Gloucestershire COUNTY COUNCIL

Landscape and Townscape Appraisal

Stonehouse, Gloucestershire

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Executive Summary

Amey plc has been commissioned by Gloucestershire County Council to seek improvements to four junctions on the A419 along the Stroud Valley. These four schemes have been considered as three study areas:

- Chipmans Platt Roundabout
- Oldends Lane Roundabout
- Downton Road to Horsetrough Roundabout

A desktop assessment of the likely key landscape and townscape effects has been undertaken in order to inform the emerging business case for the road improvements. Further work should include consultation with relevant local authority officers to obtain local knowledge and concerns. A more detailed appraisal based on a site visit should be undertaken once the scheme business case is approved.

At Chipmans Platt the key concern is that works to the east of the roundabout would involve some vegetation loss and a retaining structure would be required. A suitable design of the structure, such as the use of gabions filled with local rock and the addition of softening planting would help blend it into the local environment. However the roundabout is generally well vegetated with relatively wide vegetation belts on its periphery so that some local loss of vegetation would not be unacceptable. New planting opportunities around the roundabout should be explored and any gaps in the screening belts infilled. Careful detailing of hard surfacing, barriers and signage would ensure no adverse townscape impacts.

It is envisaged that the proposed works at Oldends Lane Roundabout would not have any adverse effects on sensitive landscape or townscape receptors. The extent of highway widening is very limited and in some areas the carriageway/footway would be reduced to provide a greater area of verge. Detail design of the scheme should consider the benefits of additional planting which could enhance the landscape. Careful detailing of hard surfacing, barriers and signage would ensure no adverse townscape impacts.

At Downton Road to Horsetrough Roundabout carriageway widening would cause tree loss which could open up views of the main road from houses on Boakes Drive. Replacement planting or offsite planting in gardens would mitigate this. Slight loss of boundary hedging on the north side of Bristol Road could be mitigated by replacement planting. Trees in the centre of Horsetrough Roundabout, would be unlikely to be affected by the improvement scheme. With appropriate mitigation, landscape and visual impacts would be negligible. However additional planting should be considered to further soften the roundabout, especially in views from the Cotswolds Area of Outstanding Natural Beauty (AONB), to achieve landscape enhancements.

Townscape effects would be very localised but would involve the relocation of the horse trough, which should be agreed with local stakeholders. The sensitive detailed design and siting of barriers, signage and hard landscape treatment would mitigate potential townscape effects. There would be no impact on the adjoining Conservation Area.

Overall the scheme is assessed as scoring Slight Adverse for Landscape and Neutral for Townscape using the WebTAG methodology.

In order to progress a detailed highway design and to develop detailed mitigation, a further site based Landscape and Townscape Appraisal should be undertaken after approval of the business case. Further recommendations include that an Arboricultural assessment of trees likely to be affected by the highway works should be undertaken and detailed landscape and townscape design proposals should be undertaken by a suitably qualified landscape architect.

Contents

1 Introduction

1.1 Background

This Landscape and Townscape Appraisal has been produced by Amey plc on behalf of Gloucestershire County Council (GCC) to address the potential impacts on landscape and townscape resources resulting from the improvement of four junctions along approximately 3km of the A419.

The junctions comprise:

- Chipmans Platt Roundabout (NGR 378444 206211)
- Oldends Lane Roundabout (NGR 379390 205416)
- Downton Road (NGR 380507 204884)
- Horsetrough Roundabout (NGR 380982 204783)

The site locations are identified in Figure 1 (Appendix C). The assessment is based on the highway layouts shown in Drawing Nos. COGL43047516/100/001 - /004.

The report identifies the key local landscape and townscape constraints likely to have an influence on the proposed junction improvement scheme; provides a qualitative assessment of the likely significance of effects of the scheme; and makes preliminary recommendations for mitigation and for future work.

In order to adopt a proportionate approach, the proposed works at Oldends Lane Roundabout have not been included in the detailed study as the works here would not have any adverse effects on sensitive landscape or townscape receptors. The extent of highway widening is very limited and in some areas the carriageway/footway is reduced to provide a greater area of verge. Detailed design of the scheme should consider the benefits of additional planting which could enhance the landscape. Careful detailing of hard surfacing, barriers and signage would ensure no adverse townscape impacts.

1.2 Methodology

The report has been prepared generally in accordance with Department for Transport TAG UNIT A3 Environmental Impact Appraisal guidance and the Guidelines for Landscape and Visual Impact Assessment (3rd Edition). A proportionate approach has been adopted: this is a preliminary report to inform the detailed assessment which will be required at later stages to fully develop the design and mitigation of the scheme.

Preliminary baseline information has been obtained solely by desk study (but will be informed by consultation with relevant local authority landscape/townscape officers and AONB officers at a later date). The study focuses on the immediate surroundings of the road corridor which would experience direct effects on the landscape and townscape: for example through loss of key landscape elements such as hedgerows and trees and the urbanisation of the townscape through increased road infrastructure. Reference is also made to more distant areas which could be visually affected by the proposals, especially where important and sensitive receptors such as residential properties, cherished views and valued landscapes/townscapes could be potentially adversely affected. Particular emphasis is given at this stage to identifying the most significant potential effects and identifying appropriate mitigation strategies as the highway design progresses.

The detailed methodology which is based on the WebTAG approach for the assessment and reporting of both landscape and townscape effects is described in more detail in Appendices A and B respectively.

2 Baseline Landscape and Townscape

2.1 Published Landscape Character

The Gloucestershire Landscape Character Assessment (Study Areas: The Severn Vale, Upper Thames Valley, Vale of Moreton, Vale of Evesham Fringe), January 2006 (GLCA) is a study of the local landscape of Gloucestershire Vales. All of the junctions fall within the extensive local landscape character area called Severn Vale: Vale of Berkeley (SV6A). The landscape type is classified as Settled Unwooded Vale.

Key Characteristics include:

- Soft, gently undulating to flat landscape, but with intermittent locally elevated areas that project above the otherwise flatter landform;
- Area drained by a series of east-west aligned tributaries of the Severn, including the Cam, Frome and Chelt, and the Stratford Avon flowing into the Severn from the north;
- Mixed arable and pastoral land use enclosed by hedgerow network, in places forming a strong landscape pattern;
- Limited woodland cover with mature hedgerow trees and occasional orchards;
- Rural areas bordered by large urban and suburban areas and interspersed with commercial and industrial premises;
- Varied mix of buildings materials including brick, timber and stone, and slate and thatch roofing;
- Proliferation of modern 'suburban' buildings styles and materials;
- Major transport corridors pass through the Vale, frequently aligned north south, beyond which is a network of local roads and lanes linking villages and hamlets; and
- Widespread network of pylons and transmission lines.

2.2 Baseline Local Landscape and Townscape Character

The scheme baseline at a more local level has been assessed using desktop research, including the GLCA assessment above, which is particularly relevant to landscape aspects, together with the Stonehouse Neighbourhood Development Plan - Submission Draft, which is also relevant to townscape and landscape. Other sources included OS mapping, Google Streetview and Magic GIS.

Chipmans Platt

At Chipmans Platt, the local landscape of the road infrastructure is well enclosed by high native boundary vegetation which generally screens the roundabout system and its traffic from the wider countryside. However this is a busy road system so that tranquillity is low. The services area to the north further extends the urbanising effect of the road. The surrounding landscape has some rural character but there are many urbanising features. This reflects many of the key characteristics identified in the GLCA.

The A419 forms a major road corridor which runs north west to south east following the northern flank of the River Frome valley, a tributary of the River Severn. There are many urban influences in the wider landscape, particularly the M5 motorway to the west and the large scale industrial buildings at Oldends. The landscape pattern in more rural areas is provided by large fields bounded by hedgerows. However hedgerow loss from lack of maintenance and from the amalgamation of fields to benefit more intensive agricultural production is apparent. There are no major wooded areas. Nevertheless the valley has some rural and historic elements such as the canal and its locks. The Thames and Severn Way promoted footpath route runs along the valley floor.

The area is not directly included within any landscape or townscape designation. The nationally important Cotswolds Area of Outstanding Natural Beauty (AONB) lies some distance to the east of Chapmans Platt. The boundary of the Stroud Industrial Heritage Conservation Area lies immediately adjacent to the southernmost extent of the scheme at Tarmac Lane.

Downton Road to Horsetrough Roundabout

In the section of A419 Bristol Road from just west of Downton Road to Horsetrough Roundabout, in common with much of the Berkeley Vale as described in the GLCA, the landscape and settlement pattern is heavily influenced by industrial and modern development commonly found on the perimeter of the major Gloucestershire towns. This is a dominating characteristic, with the heavily trafficked road itself a major urbanising element.

However the character of the broader route corridor shares many of the other key characteristics identified in the GLCA. The road corridor runs east-west along the middle valley side of the River Frome, a tributary of the Severn, with the former Stroudwater Navigation running parallel. Large buildings (including housing) within extensive grounds, large gardens, open spaces, outdoor sports facilities and playing fields are characteristic land uses bordering the north of the route, giving an open and leafy but suburban feel. In common with the rest of the valley there are no major areas of woodland. Modern residential development to the south west of the road is visually separated from the road corridor by individual specimen trees and narrow tree belts. A broader tree belt borders the canal to the south east of the route, screening and softening large industrial buildings in the valley.

In the section from Downton Road to Horsetrough Roundabout, the AONB is much closer at hand than at Chipmans Platt. In particular to the north west of the road corridor, Doverow Hill and the Cotswolds escarpment are generally recognised as particularly important landscape features, visible from the road corridor, particularly at Horsetrough Roundabout. Views of the road from the AONB are also likely to be important but initial desktop assessment indicates that it is likely that such views would be seen in the context of the significant ribbon urban development which adjoins the route corridor linking Stonehouse and Stroud. To the south of this section of the route, the Stroud Industrial Heritage Conservation Area incorporates the Stroudwater Canal and the historic industrial sites associated with it and the River Frome. Its northern boundary broadly follows the route corridor. This is discussed in detail in the Heritage Appraisal.

3 Potential Landscape and Townscape Effects

3.1 Key Potential Effects

The baseline studies indicate that existing hedgerows and trees along the road are the key landscape elements which could be potentially affected by the scheme. Their loss could result in further urbanisation of the road and potentially open up views of the road from residential properties and other sensitive receptors. Townscape impacts potentially include additional expanses of unattractive hard surfaces, signage and other road infrastructure, all of which could adversely affect the townscape if they were extensive or were insensitively designed or located.

3.2 Detailed Landscape and Townscape Effects

Chipmans Platt

Although there would be substantial widening of the A419 carriageway on the north western approach to the roundabout, this would be contained within the existing wide grass verge and would be unlikely to affect existing woody vegetation.

Works to the south and the east of the roundabout to create a shared use cycle/pedestrian way would involve some vegetation loss, particularly to the east where a retaining structure would be required. Existing woody vegetation belts are generally of some depth so that some loss on the edges would be acceptable. Any gaps would be infilled with planting. A suitable design of the structure, such as the use of gabions filled with local rock would help blend it into the landscape and townscape. Planting of ivy or other native groundcover and climbers could also be considered in order to soften the appearance of the structure.

Adverse townscape effects would not be significant but the sensitive detailed design and siting of barriers, signage and hard landscape treatment would be required mitigation to ensure that townscape is not adversely affected. There would be positive benefits from the additional connectivity as a result of the improved cycle/pedestrian facilities. There would be no effect on the setting of the conservation area to the south.

Downton Road to Horsetrough Roundabout

Carriageway widening would cause tree loss on the south side of Bristol Road west of Downton Road. This could open up views of the main road from houses on Boakes Drive. Replacement planting should be carried out, or if there is insufficient space, offsite planting in gardens should be considered. Townscape effects would be very localised and potentially negligible although consideration of the sensitive design and siting of barriers, signage and hard landscape treatment would be required mitigation.

Carriageway widening would also cause some tree loss on the south side of Bristol Road east of the Upper Mills Industrial Estate Road. However there is substantial woodland to the south so that landscape impacts would be negligible. Replacement planting would fill in any gaps. Visual receptors include the cycle way running parallel to the south but it would be unlikely to experience adverse effects provided any breaks in visual screening were gapped-up. Again townscape effects would be negligible and careful detail design as the scheme is developed would be necessary.

On the north side of Bristol Road, east of the 'Headmaster's House in the vicinity of the tennis courts and west of Horsetrough Roundabout, construction works could affect a section of boundary hedging. Replacement planting would reduce adverse landscape effects would be to neutral over the long term.

Provided that ground levels are not greatly changed in the vicinity of the trees in the centre of Horsetrough Roundabout, carriageway realignments would not affect existing vegetation. Landscape and visual impacts would be negligible. Additional planting should be considered to further soften the roundabout, especially in views from the AONB.

Townscape effects would be very localised. However the works would involve the relocation of the horse trough which stands to the west of Horsetrough roundabout. It is advised that consultation with the parish and district councils be undertaken in determining an appropriate new site. The sensitive detailed design and siting of barriers and signage and hard landscape treatment would be required mitigation. The works associated with the scheme are not located within the Conservation Area and the small-scale nature of the works to the existing road infrastructure is not anticipated to have an impact upon its setting.

3.3 Landscape Assessment Summary Worksheet

Features	Description	Scale it matters	Rarity	Importance	Substitutability	Impact
Pattern	E-W shallow valley side, parallel hedges and woodland belts, open space	Local	Common	Low	Substitutable	Slight Adverse
Tranquillity	Busy road corridor with detracting urban influences	Local	Common	Low	Substitutable	Neutral
Cultural	Cherished views to and from AONB; valued canal heritage	Regional - National	Moderate	High	Not substitutable	Slight Adverse
Landcover	Suburban- open spaces and playing fields, woodland belts, hedgerows, modern housing, agriculture, canal	Local	Common	Low	Substitutable	Neutral
Summary of character	Suburban but leafy character surrounding busy road corridor	Local	Common	Moderate	Partly substitutable	Slight Adverse

Reference Sources

Google Mapping
Gloucestershire Landscape Character Assessment
Stonehouse Neighbourhood Development Plan - Submission Draft
MAGIC GIS
OS Mapping

Summary Assessment Score

SLIGHT ADVERSE EFFECT
This is principally because the scheme, although not very visually intrusive, could slightly impact on certain views into and across the area

Qualitative Comments

Slight loss of roadside vegetation would be the main potential adverse landscape effect but would be mitigated to a very large extent in the long term by replacement planting. Where onsite planting would not be possible (eg because of sightlines, services or lack of space) off-site planting by agreement should be considered. Planting to soften retaining structures and the design of the structures will be important. Additional enhancement planting should also be considered as part of the highway scheme in order to offset any slight adverse effects. Further assessment and mitigation should focus on any potential effects on views from the AONB and Conservation Area together with residential receptors close to the scheme.

3.4 Townscape Assessment Summary Worksheet

Townscape Features	Description	Scale it matters	Rarity	Import-ance	Substitutability	Changes in Without-scheme case	Impact
Layout	Major road cuts through the area dividing layouts. Limited connectivity.	Local	Common	Low	Substitutable	None	Neutral
Density and mix	Large grained, extensive with a variety of uses.	Local	Common	Low	Substitutable	None	Neutral
Scale	Generally extensive with open sports areas, detached housing in large grounds and modern housing which is smaller scale	Local	Common	Low	Substitutable	None	Neutral
Appearance	Built elements generally softened by the landscape.	Local	Common	Low	Substitutable	None	Slight Adverse*
Human interaction	Major road divides the area and forms a barrier to pedestrian movement	Local	Common	Low	Substitutable	None	Slight Beneficial **
Cultural	Some historical influences at a distance. Horse trough is to be relocated	Regional - National	Moderate	Low	Not Substitutable	None	Neutral
Land use	Open space, education, housing	Local	Common	Low	Substitutable	None	Neutral
Summary of character	Generally leafy and suburban/urban fringe but with some denser modern residential areas	Local	Common	Low	Generally Substitutable	None	Neutral

Reference Sources

Google Mapping
Stonehouse Neighbourhood Development Plan - Submission Draft
MAGIC GIS
OS Mapping

Summary Assessment Score

NEUTRAL
Potential slight adverse effects are balanced by improved pedestrian and cyclist access.

Qualitative Comments

*Although the scheme slightly increases the extent and influence of the highway, the impact on townscape is not significant. There may be some opportunities to reduce any slight adverse effects through detailed design and landscaping.
**The Chipmans Platt scheme aims to beneficially increase pedestrian and cyclist access by providing new footways and cycleways.

4 Mitigation

4.1 Protection and Retention of Existing Vegetation

For all junctions, the need for a comprehensive arboricultural assessment of trees close to the route corridor should be undertaken to inform the future design process. In order to avoid future maintenance and safety issues, trees to be retained close to the road should be healthy and capable of sustainable growth.

Where trees are removed as a result of construction activity, or on safety or health grounds, replacement planting should generally be carried out. Similarly areas of scrub and hedgerows should be replanted, except where there are benefits of an alternative approach (e.g. where increased screening is required or where lower growing vegetation would open up important views).

Trees, hedgerows and shrubs to be retained should be protected by suitable heavy duty fencing to prevent damage during construction. Working areas and compounds should be carefully sited so as not to impinge on existing vegetation.

4.2 Replacement and Enhancement Planting

Replacement planting should utilise locally sourced species characteristic of the local landscape and townscape, although there may also be important ecological requirements which could affect species choice. Where visual screening is important, the use of a proportion of evergreen species could also be considered.

Where there is insufficient space to accommodate a sufficient amount of planting consideration should be given to off-site planting by agreement.

Throughout the scheme the opportunities for enhancement planting or townscape improvements to offset any residual adverse effects and to provide landscape and townscape benefits should be considered.

4.3 Retaining Structures

The sensitive design of retaining structures and their softening with new planting is important in reducing adverse landscape and townscape effects.

4.4 Public Realm

The design and location of hard surfacing, signage, barriers and other road infrastructure (where practicable) should be carefully considered to reduce adverse impacts (e.g. arising from visual clutter). Townscape enhancements along the route corridor should also be considered.

The relocation and setting of the horse trough at the eponymous roundabout is likely to be of high importance locally and should be carefully considered in consultation with local stakeholders.

5 Conclusion and Recommendations

Adverse impacts on the local landscape and townscape are likely to be no more than slight adverse at worst and should be capable of being largely mitigated. However this conclusion is based on preliminary design information and data obtained from desktop study only.

It is recommended that consultation with relevant local authority landscape/townscape officers should be undertaken as soon as possible in order to verify key findings and establish if additional desktop appraisal is required.

In order to progress a detailed highway design and to develop detailed mitigation, a further site based Landscape and Townscape Appraisal should be undertaken after approval of the business case.

Stakeholder consultation in respect of the relocation of the horse trough should be carefully considered.

An arboricultural assessment of trees likely to be affected by the highway works should be undertaken and recommendations given on tree retention and protection.

Detailed landscape and townscape design proposals should be undertaken by a suitably qualified landscape architect working in collaboration with the engineering design team.

Appendix A Landscape Methodology

Landscape means more than just 'the view'. It is both the physical and cultural characteristics of the land itself (i.e. its use and management) and the way in which we perceive those characteristics. It is this mix of characteristics and perceptions that make up and contribute to landscape character and give a "sense of place".

The landscape appraisal identifies the features Pattern, Tranquillity, Cultural, and Land Cover each of which is described and assessed against the following indicators: Scale it Matters, Rarity, Importance and Substitutability. The overall Effect is assessed by combining the impacts on the landscape features. The assessment score for the effect is derived from Table 1 overleaf which gives a seven point scale based on the scheme's fit with the landscape or landform, visual amenity, loss of character, degree of mitigation and effect on policies.

Table 1

LANDSCAPE EFFECTS	
Score	**Comment**
Large beneficial (positive) effect	The scheme provides an opportunity to greatly enhance the landscape because • It greatly enhances the character (including quality and value) of the landscape • It creates an iconic high quality feature and/or series of elements • It enables a sense of place, scale and quality to be restored in an area formerly of high landscape quality
Moderate beneficial (positive) effect	The scheme provides an opportunity to enhance the landscape because: • It fits very well with the scale, landform and pattern of the landscape • There is potential, through environmental design measures, to enable the restoration of characteristics, partially lost or diminished as the result of changes resulting from intensive farming or inappropriate development • It will enable a sense of place and scale to be restored through well-designed planting and environmental design measures, that is, characteristics are enhanced through the use of local materials and species used to fit the scheme into the landscape • It enables some sense of quality to be restored or enhanced through beneficial landscaping and sensitive design in a landscape which is not of any formally recognised quality • It furthers government objectives to regenerate degraded countryside
Slight beneficial (positive) effect	The scheme: • fits well with the scale, landform and pattern of the landscape • incorporates environmental design measures to ensure they will blend in well with surrounding landscape • will enable some sense of place and scale to be restored through well-designed planting and environmental design measures • maintains or enhances existing landscape character in an area which is not a designated landscape, nor vulnerable to change • avoids conflict with government policy towards protection of the countryside
Neutral effect	The scheme is well designed to: • complement the scale, landform and pattern of the landscape • incorporate environmental design measures to ensure that the scheme will blend in well with surrounding landscape characteristics and landscape elements • avoid being visually intrusive nor have an adverse effect on the current level of tranquillity of the landscape through which the scheme passes • maintain existing landscape character in an area which is not a designated landscape, that is, neither national or local high quality, nor is it vulnerable to change
Slight adverse (negative) effect	The scheme: • does not quite fit the landform and scale of the landscape • although not very visually intrusive, will impact on certain views into and across the area • cannot be completely integrated because of the nature of the scheme itself or the character of the landscape through which it passes • affects an area of recognised landscape quality • conflicts with local authority policies for protecting the local character of the countryside
Moderate adverse (negative) effect	The scheme is: • out of scale with the landscape, or at odds with the local pattern and landform • visually intrusive and will adversely impact on the landscape • not possible to fully integrate, that is, environmental design measures will not prevent the scheme from scarring the landscape in the longer term as some features of interest will be partly destroyed or their setting reduced or removed • will have an adverse impact on a landscape of recognised quality or on vulnerable and important characteristics or elements • in conflict with local and national policies to protect open land and nationally recognised countryside
Large adverse (negative) effect	The scheme is very damaging to the landscape in that it: • is at considerable variance with the landform, scale and pattern of the landscape • is visually intrusive and would disrupt fine and valued views of the area • is likely to degrade, diminish or even destroy the integrity of a range of characteristics and elements and their setting • will be substantially damaging to a high quality or highly vulnerable landscape, causing it to change and be considerably diminished in quality • cannot be adequately integrated • is in serious conflict with government policy for the protection of nationally recognised countryside

Definitions of the features which combine to define landscape are as follows:

• Pattern - this is the expression of the relationship between topography and form, elevation and the degree of enclosure and scale. For example: "this landscape is characterised by a small scale pattern of fields within an enclosed, narrow upland valley".

• Tranquillity - this term means the remoteness and sense of isolation, or lack of it, within the landscape. This can be affected and often determined by noise levels and visual amenity resulting from the absence of built development and intrusion from traffic.

• Cultural - this term covers the descriptions of how landscape elements of an historic or traditional nature contribute to landscape character. These include, for example, built forms and architectural styles, settlement patterns, commons, field patterns, archaeological remains, notable and cherished views and those with strong local, cultural, associations.

• Landcover - it is essential to describe how the way in which the land is farmed or managed contributes to the character of the landscape. The pattern and texture of any landscape will vary greatly depending on whether, for example, arable farming dominates over pastoral or vice versa. The structural diversity provided by the presence of trees and woods is also recorded here.

• Summary of character - this summarises and pulls together the relationship between the primary features of the key landscape environmental resource being appraised. An overview of the visual amenity of the landscape is also be provided here.

The appraisal of landscape environmental capital is addressed by four landscape indicators; Scale it matters, Rarity, Importance, Substitutability, and Impact. Each feature is assessed using the sequence of indicators to enable a meaningful and accurate impact appraisal to be made. In making these assessments, account is taken of how features may change over time in the absence of the scheme. Definitions for each of the landscape indicators are given below.

• Scale it matters - This is about the geographical scale at which the feature matters to both policy makers at all levels and to the local stakeholders. The scale at which features matter will not necessarily be on the same scale as the feature itself. For example, views across a large scale continuous landscape may matter only for local aesthetic and recreational reasons, albeit to a large number of local communities. Conversely a single, prominent, landmark and historical element in the landscape, Glastonbury Tor, for example, will matter at a national scale.

• Rarity - is interpreted as to whether the landscape features being evaluated prior to impact appraisal are commonplace to the locality or scarce. Rarity often relates directly to importance. For example, lowland heathland may be a commonplace landcover feature of the local landscape at the scheme level but it has high importance and matters at a national scale. Conversely, a small-scale pattern of fields bounded by hedgerows could make an important contribution to landscape character locally, and thus be relatively rare within the landscape at the scheme level, but will be of less than regional importance. Maintaining landscape environmental capital can be as much about safeguarding and keeping the commonplace common as conserving and protecting the rare.

• Importance - meaning, how important is this feature and at what level, for example, high, medium, or low and at national/regional/local level and to whom. For example, an individual tree or group of trees may be of very high importance at the local level, both in folklore and as a landscape element framing views of the skyline, but do not figure at a regional or national level. Assessing importance is straightforward where recognised policy judgements about the importance of landscape features and elements have been made, for example, it is a recognised Area Of Outstanding Natural Beauty. These are landscapes with a full range of particular qualities and characteristics which make them worthy of national designation. However, it must be recognised that the majority of the country comprises undesignated landscapes, which can also be of high quality and of great importance. Assessing importance in these cases will, out of necessity, be both a matter for professional judgement and public perception. The subjectivity of assessing importance is an integral part of environmental management 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 - addresses whether landscape features and their constituent elements are replaceable or not within a given time frame, normally a nominal 100 years. Some elements, however, such as mature trees, would take considerably longer to replace. It may be impossible to replace a rare feature or element within the locality within any conceivable time frame – no other suitable site for lowland heath, for example. Conversely, landscape pattern might be replicated locally through the creation of new hedgerows within 10 to 15 years. Cultural landscapes are intrinsically irreplaceable, although some features of these landscapes are more significant than others and some attributes may be replaceable. The period required for substitution must be considered in relation to the time required for the construction and operational phases of any scheme and the maturation of landscape mitigation measures. Substitution should be interpreted as the replacement of features lost with an acceptable and appropriate substitute, that is, something that provides the same benefits. In the case of landscape the feasibility of substitution of features should be considered on a site-specific basis, that is, is there suitable land available locally to recreate the features being lost or affected.

Appraising the scheme's Impact on the landscape, is summarised in the column headed Impact. This column should be used to systematically describe and score the potential impacts of the scheme on the landscape features. These have been succinctly described and categorised against the indicators set out above. In assessing impact, the information on Importance and Substitutability is particularly relevant. All impacts on the landscape, both adverse (damaging) and beneficial (enhancing) are identified along with their predicted magnitude. In making these assessments, account is taken of how features may change over time in the absence of the scheme. The significance of each separate impact can then be appraised and scored. Any uncertainties over any of these aspects are explained.

It is critical to the appraisal process to address how the scheme impacts on and changes:

• the character of the landscape - effects on the locally distinctive pattern of landscape elements;

• how visually intrusive the scheme could be - potential for effects upon visual amenity within the study area, including effects on key views if appropriate; and

• the tolerance of the landscape being able to accommodate further change.

Determining the overall assessment score, builds on all the information recorded using the definitions for overall impact scoring shown in the table above. To arrive at an assessment score for each key environmental resource (character area) it will be necessary to appraise the significance of each of the individual impact assessments for each landscape feature. An important pointer will be the impact assessment for "summary of landscape character" as this should best indicate how well the scheme would fit with the landscape. However, even when a scheme would fit well with the grain of the landscape, there may be an impact on particular landscape features and elements 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 integrity and visual amenity (either close up or far away) of an important and nationally significant landscape element, for example, a listed historic parkland.

The nature of the impact (after construction of the proposal and maturation of environmental design measures) for each point on the scale is set out in Table 1 above with statements reflecting the appraisal process described in this guidance. These statements are for guidance in determining impacts. For a scheme to qualify for a particular score, most of the statements relating to that score will normally apply.

The Landscape Worksheet layout is set out overleaf.

Landscape Worksheet

Features	Description	Scale it matters	Rarity	Importance	Substitutability	Impact
Pattern						
Tranquillity						
Cultural						
Landcover						
Summary of character						
Reference Sources						
Summary Assessment Score						
Qualitative Comments						

Appendix B Townscape Methodology

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.

The social characteristics of a townscape are determined by how the physical characteristics (i.e. buildings, structures and open spaces) are used and managed. For example, the character and value of a pedestrianised square in a town or city centre is very different to a square that has not been pedestrianised.

It is sometimes difficult to distinguish the boundaries between townscape and landscape and between townscape and historic environment. It is often the success of the interaction between all three that determines how well a place works. The impacts of a transport proposal on all three (landscape, townscape and historic environment) are therefore appraised, recognising the interplay where appropriate.

On the issue of the boundaries between townscape and landscape, the extent to which impacts are appraised under any one of these topics depends on the context of the scheme. The approach for townscape does not specify a minimum settlement size to which it should be applied and will depend on the nature of the scheme in question. For example, a junction improvement in a village may well result in townscape impacts.

Townscape differs from historic environment, in that it encapsulates all aspects of the urban form and not just those of an historic nature. Undistinguished modern buildings, for example, with arguably little in the way of current architectural or historic character and value, may still be important in contributing to the distinctive nature of an urban area. For example, the high rise office blocks and modern apartments in London's Docklands give that area a distinctive character and value. However the underlying archaeological and historic framework may partly define and be reflected in the grain of a townscape.

This approach for appraising townscape is analogous to the methodology used for landscape. It incorporates the principles of good practice urban design.

For each townscape character area, the Townscape Appraisal Worksheet identifies the features: Layout, Density and mix, Scale, Appearance, Human interaction, Cultural and Land use, each of which is described and assessed against the following indicators: Scale it Matters, Rarity, Importance, Substitutability and Baseline changes. The impact is recorded in the final column. The assessment score is derived from Table 1 below which gives a seven point scale based on the proposal's fit with the features of the townscape, visual impact, loss of character, degree of mitigation and effect on policies.

Table 1

TOWNSCAPE EFFECTS	
Score	**Comment**
Large beneficial (positive) effect	The scheme provides an opportunity to enhance the townscape because: • it enhances the layout, mix, scale, appearance, human interaction and cultural aspects of the townscape; • it enables the restoration of the characteristic features of the townscape, partially lost or diminished as the result of changes resulting from inappropriate development • 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 • it enhances the character of the townscape through beneficial and sensitive design in a townscape which is not of any formally recognised quality • it facilitates government objectives to regenerate degraded urban areas
Moderate beneficial (positive) effect	The scheme provides an opportunity to enhance the townscape because: • it fits very well with the layout, mix, scale, appearance, human interaction and cultural aspects of the townscape; • 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 • 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 • 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 • it furthers government objectives to regenerate degraded urban areas
Slight beneficial (positive) effect	The scheme: • fits well with the layout, mix, scale, appearance, human interaction and cultural aspects of the townscape; • incorporates environmental design measures for mitigation to ensure they will blend in well with surrounding townscape. • will enable some sense of place and scale to be restored through well-designed environmental design measures. • maintains or enhances existing townscape character in an area which is not designated for the quality of its townscape, nor vulnerable to change. • avoids conflict with government policy of enhancing urban environments
Neutral effect	The scheme are well designed to: • complement the layout, mix, scale, appearance, human interaction and cultural aspects of the townscape; • incorporate environmental design measures to ensure that the scheme will blend in well with surrounding townscape characteristics and elements • avoids being visually intrusive nor has an adverse effect on the current level of tranquillity (where these exist) of the townscape through which the scheme passes. • 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. • avoids conflict with government policy towards enhancing urban environments
Slight adverse (negative) effect	The scheme: • does not quite fit the layout, mix, scale, appearance, human interaction and cultural aspects of the townscape • although not very visually intrusive, will impact on certain views into and across the area. • cannot be completely integrated because of the nature of the scheme itself or the character of the townscape through which it passes. • affects an area of recognised townscape quality. • conflicts with local authority policies for enhancing urban environments

TOWNSCAPE EFFECTS	
Moderate adverse (negative) effect	The scheme is: • out of scale or at odds with the layout, mix, scale, appearance, human interaction and cultural aspects of the townscape • is visually intrusive and will adversely impact on the townscape • 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. • will have an adverse impact on a townscape of recognised quality or on vulnerable and important characteristics or elements. • in conflict with local and national policies to enhance the urban environment
Large adverse (negative) effect	The scheme is very damaging to the townscape in that it: • is at considerable variance with the layout, mix, scale, appearance, human interaction and cultural aspects of the townscape. • is visually intrusive and would disrupt fine and valued views of the area. • is likely to degrade, diminish or even destroy the integrity of a range of characteristic features and elements and their setting. • will be substantially damaging to a high quality or highly vulnerable townscape, causing it to change and be considerably diminished in quality. • cannot be adequately integrated • is in serious conflict with government policy for the enhancement of the urban environment

Key townscape environmental resources are identified and described. This process is a means of systematically recording and expressing the characteristic and locally distinctive features of an area. Use is made of documents which describe an area, such as townscape appraisals, Conservation Area character appraisals, descriptions of listed buildings and Local Plan policies. This provides the baseline character against which the incremental impact of proposals on that character can be appraised. Given that townscape is a complex mix of physical features and patterns, and cultural understandings, the level of detail to which townscape character assessment and appraisal is undertaken depends very much on the purpose of the exercise and the type of townscape in question. Key townscape environmental resources should be identified, bearing in mind the need for coherence of character within each resource and distinctiveness of character between resources.

Definitions of the features which combine to define townscape are given 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. 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).

• 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.

• 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.

• 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 refers 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.

The appraisal of townscape environmental capital, appraises 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 below.

• Geographical scale - This is about 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 - should be 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 conserving and protecting the rare.

• Importance - meaning 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.

Appraising the scheme's impact on townscape, should be summarised in the column headed Impact. This column should be used to systematically describe and score 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) and beneficial (enhancing) must be identified along with their predicted magnitude. In making these assessments, account will need to be taken of baseline changes. The significance of each separate impact can then be appraised and scored. Any uncertainties over any of these aspects should be explained.

It is critical to the appraisal process to address 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.

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 each scheme on the townscape should be judged on this basis.

It may also be appropriate to consider whether further, additional mitigation measures should be considered over and above that included in the design of the scheme. This will enable new ideas for mitigation not expressed in environmental assessments to be considered to determine whether all mitigation measures proposed will be:

• beneficial and cause the scheme to enrich and enhance the character of the townscape,

or;

• essential to neutralise the impact of the scheme on the character of the townscape, or

• ineffective in reducing/minimising the impact of the scheme.

Where additional mitigation is considered, it should not be considered in determining the overall assessment score, as no commitment can be made to its implementation. However, its effect on the impacts of the scheme should be noted in the qualitative statement part of the worksheet.

In order to determine the overall assessment score for townscape, it will be necessary to evaluate the significance of each of the individual impact scores for each townscape feature. An important pointer will be the impact score for "summary of townscape character" as this should best indicate how well the proposal would fit with the townscape. However, even when a scheme would fit well with 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.

The overall impact on the townscape is summarised using the Appraisal Summary Table's standard seven point scale (Slight, Moderate or Large; Beneficial or Adverse; plus Neutral). Table 1 above gives guidance on allocating an assessment score on the seven-point scale.

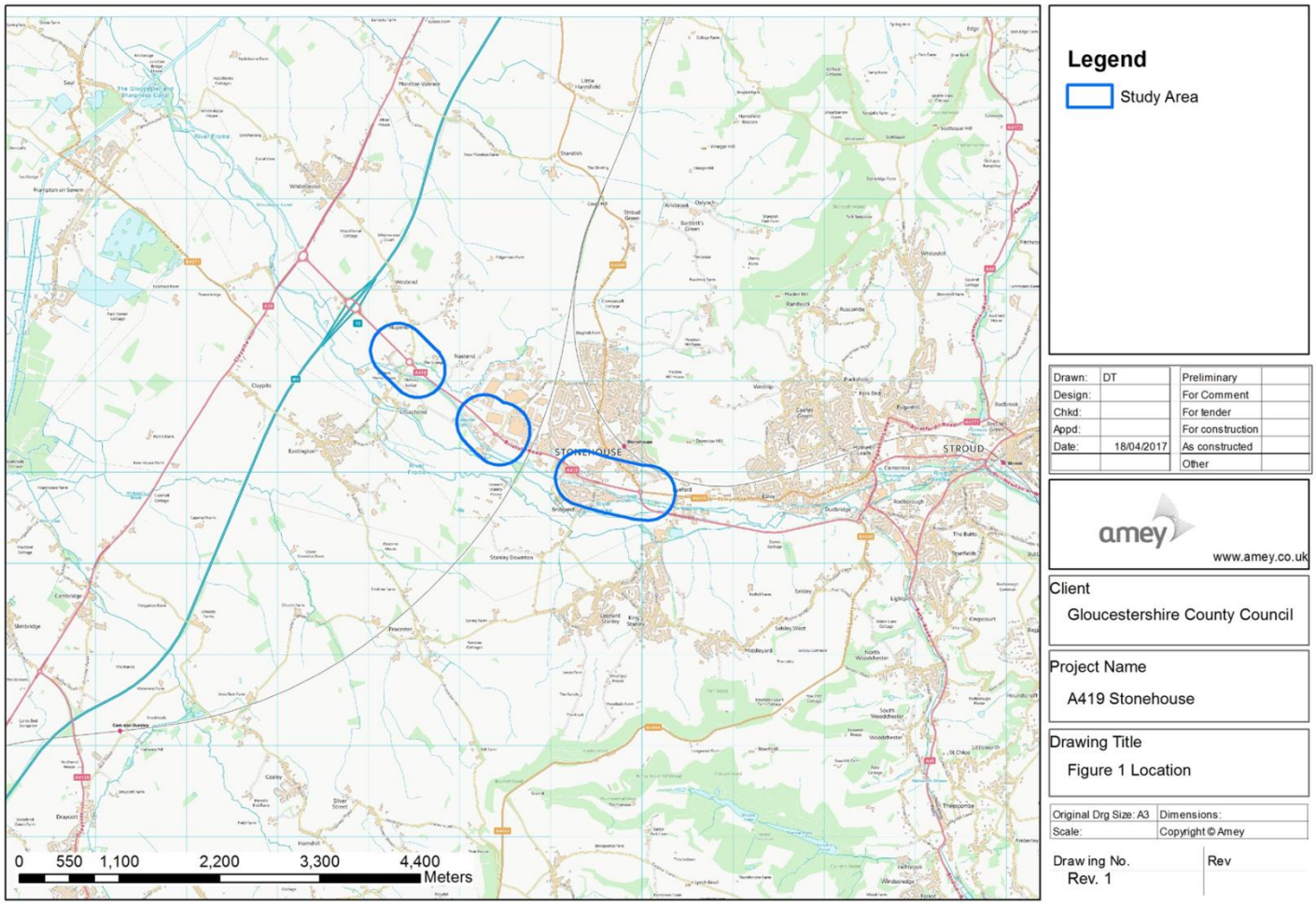
The layout of the Townscape Worksheet is shown overleaf.

Townscape Worksheet

Townscape Features	Description	Scale it matters	Rarity	Import -ance	Substitutability	Changes in Without-scheme case	Impact
Layout							
Density and mix							
Scale							
Appearance							
Human interaction							
Cultural							
Land use							
Summary of character							

Reference Sources
Summary Assessment Score
Qualitative Comments

Appendix C Figure 1: Location Plan (NTS)



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