominated by the A386 transport corridor, with traffic, narrow central reservations and grass verges, occasional small individual trees within the central reservation area, and containing a plethora of road signage, junctions and traffic signals. The perception of this zone is very much one of being in an urban and fast moving major roadway into the city.

### 3.3 Townscape Impacts Worksheet and Appraisal

3.3.1 The Townscape Impacts Worksheet and Appraisal is contained within **Appendix C** and sets out in detail the effects of the proposed scheme upon individual components and townscape features which together create the townscape character.

3.3.2 The appraisal identified the following townscape effects upon individual elements:

- a. Layout: **moderate adverse**;
- b. Density and mix: No direct effects;
- c. Scale: **slight adverse**;
- d. Appearance: **moderate adverse**;
- e. Human interaction: **neutral**;
- f. Cultural: **slight adverse**;
- g. Land use: No direct effects; and
- h. Summary of townscape character:
  - Townscape character zone A: **moderate adverse**
  - Townscape character zone B: **slight adverse**
  - Townscape character zone C: **neutral**.

- 3.3.3 The overall summary assessment score is appraised as being **slight to moderate adverse** townscape effects. This arises as a result of the loss of mature trees and grass areas, loss of visual amenity and green character which is a defining feature of the character zone A, Derriford roundabout and the A386 southern approach to the roundabout, and consequential reduction in visual enclosure, increase in scale and openness of the highway in these locations as well as increase in hard surfacing, vehicle lanes and traffic. This assessment also recognises the importance of the townscape features and the role of the Derriford roundabout as a gateway to the city centre.

## 4 Visual Appraisal

### 4.1 Existing Views

- 4.1.1 Views of the scheme area are provided by the highway and footways within it, including public rights of way through it. In addition, there are elevated views from Crownhill Fort (SAM) which has public access.
- 4.1.2 Visual receptors are people travelling through the scheme area either on foot, cycle or in vehicles, and those visiting the surrounding retail outlets, offices, commercial and business parks, hotels, Crownhill Fort (SAM) and Bircham Nature Reserve or using the Plymouth Cross City Link.
- 4.1.3 For the purpose of this visual appraisal, 6no. viewpoints have been selected to represent typical views of the existing scheme area from key locations. Short descriptions of views from these locations are:
- a. **Viewpoint 1:** Looking northwards, from footway on A386, adjacent to KFC. Little built enclosure; instead enclosure to the highway corridor is provided by mature trees and hedgerows adjacent to the road. Street lights, signage, bus lane and road markings, bus stops, vehicles and the road are seen, however the wide grass verges and mature trees within the central reservation and roundabout provide the green character to this area.
  - b. **Viewpoint 2:** Looking southeast, from Looseleigh Lane approaching Derriford Roundabout. Traffic signals, lighting columns, vehicles, road markings are visible, however the line of mature trees on the Derriford roundabout provide a strong landscape feature and visual enclosure, reducing the scale of the highways layout.
  - c. **Viewpoint 3:** Looking from the southeastern side of Derriford roundabout at the junction with Brest Road including road markings, signage, traffic signals, lighting columns and vehicles. This viewpoint shows the large scale open space character of the Derriford roundabout with mown grass, footpaths, cycleways and mature trees. The mature trees in the central reservation of the A386 are also visible, which screen the buildings of the retail park. Visual enclosure is provided by the mature trees in this view.
  - d. **Viewpoint 4:** Looking westwards from William Prance Road approaching the A386, looking towards Crownhill Fort. This is a wide road junction with barriers, traffic signals, lighting columns, road markings and vehicles. Retail buildings are low in the townscape and are seen across the junction. Crownhill Fort is situated to the west, its landform and mature trees rising behind the junction. The fort itself is not visible in this view, but the green space and approach to the fort is. This view is dominated by the road layout, busy junction and traffic.
  - e. **Viewpoint 5:** View from elevated pedestrian approach to/from Crownhill Fort. The view is from the elevated landform, looking towards William Prance Road and the hotel building on the skyline. The retail buildings sit low in the townscape amongst a framework of mature trees. The recent tree and shrub planting along William Prance Road can be seen in front of the hotel. The many lighting columns and traffic signals at the A386 / William Prance Road junction are noticeable as a group, and the grassed area with sculpture signage in front of the hotel is seen from this viewpoint location.
  - f. **Viewpoint 6:** Looking northwards, from footway on A386 and adjacent to the southern corner of Crownhill Fort. Enclosure is provided to the eastern side of the highway corridor by the mature vegetation and slopes associated with the southern end of the Crownhill Fort; and enclosure to the west is provided by built form of residential properties. There

are some individual trees situated within the grassed central reservation area. Lighting columns, road markings and vehicles form the core of the view.

## 4.2 Visual Effects

4.2.1 The visual effects described below reflect the changes likely to occur as a result of the current outline proposals, and therefore do not include any proposed replacement planting.

4.2.2 The changes or differences which are likely to occur to views from the selected viewpoints are:

- a. **Viewpoint 1:** The proposed junction changes will result in a narrowing of the central green verge area, and consequently a loss of the mature trees in the centre of the road. There will be a loss of visual amenity due to the reduction of visual enclosure, increased openness and a reduction of the green character of the view, increased views of moving traffic, additional vehicle lanes and hard surfaces, additional road markings, and changes to the lighting columns and road signage. The resulting visual effect will be **moderate adverse**.
- b. **Viewpoint 2:** The proposed changes to the roundabout and junctions will lead to repositioning of the traffic island in the foreground of the view, and the additional vehicle lanes will reduce the area of grass verge in the left of the view, with a new road edge, kerb line and footpath. The current proposals appear to result in the loss of the mature trees along the former hedgerow and ditch line located on the roundabout, opening up views across the roundabout, reducing visual enclosure and the green elements within the view, resulting in a loss of visual amenity and increasing the perception of scale of the roundabout from this location. Additional hard materials, new signage and traffic signals will result from the additional vehicle lanes. The resulting visual effect is considered to be **moderate adverse**.
- c. **Viewpoint 3:** In this view, there will be a change to the traffic island in the foreground. The mature trees in the centre background of this view, to the centre of the southern A386, will be removed to provide additional vehicle lanes and resulting in opening up views to the retail park buildings and boundary, increasing visual openness. Changes to the roundabout which will be visible include the loss of the trees on the northern side of the roundabout (described above in effects for viewpoint 2), and a reduction of the grassed area of the roundabout to provide additional vehicle lanes. There will be an increase in the amount of hard surfacing and changes to signage and traffic signals. The visual effect is also considered to be **moderate adverse** as a result of the loss of visual amenity, enclosure and green character arising from the loss of the mature trees.
- d. **Viewpoint 4:** There will be an increase in scale of this already large junction, as a result of the new bus lane and vehicle lanes in the left of this view. These changes will result in loss of the existing boundary hedging, and subsequently enabling a greater view of the A386 and towards the Crownhill Fort in the background. Other changes to the view will be repositioning of vehicle lanes and creation of a larger traffic island in the centre of the view, as well as loss of green verge and sculpture sign area in front of the hotel to the right of this view. The existing junction is already dominated by hard materials, road layout, traffic, lighting columns, barriers and traffic signals; therefore whilst there will be some loss of grassed areas and hedging, the changes to the view are considered to be a **neutral** visual effect from this viewpoint.
- e. **Viewpoint 5:** The current proposals appear to result in some loss of trees and shrub / hedge planting along William Prance Road, and of the hedging in the right hand side of the view; opening up views to the hotel elevation and adjacent development area. The additional vehicle lanes and junction widening will also result in loss of the grassed area and sculpture signage in front of the hotel. Trees removed in the central verge area of the A386 on the approach to the roundabout will create a reduction in tree canopies in the

centre midground of this view, however other existing mature trees remain at a higher level and in the background on the skyline. There will be changes to the arrangement of traffic signals and lighting columns. Overall it is considered that the visual effects will be **slight adverse** as a result of the loss of trees and other vegetation, increasing views of built form from this location.

- f. **Viewpoint 6:** Changes arising from the proposals in this view include new road markings for a new bus lane, narrowing of the central grassed verge to provide additional vehicle lanes and potential tree loss from the central verge area. The arising visual effects are considered to be **slight adverse** as a result of the tree loss in the view.

4.2.3 The visual appraisal therefore finds that the greatest adverse visual effects arise as a result of the loss of mature trees in the southern A386 approach to Derriford roundabout and on the roundabout itself. There are no visual benefits arising from the proposed scheme at this stage.

## 5 Recommended Mitigation

### 5.1 Current Proposals

- 5.1.1 This WTVA recognises that the current proposals are at an outline level, and therefore do not show the detailed relationship between the proposals and extents of existing vegetation which will be required to be removed to facilitate the junction and roundabout changes. The current proposals also do not include a replacement tree and shrub planting scheme at this stage. However, it is considered appropriate that additional townscape and visual mitigation measures in the form of new and replacement planting should ultimately be incorporated over and above the basic design of the scheme.
- 5.1.2 It is anticipated that replacement tree and shrub planting proposals to mitigate adverse townscape and visual effects will be progressed in detail at a later design stage.

### 5.2 Recommended Townscape and Visual Mitigation

- 5.2.1 The following recommended additional townscape and visual mitigation measures are considered to be essential to neutralise the impact of the scheme on the character of the townscape and views in the long term:
- a. Replacement tree planting within the remaining central verge areas, particularly on the A386 approach to Derriford Roundabout from the south. Ideally this should include provision of semi-mature trees with appropriate and integrated root barrier and irrigation solutions to ensure longevity of the new tree planting and provide protection to underground services and utilities. The purpose of this replacement planting is to ultimately retain the green character of this gateway into and out of the city in the long term, and to reduce scale, provide additional visual enclosure as well as reduce the domination of hard surfaces and moving traffic;
  - b. Replacement tree planting within Derriford roundabout to replace that which will be lost and in the long term retain a green character and provide a sense of scale and visual enclosure. As above, this should include provision of semi-mature trees with appropriate and integrated root barrier and irrigation;
  - c. Replacement tree planting within the street along William Prance Road to reduce and soften views into adjacent development and built areas and provide an attractive environment; and
  - d. Incorporate new street tree planting within the highway corridor of the A386 (particularly within townscape character zone C, see **Figure L2, Appendix B**) to provide townscape enhancement to the existing urban transport corridor and a greener route entering the city.
- 5.2.2 The achievability of the recommended planting mitigation is, of course, subject to the location of underground services and utilities. The time period for any replacement or new tree planting to become established features in the townscape will be subject to the initial sizes of trees that are planted as well as utilisation of appropriate construction details and ongoing management techniques.

## 6 Conclusions

### 6.1 Conclusions

- 6.1.1 This WTVA has found that the current proposed scheme, without the benefit of mitigation planting, will result in **slight to moderate adverse** townscape effects and **moderate adverse** visual effects to Viewpoints 1 to 3. These findings reflect the predicted loss of environmental capital comprising: mature trees and grass areas, loss of visual amenity and green character which is a defining feature of the character zone A, Derriford roundabout and the A386 southern approach to the roundabout, and consequential reduction in visual enclosure, increase in scale and openness of the highway in these locations as well as increase in hard surfacing, vehicle lanes and traffic. This assessment also recognises the importance of the townscape features and the role of the Derriford roundabout as a gateway to the city centre.
- 6.1.2 Townscape and visual mitigation measures are set out in Section 5 of this WTVA, and are recommended to be incorporated over and above the basic design of the scheme. These are considered to be essential to neutralise the impact of the scheme on the character of the townscape and views in the long term. It is anticipated that such mitigation planting will be progressed in detail at a later stage of the scheme design process.

