Local Plan Viability Study

August 2013

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1. Introduction

Scope

1.1 Stroud District Council are preparing to submit their Local Plan for the period to 2031 to the Secretary of State for examination. The primary purpose of the study is to provide an assessment of the impact on viability of the policies in the emerging Stroud District Local Plan, and to ensure that the combined impact of the policies does not render development un-viable to the extent that the delivery of the Plan is prejudiced. This study will examine the viability of a suite of typical development sites that are likely to come forward over the plan period and the following specific development sites:

Table 1.1 Major Strategic Sites

Site	Details		Notes
Hunts Grove Hardwick	Units	500	Extension to the existing Hunts Grove Development. Residential scheme of greenfield site.
	Area (Gross ha)	26	
	Density (units/ha)	30	
Sharpness Dock Newton	Units	300	Major regeneration scheme of historic docks. Currently in a wide range of existing uses.
	Area (Gross ha)	8.4	
	Density (units/ha)	30	
West of Stonehouse Stonehouse	Units	1,500	Major urban extension on greenfield site of residential and employment space.
	Area (Gross ha)	90	
	Density (units/ha)	34	
North East of Cam Cam	Units	450	Major urban extension on greenfield site of residential and employment space.
	Area (Gross ha)		
	Density (units/ha)		
Stroud Valleys	Units	300	A series of smaller sites distributed through the Stroud Valleys in a number of different ownerships. Together these are of strategic importance – although each element is quite separate.
	Area (Gross ha)	N/A	
	Density (units/ha)		
Quedgeley East Harwick	Units		Employment site - Greenfield
	Area (Gross ha)	13	
	Density (units/ha)		
South of Severn Distribution Park Sharpness	Units		Employment site - Greenfield
	Area (Gross ha)	9.8	
	Density (units/ha)		

Source: Local Plan Viability Study 2013

1.2 The Stroud Valleys strategic allocation is different to the other strategic sites as it is an area of growth rather than a specific site. The Council has developed an overall strategy to bring forward the ex-industrial sites within the Stroud Valleys and is considering them together as, when combined, these sites will impact on the infrastructure requirements together. This strategic area contains a number of small sites, that are not adjacent to each other and are in different ownerships, rather than being a single, large site. To consider these, we have modelled several sites that are representative of the site typologies that make up this strategic area.

1.3 The site West of Stonehouse is not a strategic allocation. At the start of this project it was modelled as it was one of the sites considered by the Council in July 2013 as a reserve site.

1.4 In due course Stroud District Council is likely to introduce Community Infrastructure Levy (CIL) as a mechanism to fund, at least in part, the infrastructure required to support the Local Plan. The Council has commissioned a separate CIL Development Appraisal Study (Chris Marsh Associates, August 2012) but has not started the process of adopting CIL. This report builds on that study, and other viability work to understand the relationship between CIL and the Council's other policies to assist the Council in 'striking the balance' to set CIL.

1.5 Not all sites will be viable, even without any policy requirements imposed or sought by the Council and it is inevitable that the Council's requirements will render some sites unviable. Where sites are unviable and vital to the delivery of the Plan, the Council will need to consider how it can facilitate that development, and what it, as a Local Planning Authority and District Council, can do to create the environment to encourage development to come forward.

1.6 This report has been prepared following a consultation process. One event has been held and further events will be held as the process continues. On the 9th May 2013 an initial consultation event was held with a presentation to representatives from the development industry, including developers, development site landowners, housing associations, valuers and planning consultants. The meeting was used to introduce the development industry to the NPPF and CIL, to set out the methodology, test the assumptions used in the report, and to put the report in context. The event was also used to set out the early findings of the Gloucestershire Strategic Housing Market Assessment.

1.7 This piece of work is not specifically about CIL however it was felt appropriate to include CIL in the consultation process due to the close relationship between CIL and overall viability. We have set out the various comments made during the consultation process through this report, showing where changes in the methodology or assumptions have been made.

1.8 This study is concerned with development viability which is just one element of the evidence that will be used to prepare the Plan. The Council will strike the balance of achieving their strategic objectives within the practical constraints and commercial realities of delivery. We take this early opportunity to highlight the limitations of this report. We discuss the Guidance we have worked to in later chapters, we have followed the Harman Guidance. This says

'...*the viability assessment is not there to give a straightforward 'yes or no' to development across the whole plan area or whole plan period'*.

Metric or imperial

1.9 The property industry uses both imperial and metric data – often working out costings in metric (£/m^2) and values in imperial (£/acre and £/sqft). This is confusing so we have used metric measurements throughout this report. The following conversion rates may assist readers.

1m	=	3.28ft (3' and 3.37")
1ft	=	0.30m
1m^2	=	10.76 sqft (10 sqft and 110.0 sqin)
1sqft	=	0.092903 m^2

1.10 A useful rough rule of thumb to convert m^2 to sqft is simply to add a zero.

Report Structure

1.11 This report examines the viability of development across Stroud District and follows the following format:

Chapter 2 We have set out the reasons for, and approach to, viability testing, including a short review of the requirements of the NPPF and CIL Regulations.

Chapter 3 We have set out the methodology used.

Chapter 4 An assessment of the housing market, including market and affordable housing with the purpose of establishing the worth of different types of housing (size and tenure) in different areas.

Chapter 5 A very brief assessment of the key aspects of non-residential market to inform the values of the employment and mixed use schemes.

Chapter 6 An assessment of the costs of 'development' land to be used when assessing viability.

Chapter 7 We have set out the cost and general development assumptions to be used in the development appraisals.

Chapter 8 We have summarised the various policy requirements and constraints that influence the type of development that come forward.

Chapter 9 We have set out the range of modelled sites used for the financial development appraisals.

Chapter 10 The results of the development appraisals for residential and non-residential development sites.

Chapter 11 We have set out our conclusions and recommendations.

Next Steps

1.12 This report forms one of the pieces of evidence that will be used to assess whether the Local Plan is deliverable. In due course the Council will weigh up its own priorities in the context of the NPPF and other relevant matters such as the CIL Regulations and CIL Guidance and 'strike the balance' between delivering the Plan, funding infrastructure and delivering its overall priorities.

1.13 This report has been prepared following a consultation on the methodology and key inputs. The information in this report is an important element of the evidence for Local Plan examination, but is only one part of the evidence; the wider context and other existing evidence must also be considered.

2. Viability Testing

2.1 Viability testing is an important part of the Development Plan making process. The requirement to assess viability forms part of the National Planning Policy Framework[1] (NPPF), is part of the Strategic Housing Land Availability Assessment (SHLAA)[2] process, and is a requirement of the CIL Regulations[3]. In each case the requirement is slightly different but all have much in common.

NPPF Viability Testing

2.2 Paragraph 182 of the NPPF sets out the matters for the Inspector to consider when testing the soundness of a Development Plan. It says that the plan should be '*Effective – the plan should be deliverable over its period*…..'. There is little to be gained from a plan that just stops development, the Plan must work. To ensure this the NPPF includes the following requirements:

173. Pursuing sustainable development requires careful attention to viability and costs in plan-making and decision-taking. Plans should be deliverable. Therefore, the sites and the scale of development identified in the plan should not be subject to such a scale of obligations and policy burdens that their ability to be developed viably is threatened. To ensure viability, the costs of any requirements likely to be applied to development, such as requirements for affordable housing, standards, infrastructure contributions or other requirements should, when taking account of the normal cost of development and mitigation, provide competitive returns to a willing land owner and willing developer to enable the development to be deliverable.

174. Local planning authorities should set out their policy on local standards in the Local Plan, including requirements for affordable housing. They should assess the likely cumulative impacts on development in their area of all existing and proposed local standards, supplementary planning

[1] The NPPF was published on 27th March 2012 and the policies within it apply with immediate effect.

[2] SHLAA Practice Guidance DCLG 2007

[3] SI 2010 No. 948. COMMUNITY INFRASTRUCTURE LEVY, ENGLAND AND WALES, The Community Infrastructure Levy Regulations 2010 *Made 23rd March 2010, Coming into force 6th April 2010*

SI 2011 No. 987. COMMUNITY INFRASTRUCTURE LEVY, ENGLAND AND WALES, The Community Infrastructure Levy (Amendment) Regulations 2011 *Made 28th March 2011, Coming into force 6th April 2010*

SI 2011 No. 2918. CONTRACTING OUT, ENGLAND AND WALES, The Local Authorities (Contracting Out of Community Infrastructure Levy Functions) Order 2011. *Made 6th December 2011, Coming into force 7th December 2011*

SI 2012 No. 2975. COMMUNITY INFRASTRUCTURE LEVY, ENGLAND AND WALES, The Community Infrastructure Levy (Amendment) Regulations 2012. *Made 28th November 2012, Coming into force 29th November 2012*

SI 2013 No. 982. COMMUNITY INFRASTRUCTURE LEVY, ENGLAND AND WALES, The Community Infrastructure Levy (Amendment) Regulations 2013. *Made 24th April 2013, Coming into force 25th April 2013* *documents and policies that support the development plan, when added to nationally required standards. In order to be appropriate, the cumulative impact of these standards and policies should not put implementation of the plan at serious risk, and should facilitate development throughout the economic cycle. Evidence supporting the assessment should be proportionate, using only appropriate available evidence.*

2.3 The duty to test in the NPPF is a 'broad brush' one, saying 'plans should be deliverable'. It is not a requirement that every site should be able to bear all of the local authority's requirements – indeed there will be some sites that are unviable even with no requirements imposed on them by the local authority. The typical site should be able to bear whatever target or requirement is set and the Council should be able show, with a reasonable degree of confidence, that the Plan is deliverable.

2.4 Some sites within the area will not be viable. In these cases developers have scope to make specific submissions at the planning applications stage; similarly some sites will be able to bear considerably more than the policy requirements.

2.5 This study will specifically examine the development viability of the site types that are most likely to come forward over the plan period (based on those in the SHLAA) and the strategic land allocations.

CIL Economic Viability Assessment

2.6 Whilst this study is not specifically about setting CIL, it is not possible to consider the deliverability of the Local Plan without considering how the infrastructure required to support the new development planned will be funded. It is inevitable that CIL will have a role in this. The viability testing under CIL is different to the NPPF. CIL, once introduced, is mandatory on all developments (with a very few exceptions) that fall within the categories and areas where the levy applies. This is unlike other policy requirements to provide affordable housing or to build to a particular environmental standard over which there can be negotiations. This means that CIL must not prejudice the viability of most sites.

2.7 In March 2010 CLG published *Community Infrastructure Levy Guidance, Charge setting and charging schedule procedures* to support the CIL Regulations. This has now been replaced by Community Infrastructure Levy, Guidance (April 2013)[4]. This Guidance requires each Authority to publish a 'Charging Schedule'. The Charging Schedule will sit within the Local Development Framework; however, it will not form part of the statutory Development Plan nor will it require inclusion within a Local Development Scheme.

[4] The Community Infrastructure Levy, Guidance issued in December 2012 has also been superseded by the April 2013 Guidance.

2.8 Regulation 14 of the CIL Regulations says:

'councils must aim to strike what appears to the charging authority to be an appropriate balance between (a) the desirability of funding from CIL (in whole or in part) the actual and expected estimated total cost of infrastructure required to support the development of its area, taking into account other actual and expected sources of funding; and (b) the potential effects (taken as a whole) of the imposition of CIL on the economic viability'.

2.9 Viability testing in the context of CIL will assess the '*effects*' on development viability of the imposition of CIL – it should be noted that whilst the financial impact of introducing CIL is an important factor, the provision of infrastructure (or lack of it) will also have an impact on the ability of the Council to meet its objectives through development and deliver its Development Plan. The plan may not be deliverable in the absence of CIL.

2.10 Regulation 13 of the CIL Regulations says:

A charging authority may set differential rates - (a) for different zones in which development would be situated; (b) by reference to different intended uses of development…

2.11 The CIL Guidance makes it quite clear that differential rates of CIL can be set by different areas and for different uses but these differential rates can only be set with regard to viability (CIL Guidance, paragraphs 34 to 41).

2.12 On preparing the evidence base on economic viability the CIL Guidance says:

25. The legislation (section 211 (7A)) requires a charging authority to use 'appropriate <u>available</u> evidence' to inform their draft charging schedule. It is recognised that the available data is unlikely to be fully comprehensive or exhaustive. Charging authorities need to demonstrate that their proposed CIL rate or rates are informed by 'appropriate available' evidence and consistent with that evidence across their area as a whole.

2.13 This study has drawn on the existing available evidence, including the Gloucestershire and Districts Affordable Housing Site Viability Study (Fordham Research 2009) and he Community Infrastructure Levy Development Appraisal (Chris Marsh Associates, 2012), the SHLAA and site specific appraisals.

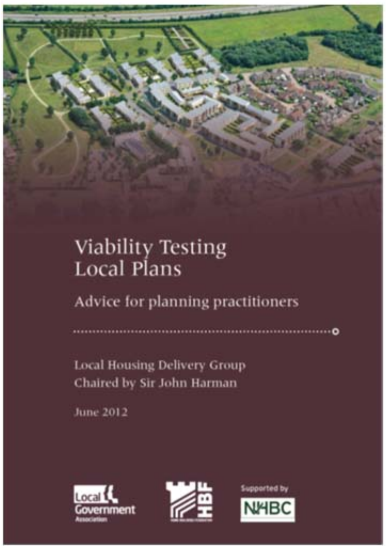
2.14 In due course this study will form one part of the evidence that the Council will use to assess the deliverability of the Plan and the impact of its policies. The Council will also consider other 'existing available evidence', the comments of stakeholders and wider priorities. The NPPF and the Harman Guidance as referred to below recommends that the development and consideration of a CIL rate should be undertaken as part of the same process. The rates of CIL are considered, although CIL will be taken forward by the Council separately to the Local Plan.

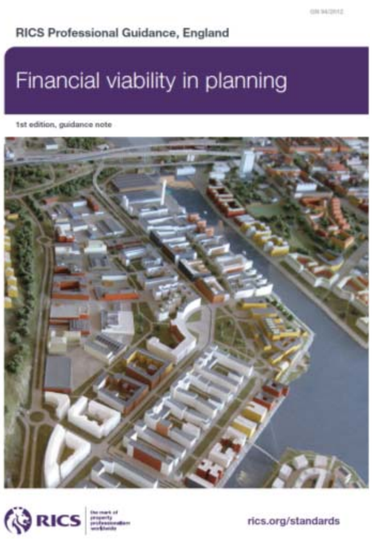
Relevant Guidance

2.15 There are several sources of guidance and appeal decisions[5] that support the methodology we have developed. In this study we have followed the guidance in *Viability Testing in Local Plans – Advice for planning practitioners*, (LGA/HBF – Sir John Harman) June 2012[6] (known as the Harman Guidance). This contains the following definition:

An individual development can be said to be viable if, after taking account of all costs, including central and local government policy and regulatory costs and the cost and availability of development finance, the scheme provides a competitive return to the developer to ensure that development takes place and generates a land value sufficient to persuade the land owner to sell the land for the development proposed. If these conditions are not met, a scheme will not be delivered.

2.16 The planning appeal decisions and the Harman Guidance suggest that the most appropriate test of viability for planning policy purposes is to consider the Residual Value of schemes compared with the existing use value, plus a premium. There are several alternative and complimentary sources of guidance including *Financial viability in planning*, RICS guidance note, 1st edition (GN 94/2012) August 2012 (known as the RICS Guidance). Additionally, the Planning Advisory Service (PAS)[7] provide viability guidance and manuals for local authorities.





[5] Barnet: APP/Q5300/A/07/2043798/NWF, Bristol: APP/P0119/A/08/2069226, Beckenham: APP/G5180/A/08/2084559, Woodstock: APP/D3125/A/09/2104658, Shinfield APP/X0360/A/12/2179141

[6] Viability Testing in Local Plans has been endorsed by the Local Government Association and forms the basis of advice given by the, CLG funded, Planning Advisory Service (PAS).

[7] PAS is funded directly by DCLG to provide consultancy and peer support, learning events and online resources to help local authorities understand and respond to planning reform. (Note: Some of the most recent advice has been co-authored by HDH).

2.17 There is considerable common ground between the RICS and the Harman Guidance but they are not consistent. The RICS Guidance recommends against 'current/alternative use value plus a margin' – which is the methodology recommended in the Harman Guidance.

One approach has been to exclusively adopt current use value (CUV) plus a margin or a variant of this, i.e. existing use value (EUV) plus a premium. The problem with this singular approach is that it does not reflect the workings of the market as land is not released at CUV or CUV plus a margin (EUV plus)…..

(Financial viability in planning, RICS guidance note, 1st edition (GN 94/2012) during August 2012)

2.18 The Harman Guidance advocates an approach based on Threshold Land Value. Viability Testing in Local Plans says:

Consideration of an appropriate ***Threshold Land Value*** *needs to take account of the fact that future plan policy requirements will have an impact on land values and landowner expectations. Therefore, using a market value approach as the starting point carries the risk of building-in assumptions of current policy costs rather than helping to inform the potential for future policy. Reference to market values can still provide a useful 'sense check' on the threshold values that are being used in the model (making use of cost-effective sources of local information), but it is not recommended that these are used as the basis for the input to a model.*

We recommend that the Threshold Land Value is based on a premium over current use values and credible alternative use values (noting the exceptions below).

(Viability Testing in Local Plans – Advice for planning practitioners. (LGA/HBF – Sir John Harman) June 2012)

2.19 The RICS dismisses a Threshold Land Value approach as follows.

Threshold land value*. A term developed by the Homes and Communities Agency (HCA) being essentially a land value at or above that which it is assumed a landowner would be prepared to sell. It is not a recognised valuation definition or approach.*

2.20 On face value these statements appear contradictory. In order to avoid later disputes and delays, the approach taken in this study brings these two sources of guidance together. The methodology adopted is to compare the Residual Value generated by the viability appraisals, with the existing use value (EUV) or an alternative use value (AUV) plus an appropriate uplift to incentivise a landowner to sell. The amount of the uplift over and above the existing use value is central to the assessment of viability. It must be set at a level to provide 'competitive returns'[8] to the landowner. To inform the judgement as to whether the uplift is set at the appropriate level we make reference to the market value of the land both with and without the benefit of planning.

[8] As required by 173 of the NPPF

2.21 This approach is in line with that recommended in the Harman Guidance (as endorsed by LGA, PAS) – but also broadly in line with the main thrust of the RICS Guidance of having reference to market value. It is relevant to note that the Harman methodology was endorsed by the Planning Inspector who approved the London Mayoral CIL Charging Schedule in January 2012[9]. In his report, the London Inspector dismissed the theory that using historical market value (i.e. as proposed by the RICS) to assess the value of land was a more appropriate methodology than using 'EUV plus' a margin.

Limitations of viability testing in the context of CIL and the NPPF

2.22 The high level and broad brush viability testing that is appropriate to be used to assess the cumulative impact of policies (NPPF 173 and 174) and to set CIL (CIL Regulation 14) does have limitations. The assessment of viability is a largely quantitative process based on financial appraisals. There are types of development where viability is not at the forefront of the developer's mind and they will proceed even if a 'loss' is shown in a conventional appraisal. By way of example, an individual may want to fulfil a dream of building a house and may spend more that the finished home is actually worth, a community may extend a village hall even through the value of the facility in financial terms is not significantly enhanced or the end user of an industrial or logistics building may build a new factory or depot that will improve its operational efficiency even if, as a property development, the resulting building may not seem to be viable.

2.23 This sets the Council a challenge when considering its proposals. It needs to determine whether or not introducing policies or CIL that impact on a development type that may appear to be only marginally viable will have any material impact on the rates of development, or will the developments proceed anyway.

Viability Testing – Outline Methodology

2.24 There is no statutory guidance on how to actually go about viability testing and assess when a site is or is not viable. We have therefore followed the Harman Guidance. The availability and cost of land are matters at the core of viability for any property development. We have used the Residual Method to establish the worth of land when developed. The format of the typical valuation, which has been standard for as long as land has been traded for development, is:

[9] Paragraphs 7 to 9 of REPORT ON THE EXAMINATION OF THE DRAFT MAYORAL COMMUNITY INFRASTRUCTURE LEVY CHARGING SCHEDULE by Keith Holland BA (Hons) DipTP MRTPI ARICS an Examiner appointed by the Mayor Date: 27th January 2012

Gross Development Value
(The combined value of the complete development)

LESS

Cost of creating the asset, including a profit margin
(Construction + fees + finance charges)

=

RESIDUAL VALUE

2.25 The result of the calculation indicates a land value, the Residual Value, which is the top limit of what a bidder could offer for a site and still make a satisfactory profit margin. It is important to note that in this study we are not trying to exactly mirror any particular developer's business model – rather we are making a broad assessment of viability in the context of the NPPF.

2.26 As evidenced through the consultation process the 'likely land value' is a difficult topic since a landowner is unlikely to be entirely frank about the price that would be acceptable, always seeking a higher one. This is one of the areas where an informed assumption has to be made about the 'uplift': the margin above the 'existing use value' which would make the landowner sell.

2.27 There is no specific guidance on how to test the viability in the CIL Regulations or Guidance. Paragraph 173 of the NPPF says: '…… *To ensure viability, the costs of any requirements likely to be applied to development, such as requirements for affordable housing, standards, infrastructure contributions or other requirements should, when taking account of the normal cost of development and mitigation, provide competitive returns to a willing land owner and willing developer to enable the development to be deliverable*……' This is straightforward – although '*competitive returns'* is not defined.

The meaning of 'competitive return'

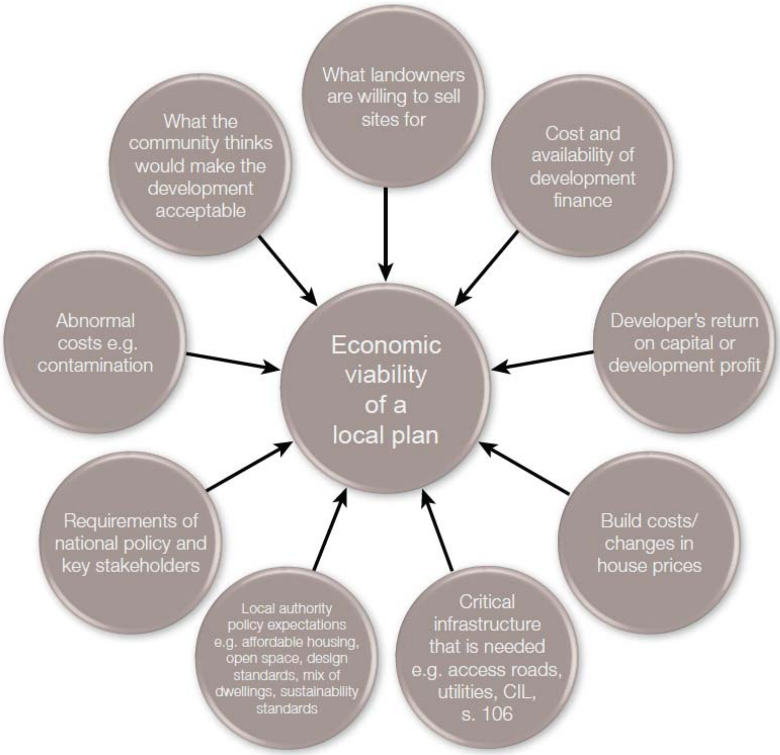
2.28 We have given considerable thought as to the meaning of '*competitive returns*' as it is at the core of a viability assessment. The RICS Guidance includes the following definition:

Competitive returns *- A term used in paragraph 173 of the NPPF and applied to 'a willing land owner and willing developer to enable development to be deliverable'. A 'Competitive Return' in the context of land and/or premises equates to the Site Value as defined by this guidance, i.e. the Market Value subject to the following assumption: that the value has regard to development plan policies and all other material planning considerations and disregards that which is contrary to the development plan. A 'Competitive Return' in the context of a developer bringing forward development should be in accordance with a 'market risk adjusted return' to the developer, as defined in this guidance, in viably delivering a project.*

2.29 Whilst this is useful it does not provide guidance as to the size of that return. To date there has been much discussion within the industry and amongst planners as to what may and may not be a competitive return, as yet the term has not been given a firm definition through the appeal, planning examination or legal processes.

2.30 Competitive return was considered at the January 2013 appeal APP/X0360/A/12/2179141 (Land at The Manor, Shinfield, Reading RG2 9BX). We have discussed this further in Chapter 6 below.

2.31 It should be noted that this study is about the economics of development. Viability brings in a wider range than just financial factors. The following graphic is taken from the Harman Guidance and illustrates some of the non-financial as well as financial factors that contribute the assessment process. Viability is an important factor in the plan making process but it is only one of many factors.



2.32 The above methodology and in particular the differences between the Harman Guidance and the RICS Guidance were presented and discussed through the consultation process. There was a universal agreement that it was appropriate to follow the Harman Guidance. Having said this, it was suggested that the modelling approach and working from averages and typical values was not appropriate, and a more detailed approach using actual values should be taken. Bearing in mind the high number of potential development sites in the SHLAA (100s) it is not practical to take a more detailed and fine grained approach that takes in all levels of the market and all site types.

Existing Available Evidence

2.33 The NPPF and the CIL Regulations are clear that, wherever possible, the assessment of viability should be based on existing available evidence rather than new evidence. We have reviewed the evidence that is available from the Council. This falls into three broad types:

a. The first is that which has been prepared by the Council to inform its Plan and in particular the Gloucestershire and Districts Affordable Housing Site Viability Study (Fordham Research 2009) and The Community Infrastructure Levy Development Appraisal (Chris Marsh Associates, 2012). Viability testing did not form part of the SHLAA process.

b. Secondly, the Council holds evidence in the form of development appraisals that have been submitted by developers in connection with specific developments – most often to support negotiations around the provision of affordable housing or s106 contributions. We have drawn on this.

c. Thirdly, the Council also holds records of past planning consents with details of the affordable housing included in projects and the contributions made under the s106 regime. This is set out in **Appendix 1**. This forms practical and real evidence of what has been delivered historically. We have considered the Council's policies for developer contributions (including affordable housing) and the amounts that have actually been collected from developers.

Stakeholder Engagement

2.34 The Harman Guidance puts considerable emphasis on stakeholder engagement – particularly with members of the development industry. In preparing this evidence document we have sought to engage with practitioners involved in the development industry.

2.35 As set out in Chapter 1, an event was held on the 9th May 2013. This was in the form of a presentation to representatives of the development industry, including developers, development site landowners, housing associations and valuers and planning consultants. The event was also used to set out the early findings of the Strategic Housing Market Assessment. The following topics were covered:

i. An introduction to viability testing in the context of the CIL Regulation 14 and paragraph 173 of the NPPF.

ii. Viability Assumptions. The methodology and main assumptions for the viability assessments were set out including development values, development costs, land prices, developers' and landowners' returns.

A lively, wide ranging and informative discussion took place. The comments of the consultees are reflected through this report and the assumptions have been adjusted where appropriate. The comments were wide ranging and there was not agreement on all points although there was a broad consensus on most matters. Where there was disagreement we have made a judgement and set out why we have made the assumptions we have used.

2.36 Following the consultation event, the main assumptions were circulated to the consultees who were invited to make written representations. It was stressed that the comments needed to be made in the context of the Harman Guidance and to be specific. Whilst general observations about the use of viability testing or the place and or fairness of CIL would be interesting; at this stage (the preparation of the viability evidence), specific observations – backed up with evidence were needed. Where specific representations were made we have re-considered the assumptions made.

2.37 It was agreed that the methodology and the main assumptions were appropriate (although a number of different and somewhat contradictory submissions were made).

2.38 **Appendix 2** includes a list of those consulted and **Appendix 3** includes the presentations from the consultation event.

3. Viability Methodology

Outline Methodology

3.1 The assessment of viability as required under the NPPF is not done through a calculation or a formula. The NPPF requires that *'the sites and the scale of development identified in the plan should not be subject to such a scale of obligations and policy burdens that their ability to be developed viably is threatened*[10]' and whether '*the cumulative impact of these standards and policies should not put implementation of the plan at serious risk*[11]'. The CIL Regulations requires '*councils must aim to strike what appears to the charging authority to be an appropriate balance between (a) the desirability of funding from CIL (in whole or in part) the actual and expected estimated total cost of infrastructure required to support the development of its area, taking into account other actual and expected sources of funding; and (b) the potential effects (taken as a whole) of the imposition of CIL on the economic viability*[12]'.

3.2 This piece of work is not a SHLAA, but it is, in part, filling a gap in the SHLAA. It is therefore useful to consider the SHLAA Guidance that says:

40. A site is considered achievable for development where there is a reasonable prospect that housing will be developed on the site at a particular point in time. This is essentially a judgement about the economic viability of a site, and the capacity of the developer to complete and sell the housing over a certain period. It will be affected by:

- ***market factors** – such as adjacent uses, economic viability of existing, proposed and alternative uses in terms of land values, attractiveness of the locality, level of potential market demand and projected rate of sales (particularly important for larger sites);*
- ***cost factors** – including site preparation costs relating to any physical constraints, any exceptional works necessary, relevant planning standards or obligations, prospect of funding or investment to address identified constraints or assist development; and*
- ***delivery factors** – including the developer's own phasing, the realistic build-out rates on larger sites (including likely earliest and latest start and completion dates), whether there is a single developer or several developers offering different housing products, and the size and capacity of the developer.*

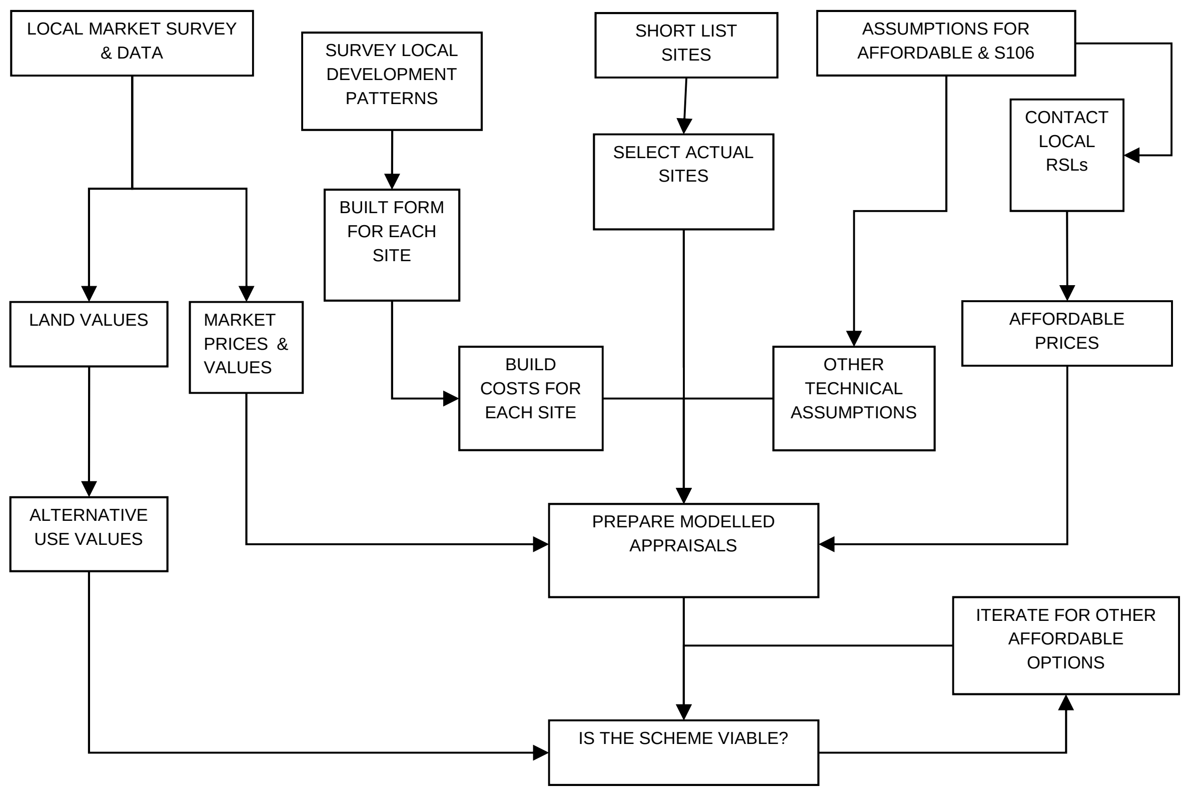
41. There are a number of residual valuation models available to help determine whether housing is an economically viable prospect for a particular site. In addition, the views of housebuilders and local property agents for example will also be useful where a more scientific approach is not considered necessary.

[10] NPPF Paragraph 173
[11] NPPF Paragraph 174
[12] CIL Regulation 14

3.3 The basic viability methodology is summarised in Figure 3.1 below. It involves preparing financial development appraisals for a representative range of sites and to assess whether sites are viable. Detail of the site modelling is set out in Chapter 9. These include a set of typical development sites modelled on those in the SHLAA and a number of large strategic and reserve sites that are crucial to the delivery of the Plan due to their size.

3.4 The sites were modelled based on discussions with Council officers, the existing available evidence supplied to us by the Council, and on our own experience of development. This process ensures that the appraisals are representative of typical development.

Figure 3.1 Viability methodology



Source: HDH 2013

3.5 The appraisals are based on the Local Plan policy requirements and for appropriate sensitivity testing of a range of scenarios including different levels of affordable housing provision and different levels of developer contributions.

3.6 We surveyed the local housing and non-residential markets, in order to obtain a picture of sales values. We also assessed land values to calibrate the appraisals and to assess alternative use values. Alongside this we considered local development patterns, in order to arrive at appropriate built form assumptions. We have also drawn on the work by Chris Marsh Associates.

3.7 These in turn informed the appropriate build cost figures. A number of other technical assumptions were required before appraisals could be produced. The appraisal results were in the form of £/ha 'Residual' land values, showing the maximum value a developer could pay for the site and still return a target profit level.

3.8 The Residual Value was compared to the alternative use value for each site. Only if the Residual Value exceeded the alternative figure, and by a satisfactory margin, could the scheme be judged to be viable.

3.9 We have used a bespoke viability testing model designed and developed by us specifically for area wide viability testing as required by the NPPF and CIL Regulation 14[13]. The purpose of the viability model and testing is not to exactly mirror any particular business model used by those companies, organisations and people involved in property development. The purpose is to capture the generality and to provide high level advice to assist the Council in assessing the deliverability of the Plan. The appraisals are based on Local Plan policy requirements and for appropriate sensitivity testing of a range of price change scenarios.

[13] The HDH viability model has is used as the basis for the Planning Advisory Service (PAS) viability training.

4. Residential Property Market

4.1 This chapter sets out an assessment of the housing market, providing the basis for the assumptions on house prices to be used in the financial appraisals for the sites tested in the study.

4.2 Although development schemes do have similarities, every scheme is unique to some degree, even schemes on neighbouring sites. Market conditions will broadly reflect a combination of national economic circumstances, and local supply and demand factors, however, even within a town there will be particular localities, and ultimately site specific factors, that generate different values and costs.

The Residential Market

4.3 The housing market across the Stroud District Council area reflects national trends, but there are local factors that underpin the market including:

i. Good transport links regular train connections to the M5 with excellent links to Bristol, Gloucester and direct trains to London.

ii. Attractive and valuable rural areas of the Cotswolds.

iii. Many attractive settlements in a range of sizes containing buildings of character and heritage.

iv. Densely developed, deep ‘Stroud Valleys’ of historic industrial development.

Stroud District’s Relationship to the UK Housing Market

4.4 The current direction and state of the housing market is unclear, and the future is uncertain. The housing market peaked late in 2007 (see the following graph) and then fell considerably in the 2007/2008 recession during what became known as the ‘Credit Crunch’.

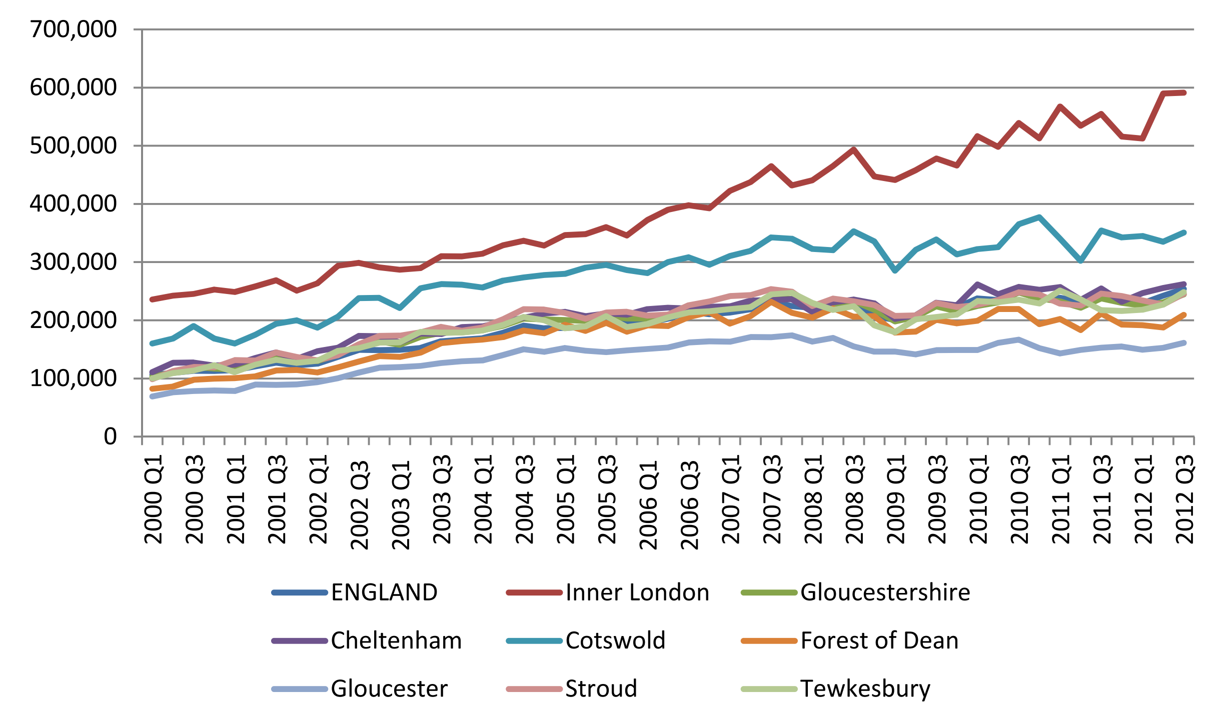
4.5 Up to the peak of the market, the long term rise in house prices had, as least in part, been enabled by the ready availability of credit to home buyers. Prior to the increase in prices, mortgages were largely funded by the banks and building societies through deposits taken from savers. During a process that became common in the 1990s, but took off in the early part of the 21st Century, many financial institutions changed their business model whereby, rather than lending money to mortgagees that they had collected through deposits, they entered into complex financial instruments and engineering through which, amongst other things, they borrowed money in the international markets, to then lend on at a margin or profit. They also ‘sold’ portfolios of mortgages that they had granted. These portfolios also became the basis of complex financial instruments (derivatives etc).

4.6 During 2007 and 2008, it became clear that some financial institutions were unsustainable, as the flow of money for them to borrow was not certain. As a result, several failed and had to be rescued by governments. This was an international problem that affected countries across the world – but most particularly in North America and Europe. The first of the major banks to fail was Lehman Brothers in America. In the UK the high profile institutions that were 'rescued' by the Government, included Royal Bank of Scotland, HBoS, Northern Rock and Bradford and Bingley. The ramifications of the recession were an immediate and significant fall in house prices, and a complete reassessment of mortgage lending with financial organisations becoming adverse to taking risks, lending only to borrowers who had the least risk of default and those with large deposits.

4.7 It is important to note that the housing market is actively supported by the current Government with about one third of mortgages being through a state backed entity or scheme (a publically controlled financial institution or assisted purchase scheme such as shared ownership). It is not known how long this will continue.

4.8 There are various commentators talking about a recovery in house prices, but generally there is limited evidence to support such a view outside the very discrete area of London and the South East. The following figure shows that generally prices in Gloucestershire have seen a recovery since the bottom of the market in mid-2009. Whilst it is difficult to pick out any trend in this, it is appropriate to take a cautious view.

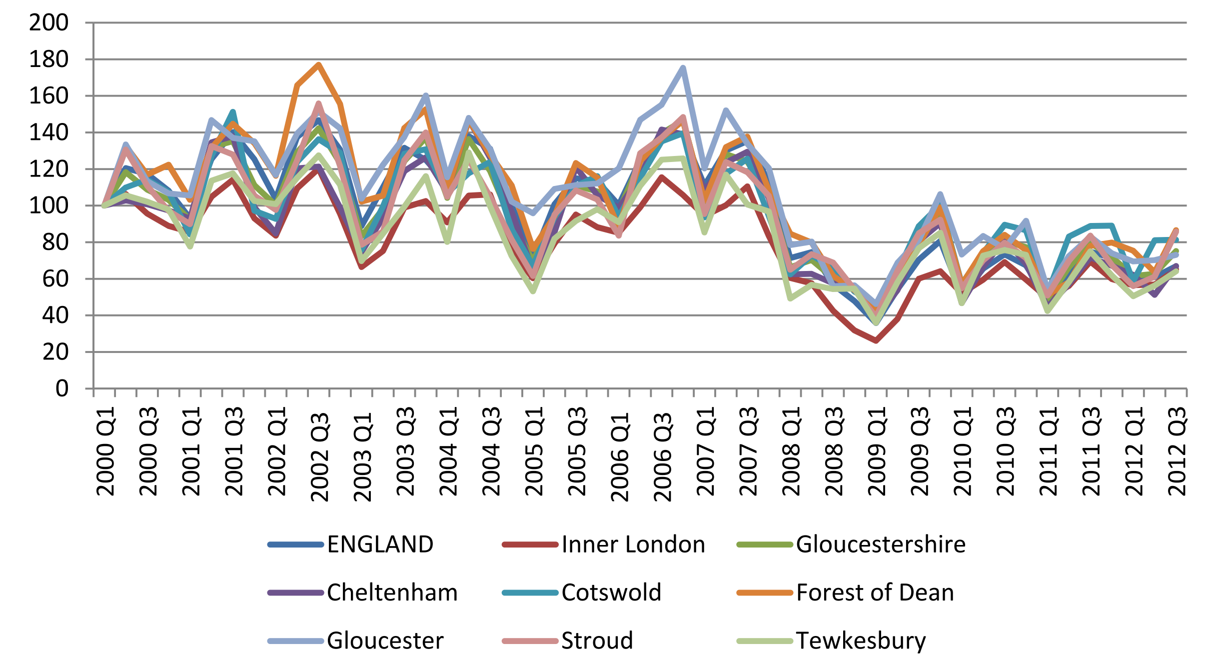
Figure 4.1 Average House Prices (£)



Source: CLG Live Table 581 April 2013

4.9 Contrary to the unclear position above, discussions with estate agents suggest that prices in most areas are now moving up and there is more confidence in the market with a return of first time buyers. It should be noted that the market remains slow with the sales per month running well below those at the peak of the market:

Figure 4.2 Sales per quarter – Indexed to Q1 2000

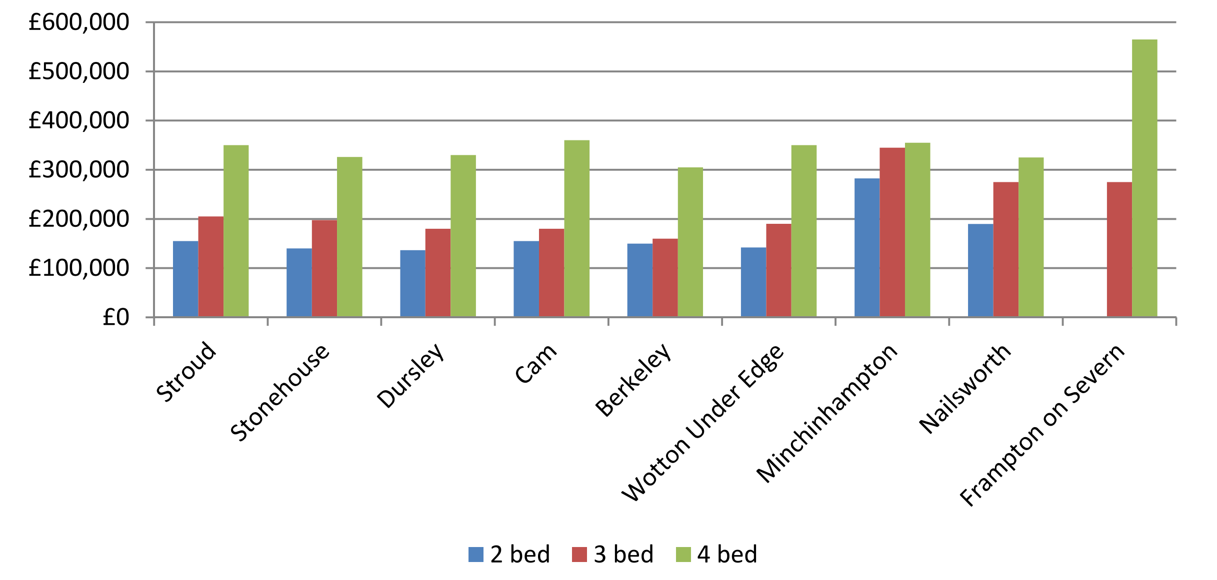


Source: CLG Live Table 584 April 2013

4.10 There is clearly uncertainty in the market, and it is not for this study to try to predict how the market may change in the coming years, and whether or not there will be a recovery in house prices. The troubles in the Euro-zone are continuing and there is no clear end to them in sight. This sets the Council a particular challenge when it comes to setting a rate of CIL that will prevail for several years. To assist the Councils to 'strike the balance' in an informed way, we have run two further sets of appraisals to show the effect of a 5% and 10% increase, and a 5% and 10% decrease in house prices.

4.11 We carried out a survey of asking prices by house size by settlement. Through using online tools such as rightmove.co.uk, zoopla.co.uk and other resources we estimated the median asking prices for the main settlements. There is some variance across the District, with the west generally having lower prices.

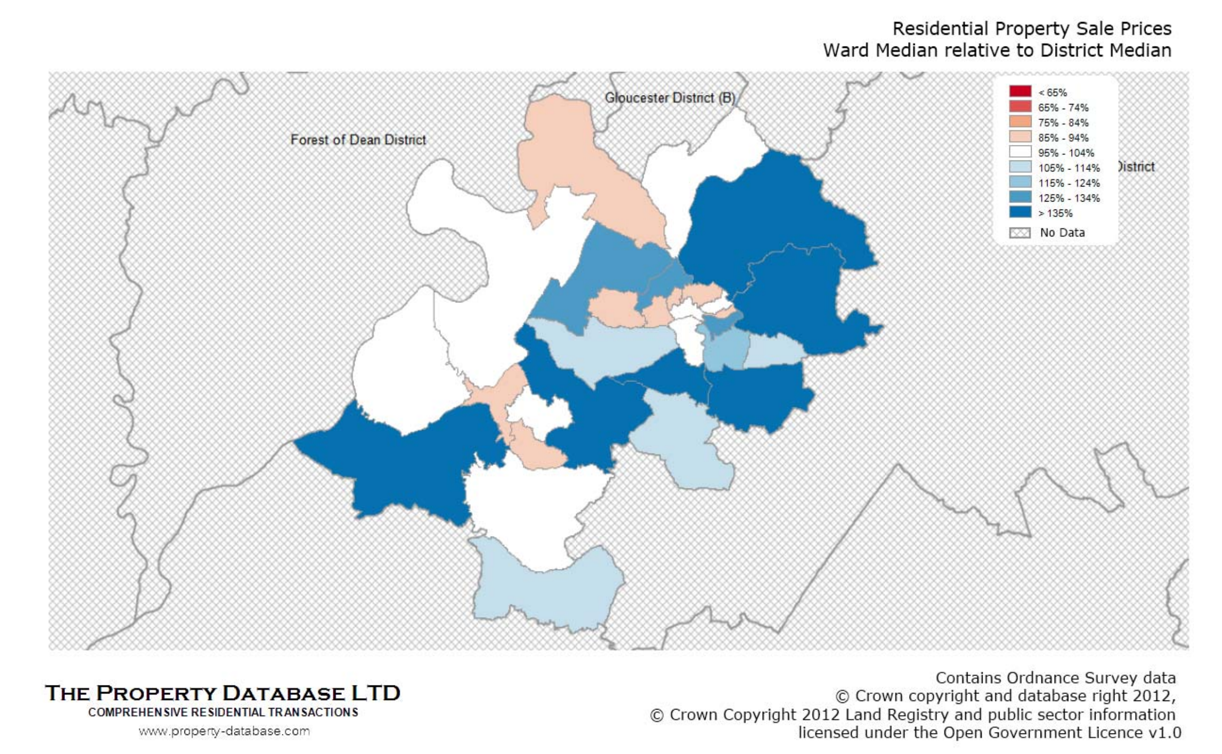
Figure 4.3 Median Asking Prices by First and Second Tier Settlement (£)



Source: Rightmove.co.uk May 2013

4.12 The geographical difference in prices in illustrated in the following map showing the average price for semi-detached homes.

Figure 4.3 Average Prices – Semi-detached



Source: Land Registry

New Build Sales Prices

4.13 The above price information is interesting but this part of this study is concerned with the viability of new build residential property so the key input for the appraisals are the prices of units on new developments. We conducted a survey of new homes for sale during April 2013. A list setting out details of relevant new developments in the area is provided below (full details in **Appendix 4**). We identified 65 or so new homes for sale in the Stroud District area, although it should be noted that many of these are being marketed before construction has started. All most all of the units being marketed were houses rather than flats. The information collected was not comprehensive as different developers and agents make different levels of information available and includes sites beyond the Council's area (due to the lack of currently available units within the area).

Table 4.1 New Build Asking Prices. Scheme Average (£/m2)

Crest Nicholson	Hunts Grove		2,214
Michael Tuck new homes		Stroud	1,989
Crest Nicholson	Hunts Grove		2,208
Perry Bishop and Chambers	Stratford Rd	Stroud	1,551
RABennett	Dursley		1,947
Barratt Homes	Ebley Rd	Stonehouse	2,244
Michael Tucker	Haresfield	Hardwicke	2,140
David Wilson Homes	Jessop Rd	Gloucester	2,094
Connells	Sanigar Lane	Newtown	2,450
Barratts	Brockworth	Gloucester	2,244
Cala Homes	Bisley Rd	Eastcombe	3,019
Hamptons International	Leonard Stanley	Stonehouse	2,537
Bennet Jones		Cam	3,259
Perry Bishop and Chambers	Barton Close	Star Hill, Nailsworth	1,989
Charles Duncan	Box	Minchinhampton	2,720
Hamptons International	The Street	Uley	2,592
Hamptons International	Painswick	Stroud	3,688

Source: Market Survey (see Appendix 4) Note that the above prices are average prices

4.14 Analysis of these and other schemes in the study area shows that <u>asking</u> prices for newbuild homes vary across the area ranging from about £2,000/m^2 to well over £3,000/m^2.

4.15 During the course of the research, we contacted agents to enquire about the price discounts and incentives available. In most cases the feedback was that the units were 'realistically priced'. When pressed, it appeared that the discounts and incentives offered equated to a 2% to 3% reduction of the asking price. It would be prudent to assume that prices achieved, net of incentives offered to buyers, are 3% less than the above asking prices.

4.16 We have compared these prices with those submitted by developers in appraisals submitted to the Council as part of the development control process and in connection with s106 negotiations and in other parts of the planning evidence base. These are summarised below:

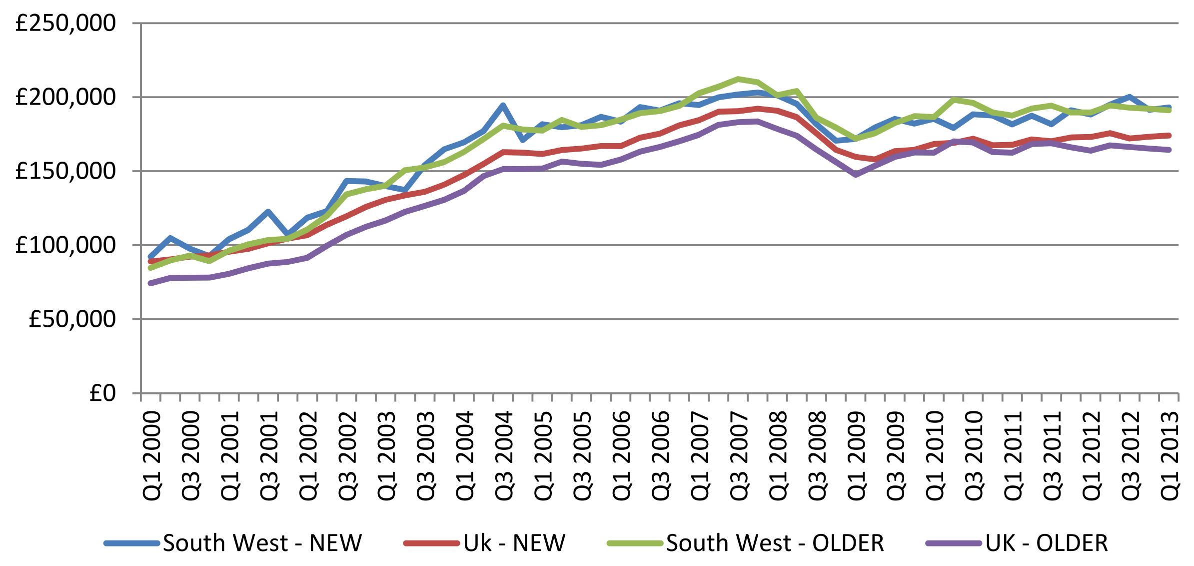
Table 4.2 Residential prices from developer appraisals

Scheme	Type	£/m2
Wotton Under Edge	14 2 and 3 bed houses and apartments	£2,465 – £2,626
Newtown	4 bed detached houses 3 bed detached	£1,860 – £1,969 £2,346 – £2,725
Yate	4 bed detached houses 3 bed detached	£1,819 – £2,034 £2,604 – £2,669 £2,432 – £2,518
Brimscombe	New build and mill conversion	£2,368
Sharpness	NE Site Marina	£2,335 £2,830

Source: Developer appraisals via SDC

4.17 The Nationwide Building Society publishes regional data relating the price of new homes. This is shown in the following figure. It was suggested through the consultation process that new house prices had not really recovered however this is not the case. It can be seen that new build prices have made a similar recovery to that of older property.

Figure 4.6 Average Newbuild House Prices



Source: Nationwide Building Society

Price Assumptions for Financial Appraisals

4.18 It is necessary to form a view about the appropriate prices for the schemes to be appraised in the study. The preceding analysis does not reveal simple clear patterns with sharp boundaries.

4.19 Based on the current asking prices from active developments, and informed by the general pattern of all house prices across the study area, we have set the prices in the appraisals based on this data. It is important to note at this stage that this is a broad brush, high level study to test the Council's policy as required by the NPPF. The values between new developments and within new developments will vary considerably.

4.20 It is clear that small schemes of large houses tend to have the highest values and that the smaller villages have a price premium. Based on the collected evidence we have used the prices set out at the end of this chapter in this high level study. This approach recognises the distinct difference between the top of the market and small developments, and the 'estate housing' that may be produced on a larger site.

4.21 It is necessary to consider whether the presence of affordable housing would have a discernible impact on sales prices. In fact, affordable housing will be present on many of the sites whose selling prices have informed our analysis. Our view is that, in any case, any impact can and should be minimised through an appropriate quality design solution.

Affordable Housing

4.22 The Council has a policy for the provision of affordable housing (the requirements are summarised in **Chapter 8**). In this study we have assumed that affordable housing is constructed by the site developer and then sold to a Registered Provider (RP) and that intermediate housing is 'sold' direct to the occupier. This is a simplification of reality as there are many ways in which affordable housing is delivered, including the transfer of free land to RPs for them to build on or the retention of the units by the schemes overall developer. There are three main types of affordable housing: Social Rent, Affordable Rent and Intermediate Housing Products for Sale. It should be noted that changes to the HCA funding regime mean that it is unlikely there will be on-going development for Social Rent in Stroud District. We consider the values of each below:

Social Rent

4.23 The value of a rented property is strongly influenced by the passing rent – although factors such as the condition and demand for the units also have a strong impact. Social Rents are set at a local level through a national formula that smooths the differences between individual properties and ensures properties of a similar type pay a similar rent:

Table 4.6 Stroud District Social Rent (£/month)		
1 Bedroom	2 Bedrooms	3+ Bedrooms
299.87	344.46	401.53

Source: The COntinuous REcording of Letting and Sales in Social Housing in England (CORE) May 2013

4.24 This study concerns only the value of newly built homes. In spite of the differences in rents there seems to be relatively little difference in the amounts paid by RPs for such units across the study area. Initially in this study we have assumed Social Rent has a value of 45% of Open Market Value (OMV). This is a simplification of the reality but appropriate in this high level study. However, in this study we have assumed that all affordable housing to rent is as Affordable Rent so have not pursued this further. There were various comments around this assumption though the consultation process. We have not pursued these as the modelling in this study is based on Affordable Rent.

Affordable Rent

4.25 Affordable Rent is a new form of affordable tenure under which the rent can be no more than 80% of the open market rent for that unit. One of the key aims of the Government's policy on affordable housing is to make the much reduced HCA budget go further. The Affordable Rent that is over and above the Social Rent will be used by Registered Providers (RPs) to raise capital funding through borrowing or securitisation. This can then be used to build more affordable units – the extra borrowing replacing the grant.

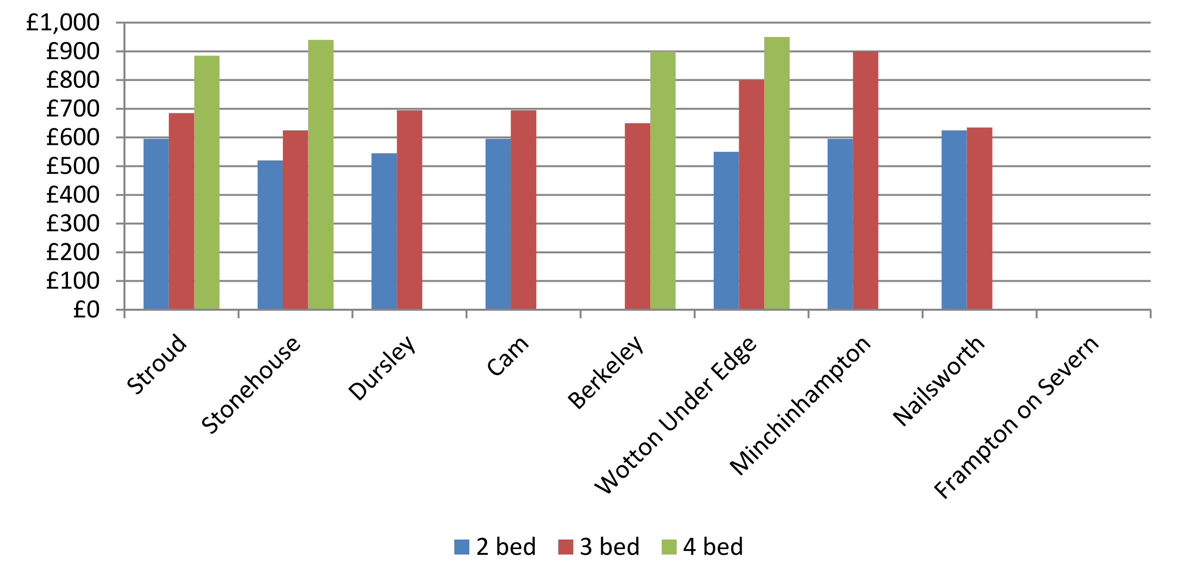
4.26 For many years, Local Planning Authorities (LPAs) have aspired to ensure that affordable housing is delivered without grant. When LPAs have negotiated with developers during the planning process, about the number and type of affordable housing to be provided through s106 agreements and planning conditions, the initial basis of those discussions has usually been that the affordable units would be made available without any grant. The reality was rather different, with the developer either transferring the serviced land for affordable housing to an RP for no cost, or an RP purchasing the completed units from the developer with grant assistance from the HCA.

4.27 The amount of grant paid by the HCA was assessed project by project depending on a site's financial characteristics and has been steadily decreasing overall over recent years. Some grant will continue to be available on high priority sites where there is still a funding gap after allowing for the higher Affordable Rent. However, as the amount is uncertain we have assumed no grant will be available in the future.

4.28 The value of affordable housing for rent is the worth of the income that the completed let unit will produce. This is the net amount an investor or another RP would pay for the completed unit and will depend on the total amount of the rent as well as the cost of managing the property (letting, voids, rent collection, repairs etc.).

4.29 We have assumed that Affordable Rent is to be set at 80% of the full open market rent of the properties in question. We have assumed that because a typical Affordable Rent unit will be new, it will command a premium rent that is a little higher than equivalent older private sector accommodation. In estimating the level of affordable rent, we have undertaken a survey of rents across the District.

Figure 4.8 Median Rents by Main Settlement – £/Month



Source: Rightmove.com (note there is no current information for Frampton)

4.30 The rents vary considerably – particularly for larger units. The rents are for unfurnished accommodation and exclude single rooms and Houses in Multiple Occupation (HMOs).

4.31 As part of the reforms to the social security system, housing benefit /local housing allowance is capped at the 3rd decile of open market rents for that property type, so in practice affordable rents are unlikely to be set above these levels. The cap is set by the Valuation Office Agency by Broad Housing Market Area (BHMA) however these BHMAs do not follow local authority boundaries. Where this is below the level of Affordable Rent at 80% of the median rent we have assumed that the Affordable Rent is set at the LHA Cap.

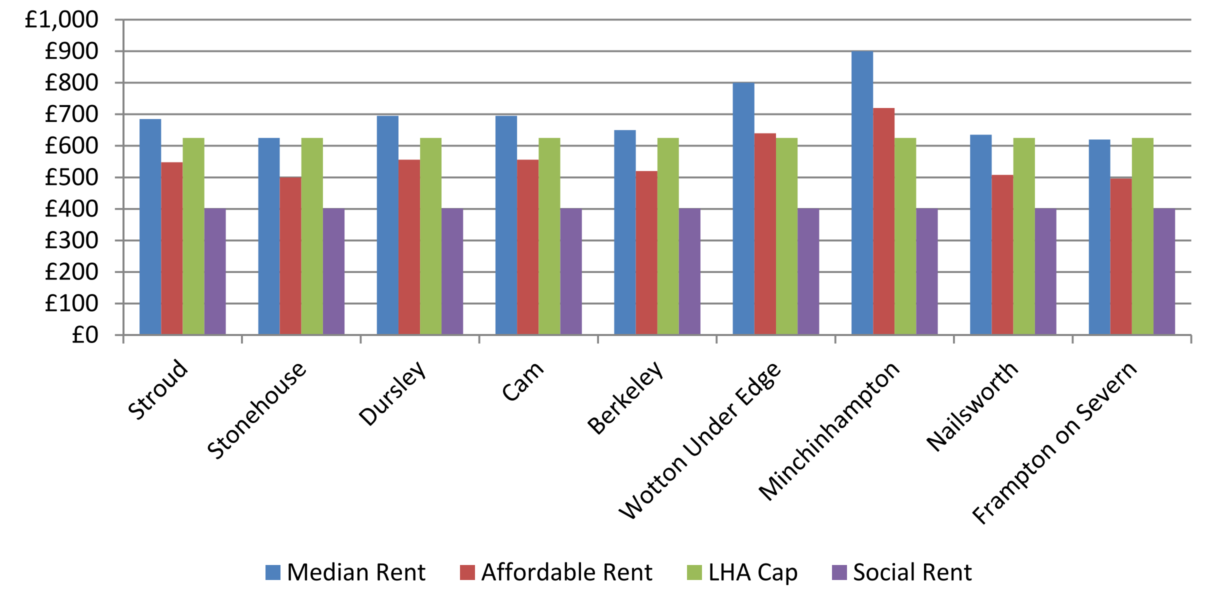
Table 4.7 Gloucester BHMA Caps

	Per week	Per month
Shared Accommodation Rate:	£64.90	£281.23
One Bedroom	£91.15	£394.98
Two Bedrooms	£121.15	£524.98
Three Bedrooms	£144.23	£625.00
Four Bedrooms	£183.46	£794.99

Source: VOA

4.32 The prevailing rents in the main settlements (i.e. where the development will take place) can be summarised as follows and form the basis of the appraisals. We have assumed that Affordable Rent will be set at 80% of the median rent or the LHA Cap whichever is lower:

Figure 4.9 Rents by Tenure for Main Settlement – £/Month



Source: Rightmove.com, VOA and CORE

4.33 As can be seen in the figure above, the LHA Cap will apply in both Wotton Under Edge and Minchinhampton.

4.34 In calculating the value of affordable rents we have allowed for 10% management costs, 4% voids and bad debts and 6% repairs, and capitalised the income at 5.5%.

Table 4.8 Calculation of value of Affordable Rent

2 Bed									
	Stroud	Stonehouse	Dursley	Cam	Berkeley	Wotton Under Edge	Minchin-hampton	Nailsworth	Frampton on Severn
Median Rent	£595	£520	£545	£595	£600	£550	£595	£625	£590
Affordable Rent	£476	£416	£436	£476	£480	£440	£476	£500	£472
LHA Cap	£525	£525	£525	£525	£525	£525	£525	£525	£525
Social Rent	£344	£344	£344	£344	£344	£344	£344	£344	£344
Gross rent	£5,712	£4,992	£5,232	£5,712	£5,760	£5,280	£5,712	£6,000	£5,664
Net Rent	£4,570	£3,994	£4,186	£4,570	£4,608	£4,224	£4,570	£4,800	£4,531
Worth	£83,084	£72,611	£76,102	£83,084	£83,782	£76,800	£83,084	£87,273	£82,385
Approximate £/m2	£1,108	£968	£1,015	£1,108	£1,117	£1,024	£1,108	£1,164	£1,098
3 Bed									
	Stroud	Stonehouse	Dursley	Cam	Berkeley	Wotton Under Edge	Minchin-hampton	Nailsworth	Frampton on Severn
Median Rent	£685	£625	£695	£695	£650	£800	£900	£635	£620
Affordable Rent	£548	£500	£556	£556	£520	£640	£720	£508	£496
LHA Cap	£625	£625	£625	£625	£625	£625	£625	£625	£625
Social Rent	£402	£402	£402	£402	£402	£402	£402	£402	£402
Gross rent	£6,576	£6,000	£6,672	£6,672	£6,240	£7,500	£7,500	£6,096	£5,952
Net Rent	£5,261	£4,800	£5,338	£5,338	£4,992	£6,000	£6,000	£4,877	£4,762
Worth	£95,651	£87,273	£97,047	£97,047	£90,764	£109,090	£109,090	£88,669	£86,575
Approximate £/m2	£1,125	£1,027	£1,142	£1,142	£1,068	£1,283	£1,283	£1,043	£1,019

Source: HDH 2013

4.35 In the Affordable Housing Site Viability Study Fordham Research assumed a price of £872/m^2 for flats and £742/m^2 for housing – however these were for Social Rent rather than affordable rent.

4.36 In the CIL Development Appraisal Study it was assumed that Affordable Rent had a value of £1,100/m^2 in all areas of the District. At the initial consultation event we suggested that this assumption was followed into this study. One consultee suggested that this was an over simplification but did not suggest any alternative methodology. We have used the figures in the tables above as the locally appropriate values of Affordable Rent.

Intermediate Products for Sale

4.37 Intermediate products for sale include shared ownership and shared equity products. The market for these is difficult at present and we have found little current evidence of the availability of such products in the study area. We have assumed that intermediate housing has a value of 70% of open market value.

4.38 It should be noted that in the CIL Development Appraisal study it was assumed a 50% share would be sold and a rent of 2.75% would be charged on the remaining portion. This was in line with the assumption used by Fordham Research in the Affordable Housing Site Viability Study (2009).

Appraisal Price Assumptions

4.39 The prices initially suggested to consultees and used in the appraisals are summarised as follows (see Chapter 9 for site details).

Table 4.8 Price Assumptions						
			Market	Intermediate to Buy	Affordable Rent	Social Rent
			£/m2	£/m2	£/m2	£/m2
1	Rural North	Upton St Leonards	2,700	1,890	1,100	1,350
2	Town Edge	Stonehouse	2,500	1,750	1,100	1,250
3	Infill	Stonehouse	2,300	1,610	1,100	1,150
4	Infill	Stonehouse	2,500	1,750	1,100	1,250
5	Town Edge	Stroud	2,600	1,820	1,100	1,300
6	Infill	Stroud	2,500	1,750	1,100	1,250
7	Infill	Stroud	2,500	1,750	1,100	1,250
8	Infill	Cam	2,400	1,680	1,100	1,200
9	Town Edge	Cam	2,750	1,925	1,100	1,375
10	Infill	Dursley	2,450	1,715	1,100	1,225
11	Rural South	Wotton Under Edge	2,800	1,960	1,100	1,400
12	Rural East	Nailsworth	2,750	1,925	1,100	1,375
13	Rural East	Minchinhampton	2,750	1,925	1,100	1,375
14	Rural West	Frampton	2,450	1,715	1,100	1,225

Source: HDH 2013

4.40 The above prices were put to the first consultation event and a variety of comments were received, both during the meeting and afterwards. It was felt that whilst these prices may be reflective of smaller schemes that have a small site ‘non-estate’ premium, they were too high, particularly for the larger strategic sites. Unfortunately no actual alternative figures were suggested, just general observations. Informed by these we have amended the prices.

4.41 There was some suggestion through the consultation process that we should base the prices on the lowest part of the property cycle. We recognise the concern that economic downturn continues but based on the Harman Guidance, we have worked from current prices in this study. In Chapter 10 we have set out the results of our analysis. This includes the testing effect of various price and costs changes.

4.42 There was criticism of the use of average prices and the suggestion was made that actual specific prices should be used. Actual prices have informed this study but this is a high level study that is based on modelling typical sites that are likely to come forward over the plan period. It is necessary to make a series of high level and broad brush assumptions that are broadly representative, the alternative being the impractical alternative of testing every site in the SHLAA. In the absence of a practical alternative we have continued to use average prices.

4.43 Following the first consultation event the price assumptions used in the appraisals were adjusted as follows:

Table 4.9 Price Assumptions					
			Market	Intermediate to Buy	Affordable Rent
			£/m2	£/m2	£/m2
1	Rural North	Upton St Leonards	2,450	1,715	1,100
2	Town Edge	Stonehouse	2,300	1,610	998
3	Infill	Stonehouse	2,250	1,575	998
4	Infill	Stonehouse	2,300	1,610	998
5	Town Edge	Stroud	2,600	1,820	1,117
6	Infill	Stroud	2,100	1,470	1,117
7	Infill	Stroud	2,400	1,680	1,117
8	Infill	Cam	2,000	1,400	1,125
9	Town Edge	Cam	2,450	1,715	1,125
10	Infill	Dursley	2,150	1,505	1,078
11	Rural South	Wotton Under Edge	2,600	1,820	1,153
12	Rural East	Nailsworth	2,600	1,820	1,103
13	Rural East	Minchinhampton	2,600	1,820	1,195
14	Rural West	Frampton	2,300	1,610	1,117
15*	Urban Infill 6	Stroud	2,150	1,505	1,117
16*	Urban Infill 7	Trupp	2,150	1,505	1,117
HG	Hunts Grove	Hardwick	2,250	1,575	1,100
SH	West of Stonehouse	Stonehouse	2,200	1,540	998
C	NE Cam	Cam	2,300	1,610	1,125

Source: HDH 2013 * Note: Sites 15 and 16 are within the Stroud Valleys

5. Non-Residential Property Market

5.1 This chapter sets out a brief assessment of the market for non-residential property, providing a basis for the assumptions of prices to be used in financial appraisals for the sites tested in the study.

5.2 The NFFP and CIL Regulations require the use of existing available evidence and for the viability testing to be appropriate to the likelihood of raising CIL. There is no need to consider all types of development in all situations – and certainly no point in testing the types of scheme that are unlikely to come forward – or for that matter those unlikely to be viable. We have drawn on the CIL Development Appraisal Study and appraisals submitted by developers.

5.3 Although development schemes do have similarities, every scheme is unique to some degree, even schemes on neighbouring sites. Market conditions will broadly reflect a combination of national economic circumstances and local supply and demand factors, however even within a town there will be particular localities, and ultimately site specific factors, that generate different values and costs.

5.4 As with the housing market, the various non-residential markets the District reflect national trends, but there are local factors that underpin the market. Stroud is the major employment and service centre – however employment uses are spread through the District.

5.5 Commercial activity does of course take place more widely that this – indeed the majority of the area (by land use) is actively and commercially farmed. There is, however, little evidence of significant non-residential development happening much beyond these main centres (in part due to the Council's development control policies) and even in these centres it is limited at the moment.

5.6 We had expected to find a number of distinct market areas that broadly correspond to the different price areas that we found in relation to residential property. There is evidence that there are variances in the market with a reduction in rents and values as one moves away from the M5 Motorway. Having said this, and bearing in mind that this study is concerned with new property that is likely to be purpose built, we found little variance for newer premises more suited to modern business. A notable exception to this is the Stonehouse Business Park that lies to the west of Stonehouse, to the south of the A491. There was anecdotal evidence from consultees that this scheme achieved rents and values substantially higher than elsewhere, in part due to the limited supply of good development land and the slow rates of delivery.

5.7 The overwhelming characteristic of the commercial property market is that very little is happening and little development is being completed at the moment – and that which is, is for identified end users rather than being carried out speculatively by developers.

Existing Available Evidence

5.8 The CIL Development Appraisal Study (Chris Marsh Associates 2012) included an analysis of the non-residential markets and worked from the following values:

Office Rents £95/m^2 to £105/m^2

Industrial Rents £55/m^2 to £85/m^2

5.9 We have reviewed the only relevant appraisal submitted by developers through the development management and other planning processes. These are based on the following values:

Sharpness	Industrial	£65/m^2/year	7.5%	£867/m^2

Market Survey

5.10 We analysed various sources of market information including the Estates Gazette's EGI database and units currently available for sale and to let. Over 80% of the commercial property that we identified as being available was for rent rather than for sale. **Appendix 5** includes a schedule of commercial space that is currently being advertised through EGI Property Link (a commercial equivalent to Rightmove.com) in and close to the area. Clearly much of this commercial space is 'second-hand' and not of the configuration, type and condition of new space that may come forward in the future, so is likely to command a lower rent than new property in a convenient well accessed location, with car parking, that is well suited to the modern business environment.

5.11 There is a very great variance in the levels of rents and values. We have used the following rents in reaching our views about commercial capital values:

Table 5.1 Typical rents £/m^2/year	
Industrial	£27 - £52
Office	£86 - £189
Large retail - Food	£180
Large retail - Non food	£100
Small retail (Shop)	£100 - £200

Source: Market Survey 2013

5.12 Through analyses of the available rental space and the space for sale we have formed a view as to the capital value of industrial and office space. In capitalising the rents we have assumed the yields shown below. We acknowledge that the yield will vary from property to property and will depend on the terms of the lease and the standing of the tenant, however, we believe that this is a fair figure across the market.

Table 5.2 Capitalised rents £/m^2			
	Rent	Yield	**Worth**
Industrial	80	7.00%	**1,143**
Office	130	7.00%	**1,857**
Large retail - Food	180	5.50%	**3,273**
Large retail - Non food	130	6.00%	**2,167**
Small retail (Shop)	200	11.00%	**1,818**

Source: HDH 2013

Retirement Housing and Care Homes

5.13 We have not modelled retirement homes as that is beyond the scope of our instructions. We have received representations from the Retirement Housing Group (RHG) being a trade group representing developers and operators of retirement, care and extra care homes, we have included these for completeness. They have set out a case that these products should be tested separately.

5.14 In line with the RHG representations we have assumed the price of a 1 bed sheltered property is about 75% of price of existing 3 bed semi-detached house and a 2 bed sheltered property is about equal to the price of existing 3 bed semi-detached house. In addition we have assumed Extracare housing is 25% more expensive than sheltered.

5.15 In the wider Stroud District the median price of a 3 bed semi-detached home is a little over £280,000[14] however in the towns where such development is more likely to come forward it is rather lower at around £230,000 – we have used this as a starting point. On this basis we have assumed retirement housing has the following worth:

Table 5.3 Worth of Retirement and Extracare			
	Area	£	£/m2
3 bed semi-detached		230,000	
I bed Sheltered	50	172,500	3,450
2 bed Sheltered	75	230,000	3,067
1 bed Extracare	65	215,625	3,317
2 bed Extracare	80	287,500	3,594

Source: HDH 2013

[14] Rightmove May 2013.

5.16 The above prices are applied to the net saleable areas.

Appraisal Assumptions

5.17 Inevitably the data in the tables above does not match perfectly with the asking prices of properties in the market. We have therefore used the following figures in our appraisals.

Table 5.1 Non- Residential Values £/m^2	
Industrial	£800
Office	£1,700
Supermarket	£3,200
Retail Warehouse	£2,000
Shop	£2,000
Sheltered Housing	£3,200
Extra Care	£3,400

Source: HDH 2013

6. Land Prices

6.1 In the section headed Viability Testing in Chapter 2 we set out the methodology used in this study to assess viability and set out the different approaches put forward in *Viability Testing in Local Plans – Advice for planning practitioners*, (LGA/HBF – Sir John Harman) (June 2012) and *Financial viability in planning, RICS guidance note, 1st edition (GN 94/2012)* (August 2012).

6.2 An important element of the assessment, under both sets of guidance, is the value of the land. Under the method recommended in the Harman Guidance, the worth of the land before consideration of any increase in value, from a use that may be permitted though a planning consent, being the Existing Land Value (ELV) or Alternative Land Value (ALV), is the starting point for the assessment as this is one of the key variables in the financial development appraisals. In this chapter we have considered the values of different types of land. The value of land relates closely to the use to which it can be put and will range considerably from site to site; however, as this is a high level study, we have looked at the three main uses, being: agricultural, residential and industrial. We have then considered the amount of uplift that may be required to ensure that land will come forward.

Current and Alternative Use Values

6.3 In order to assess development viability, it is necessary to analyse current and alternative use values. Current use values refer to the value of the land in its current use <u>before planning consent is granted</u>, for example, as agricultural land. Alternative use values refer to any other potential use for the site. For example, a brownfield site may have an alternative use as industrial land.

6.4 To assess viability, the value of the land for the particular scheme needs to be compared with the alternative use value, to determine if there is another use which would derive more revenue for the landowner. If the Residual Value does not exceed the alternative use value, then the development is not viable. For a site to be viable the Residual Value must exceed the existing/alternative use value by a sufficient margin to incentive a landowner to sell the land. This amount is referred to as the Viability Threshold. Only if there is a surplus (i.e. profit) over and above the 'normal' developer's profit having paid for the land (i.e. the Viability Thresholds), will there be scope to pay CIL.

6.5 For the purpose of the present study, it is necessary to take a comparatively simplistic approach to determining the alternative use value. In practice, a wide range of considerations could influence the precise value that should apply in each case, and at the end of extensive analysis the outcome might still be contentious.

6.6 Our 'model' approach is outlined below. For sites previously in agricultural use, then agricultural land represents the existing use value.

i. For paddock and garden land on the edge of or in a smaller settlement we have adopted a ‘paddock’ value.

ii. Where the development is on former industrial, warehousing or similar land, then the alternative use value is considered to be industrial, and an average value of industrial land for the area is adopted as the alternative use value.

iii. Where the site is currently in residential use we have used a residential value.

Residential Land

6.7 We have considered general figures from the Valuation Office Agency (VOA) relating to residential land values. Land values vary dramatically depending upon the development characteristics (size and nature of the site, density permitted etc.) and any affordable or other development contribution.

6.8 The VOA publishes figures for residential land in the Property Market Report. These cover areas which generate sufficient activity to discern a market pattern. That means that locally we do not have any figures, Bristol, Oxford and Birmingham are the closest. The report does include figures for Wrexham which is a similar rural area with house prices that are not dissimilar to Stroud District so is a relevant reference point.

6.9 These values can only provide broad guidance, they can therefore be only indicative, and it is likely that values for ‘oven ready’ land (i.e. land with planning consent and ready for immediate building) with no affordable provision or other contribution, or servicing requirement, are in fact higher.

Table 6.1 Residential Land Values at January 2011 Bulk Land £/ha (£/acre)	
Bristol	2,100,000 (850,000)
Oxford	4,000,000 (1,600,000)
Birmingham	1,235,000 (500,000)
Wrexham	850,000 (344,000)

Source: VOA Property Market Report 2011

6.10 The values in the Property Market Report are based on the assumption that land is situated in a typically average greenfield edge of centre / suburban location for the area and it has been assumed that services are available to the edge of the site and that it is ripe for development with planning permission being available. The values provided assume a maximum of a two storey construction with density, S106 provision and affordable housing ratios to be based on market expectations for the locality (which are lower than those in the Local Plan). The report cautions that the values should be regarded as illustrative rather than definitive and represent typical levels of value for sites with no abnormal site constraints and a residential planning permission of a type generally found in the area. It is important to note that these values are net – that is to say they relate to the net developable area and do not take into account open space that may form part of the scheme.

6.11 It should also be noted that the above values will assume that grant was available to assist the delivery of affordable housing (due to the date of the VOA Report). This grant is now very restricted so these figures should be given limited weight. Further due to the date of the report, these values are well before the introduction of CIL, so do not reflect this new charge on development. As acknowledged by the RICS Guidance, a new charge such as CIL will inevitably adversely impact on land values, a point reinforced by the Greater Norwich CIL Examiner[15].

6.12 We also sought information about values from residential land currently on sale in the District. None is being publicly marketed at the moment. We have therefore consulted agents operating in the area.

6.13 Generally agents and interested parties, through the consultation process, suggested prices from an absolute minimum of £370,000 to £500,000 per gross hectare (£150,000 to £200,000/acre) or £800,000 per net developable hectare (£325,000/acre) (assuming 60% developed). There was not a strong consensus in this regard amongst consultees. And other than the above no firm alternative suggestions were put forward.

6.14 It is important to note that these prices relate to sales that took place before the introduction of CIL – and to a large extent do not fully take into account the full requirements of the policies in the Local Plan. As acknowledged by the RICS Guidance, it is inevitable that a ‘tax’ such as CIL will depress land values.

6.15 It is necessary to make an assumption about the value of residential land. We have assumed an historic value of £800,000/ha (£325,000/acre) for residential land. This amount is on a net basis to exclude the areas of open space and the like. We have assumed a value of £400,000 per gross ha (£160,000/acre).

Industrial Land

6.16 The VOA’s typical industrial land values for the nearby locations are not representative of the area. We have undertaken a market survey and there is a considerable variation in the prices. Based on this we have assumed figures of £400,000/ha (£160,000/acre) for the study area. This is substantially lower than the amount used in the CIL Development

[15] Greater Norwich Development Partnership – for Broadland District Council, Norwich City Council and South Norfolk Council. by Keith Holland BA (Hons) Dip TP, MRTPI ARICS Date: 4 December 2012

Appraisal Study where an assumption of £1,500,000/ha (£610,000/acre) was made. We can find little evidence of such values.

6.17 We tested this with the developers at the consultation event. The consensus was that the value fell in the range of £250,000/ha to £625,000/ha and that the value was highly site specific. Following the initial consultation event we have assumed a value of industrial land of £400,000/ha, although we of course accept that there will be sites that fall both above and below this value.

Agricultural and Paddocks

6.18 Agricultural values rose for a time several years ago after a long historic period of stability. Values are around £15,000-£25,000/ha depending upon the specific use. A benchmark of £25,000/ha is assumed to apply here.

6.19 Sites on the edge of a town or village may be used for an agricultural or grazing use but have a value over and above that of agricultural land due to their amenity use. They are attractive to neighbouring households for pony paddocks or simply to own to provide some protection and privacy. We have assumed a higher value of £50,000/ha for village and town edge paddocks.

Use of alternative use benchmarks

6.20 The results from appraisals are compared with the alternative use values set out above in order to form a view about each of the sites' viability. This is a controversial part of the viability process and the area of conflicting guidance (the Harman Guidance verses the RICS Guidance). In the context of this report it is important to note that it does not automatically follow that, if the residual value produces a surplus over the alternative use value benchmark, the site is viable. The land market is more complex than this and as recognised by paragraph 173 of the NPPF, the landowner and developer must receive a '*competitive return*'. The phrase *competitive return* is not defined in the NPPF, nor in the Guidance.

6.21 The RICS Guidance includes the following definition:

Competitive returns *- A term used in paragraph 173 of the NPPF and applied to 'a willing land owner and willing developer to enable development to be deliverable'. A 'Competitive Return' in the context of land and/or premises equates to the Site Value as defined by this guidance, i.e. the Market Value subject to the following assumption: that the value has regard to development plan policies and all other material planning considerations and disregards that which is contrary to the development plan. A 'Competitive Return' in the context of a developer bringing forward development should be in accordance with a 'market risk adjusted return' to the developer, as defined in this guidance, in viably delivering a project.*

6.22 Whilst this is useful it does not provide any guidance as to the size of that return. To date there has been much discussion within the industry and amongst planners as to what may and may not be a competitive return, as yet the term has not been given a firm definition through the appeal, planning examination or legal processes[16]. The January 2013 appeal APP/X0360/A/12/2179141 (Land at The Manor, Shinfield, Reading RG2 9BX) does shed some light in this. We have copied a number of key paragraphs below as, whilst these do not provide a strict definition of competitive return the inspector (Clive Hughes BA (Hons) MA DMS MRTPI) does set out his analysis clearly. The following paragraphs are necessarily rather long however as they are the only current steer in this regard we have included all that are relevant.

37. Core Strategy Policy CP5 says that all residential developments … will provide up to 50% of the net additional units proposed as affordable units, where viable. The policy includes a table which identifies the appeal site … where the minimum percentage of affordable housing sought is 40% ***subject to viability****. It is the viability, or otherwise, of the amount of affordable housing now sought that is at issue. The Council is seeking 40% of the net additional units to be affordable housing in accordance with that policy; the appellants assert that the maximum amount that would be viable is 2%....*

38. Paragraph 173 of the Framework advises that to ensure viability, the costs of any requirements likely to be applied to development, such as requirements for affordable housing, standards, infrastructure contributions or other requirements should, when taking account of the normal cost of development and mitigation, provide competitive returns to a willing land owner and willing developer to enable the development to be deliverable. The Framework provides no advice as to what constitutes a competitive return; the interpretation of that term lies at the heart of a fundamental difference between the parties in this case. The glossary of terms appended to the very recent RICS guidance note Financial viability in planning (RICS GN) says that a competitive return in the context of land and/ or premises equates to the Site Value (SV), that is to say the Market Value subject to the assumption that the value has regard to development plan policies and all other material considerations and disregards that which is contrary to the development plan. It is also the case that despite much negotiated agreement, in respect of calculating the viability of the development, other significant areas of disagreement remain.

Benchmark Land Value

57. There is a significant difference in the figures produced by the parties. The Council calculated a Benchmark Land Value of ……. During the Inquiry reference was made to Current Use Value (CUV) and Existing Use Value (EUV) but it was agreed that these definitions are interchangeable in respect of the calculations used for this site.

58. Since the use of the land by … ceased, the site was used for a couple of years for open storage with the benefit of temporary planning permission. While that permission was personal and time limited, advice on the Decision Notice said that the development accorded with the adopted and

[16] In this context the following CIL Examination Reports are relevant. **Mid Devon District Council** by David Hogger BA MSc MRTPI MCIHT, Date: 20 February 2013. **Greater Norwich Development Partnership** – by Keith Holland BA (Hons) Dip TP, MRTPI ARICS Date: 4 December 2012

emerging development plan. This is not surprising as the site is still allocated for employment uses. The appellants use open storage on the site as a starting point.

59. The appellants again made use of a comparator site, an open storage site … having recently been sold. This site has the benefit, in valuation terms, of having no hope value for residential use due to potential flood risk in the access roads. That use was dismissed at appeal. …

61. The appellants' valuation of the site is £2,325,000 based upon 8 acres of commercial open storage/ industrial land and buildings at £250,000 per acre and 13 acres of settlement fringe at £25,000 per acre. The figure of £250,000 per acre seems reasonable in the light of the recent sale value achieved at the smaller site at Paddock Road (£330,000 per acre).

62. The Council did not use comparators; instead it relied upon a valuation based upon a substantial office scheme on the appeal site. This was based upon the outline planning permission for offices on the site in 2003 that was renewed in 2006 but which has since lapsed. This development provided a value of £2.75m; from this it is necessary to subtract the cost of decontaminating the land. This gives a benchmark SV of £1.865m, a figure revised from the Council's original evidence to take account of the agreed costs of decontamination. I am concerned about this approach in that the Council has failed to demonstrate that there is any market for such a substantial office development here. Indeed, the only recently completed (2009) office development of comparable scale, The Blade in Reading, is still largely vacant.

63. Overall, therefore, there is a difference between the parties of about £500,000 (£2.3m compared to £1.8m) in the benchmark land value. Neither figure is wholly watertight……

Competitive return

64. Determining what constitutes a competitive return inevitably involves making a subjective judgement based upon the evidence. Two very different viewpoints were put forward at the Inquiry with the appellants seeking a land value of £4,750,000 which is roughly the mid-point between the EUV/CUV and the RLV with planning permission for housing and no obligations. This ties in with the 50:50 split between the community and the landowner sought by the appellants. The Council considered that a sum of £1.865m would ensure a competitive return; that is to say the Council's calculation of the EUV/CUV.

65. Paragraph 173 of the Framework says that the costs of any requirements should provide competitive returns to a willing landowner and willing developer to enable the development to be deliverable. The paragraph heading is "Ensuring viability and deliverability"; it is clear that its objective is to ensure that land comes forward for development. I am not convinced that a land value that equates to the EUV/CUV would provide any incentive to the landowner to sell the site. Due to the particular circumstances of this site, including the need to remediate the highly significant level of contamination, such a conclusion would not provide any incentive to the landowner to carry out any remediation work. There would be no incentive to sell the land and so such a low return would fail to achieve the delivery of this site for housing development. In these circumstances, and given the fact that in this case only two very different viewpoints on what constitutes a competitive return have been put forward, the appellants' conclusions are to be preferred. In the scenario preferred by the Council, I do not consider that the appellants would be a willing vendor.

Viable amount of Affordable Housing

66. The RICS GN says that any planning obligations imposed on a development will need to be paid out of the uplift in the value of the land but it cannot use up the whole of the difference, other than in exceptional circumstances, as that would remove the likelihood of land being released for development. That is exactly what is at issue here in that the Council's valuation witness, in cross examination, stated that a landowner should be content to receive what the land is worth, that is to say the SV. In his opinion this stands at £1.865m. I accept that, if this figure was agreed (and it is not), it would mean that the development would be viable. However, it would not result in the land being released for development. Not only is this SV well below that calculated by the appellants, there is no incentive to sell. In short, the appellants would not be willing landowners. If a site is not willingly delivered, development will not take place. The appellants, rightly in my opinion, say that this would not represent a competitive return. They argue that the uplift in value should be split 50:50 between the landowner and the Council. This would, in this instance, represent the identified s106 requirements being paid as well as a contribution of 2% of the dwellings as affordable housing.

70. I conclude on this issue that, allowing the landowner a competitive return of 50% of the uplift in value, the calculations in the development appraisal allowing for 2% affordable housing are reasonable and demonstrate that at this level of affordable housing the development would be viable (Document 26). The only alterations to these calculations are the relatively minor change to the s106 contribution to allow for a contribution to country parks and additions to the contributions to support sustainable modes of travel. These changes would have only a limited impact on the return to the landowner. The development would remain viable and I am satisfied that the return would remain sufficiently competitive to enable the land to come forward for development. Overall, therefore I conclude that the proposed amount of affordable housing (2%) would be appropriate in the context of the viability of the development, the Framework, development plan policy and all other material planning considerations.

6.23 It is clear that for land to be released for development, the surplus needs to be sufficiently large to provide an incentive to the landowner to release the site and cover any other appropriate costs required to bring the site forward for development. It is therefore appropriate and an important part of this assessment to have regard to the market value of land.

6.24 The RICS Guidance recognises that the value of land will be influenced by the requirements imposed by planning authorities. It recognises that the cost to the developer of providing affordable housing, building to increased environmental standards, and paying CIL, all have a cumulative effect on viability and are reflected in the ultimate price of the land. A central question for this study is at what point do the requirements imposed by the planning authorities make the price of land so unattractive that it does not provide competitive returns to the land owner, and does not induce the owner to make the land available for development.

6.25 As recognised by one of the consultees this appeal decision needs to be treated with caution. The reality of the market is that each and every land owner has different requirements and different needs and will judge whether or not to sell by their own criteria. We therefore have to consider how large such an 'uplift' or 'cushion' should be for each type of site to broadly provide a competitive return. The assumptions must be a generalisation as in practice the size of the uplift will vary from case to case depending on how many landowners are involved, each landowner's attitude and their degree of involvement in the current property market, the location of the site and so on. An 'uplift' of, say, 5% or £25,000/ha might be sufficient in some cases, whilst in a particular case it might need to be five times that figure, or even more.

6.26 Initially, based on work we have done elsewhere, we assumed that the Viability Threshold (being the amount that the Residual Value must exceed for a site to be viable) of the EUV / AUV plus a 20% uplift would be sufficient. This is supported both by work we have done elsewhere and by appeal decisions (see Chapter 2). Based on our knowledge of rural development, and from working with farmers, landowners and their agents, we have made a further adjustment for those sites coming forward on greenfield land. We added a further £350,000/ha (£140,000/acre) to reflect this premium – this is an increase of £100,000 as a result of comments made at the consultation event. We have also added this amount to sites that were modelled on land that was previously paddock.

6.27 We fully accept that this is a simplification of the market, however in a high level study of this type that is based on modelled sites, simplifications and general assumptions need to be made.

6.28 This approach does reflect a very considerable uplift for a landowner selling a greenfield site with consent for development[17]. In the event of the grant of planning consent they would receive over ten times the value compared with before consent was granted. This approach (but not the amount) is the one suggested in the *Viability Testing Local Plans* (see Chapter 2 above) and by the Planning Advisory Service (PAS). The approach was endorsed by the Planning Inspector who approved the London Mayoral CIL Charging Schedule in January 2012[18].

6.29 We have considered how these amounts relate to prices for land in the market (see above), with a view to providing competitive returns to the land owner. Whilst there are certainly land transactions at higher values than these, we do believe that these are appropriate for a study of this type.

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[17] See Chapter 2 for further details and debate around EUV plus v Market Value methodologies.

[18] Paragraphs 7 to 9 of REPORT ON THE EXAMINATION OF THE DRAFT MAYORAL COMMUNITY INFRASTRUCTURE LEVY CHARGING SCHEDULE by Keith Holland BA (Hons) DipTP MRTPI ARICS an Examiner appointed by the Mayor Date: 27th January 2012

7. Appraisal Assumptions – Development Costs

7.1 This chapter considers the costs and other assumptions required to produce financial appraisals for the modelled sites. These figures were presented to the stakeholders at the first consultation event and largely agreed.

Development Costs

(i) Construction costs: baseline costs

7.2 We have based the cost assumptions on the Building Cost Information Service (BCIS) data – using the figures re-based specifically for Stroud District. The costs are specific to different built forms (flats, houses, etc). We have considered these and made appropriate adjustments – particularly to the smaller sites that are more likely to be in sensitive and more rural locations.

7.3 The Council has developed policies relating to the construction standards and environmental performance of new buildings. The current policy requirement is that homes are built to the basic Building Regulation Part L 2010 Standards.

7.4 From April 2008, the Code's Level 3 has been a requirement for all homes commissioned by housing associations but would not necessarily be the case for affordable homes built by developers for disposal to a housing association, unless grant was made available from the Homes and Communities Agency.

7.5 The Department for Communities and Local Government (CLG) published a review of the costs of building to the Code for Sustainable Homes (CfSH) in August 2011. This provides useful guidance as to the costs of the implementation of the various environmental standards. Bearing in mind the move towards higher standards with the amendments to Building Regulations we have assumed a minimum standard of CfSH Level 4.

7.6 We have assumed an additional cost, based on table 7.1 over and above BCIS costs for building to CfSH Level 4.

Table 7.1 Additional Cost of Building to CfSH Level 4 (per dwelling)					
	2b-Flat	2b-Terrace	3b-Semi	4b-Detach	Average dwelling
Small brownfield (20 dwellings at 40 dph)		£3,500 4.4%	£4,580 5.3%	£5,140 5.5%	£4,260 5.0%
City Infill (40 dwellings at 160 dph)	£3,400 6.2%				£3,400 6.2%
Edge of town (100 dwellings at 40 dph)	£3,950 7.2%	£4,280 5.3%	£5,360 6.2%	£5,920 6.4%	£4,787 6.2%
Urban Regeneration (1,000 dwellings at 160 dph)	£3,330 6.1%	£3,210 4.0%	£4,300 5.0%	£4,930 5.3%	£3,435 5.4%
Strategic Greenfield (2,000 dwellings at 40 dph)	£3,930 7.2%	£4,260 5.3%	£5,340 6.2%	£5,900 6.4%	£4,846 6.1%
Large edge of town (3,300 dwellings at 40 dph)	£3,930 7.2%	£4,260 5.3%	£5,340 6.2%	£5,900 6.4%	£4,705 6.2%

Source: Cost of building to the Code for Sustainable Homes, Updated cost review. CLG (Aug 2011)

7.7 **Appendix 6** contains the April 2013 BCIS build costs for Stroud District – broken into a number of key development types. We have used the median costs for the different development types that occur on the appraisal sites. We acknowledge that this is a relatively simplistic approach however by making the adjustments set out below we are comfortable with this approach in this high level and broad brush study.

7.8 It should be noted that the increase in costs of building to a higher standard that Level 4 can be very substantial. We have not costed for this however should higher standards be introduced it will be necessary to review the levels of CIL and the amounts of affordable housing requested.

7.9 There was criticism of the use of average costs and the suggestion was made that actual specific prices should be used. This is a high level study that is based on modelling typical sites that are likely to come forward over the plan period. It is necessary to make a series of high level and broad brush assumptions that are broadly representative, the alternative being the impractical alternative of testing every site in the SHLAA. In the absence of a practical alternative we have continued to use average prices. This approach is in line with the Harman Guidance.

(ii) Construction costs: site specific adjustments

7.10 It is necessary to consider whether any site specific factors would suggest adjustments to these baseline cost figures. During the mid-1990s planning guidance on affordable housing was based on the view that construction costs were appreciably higher for smaller sites with the consequence that, as site size declined, an unchanging affordable percentage requirement would eventually render the development uneconomic. Hence the need for a ‘site size threshold’, below which the requirement would not be sought.

7.11 It is not clear to us that this view is completely justified. Whilst, other things being held equal, build costs would increase for smaller sites, other things are not normally equal and there are other factors which may offset the increase. The nature of the development will change. The nature of the developer will also change as small local firms with lower central overheads replace the regional and national house builders. Furthermore, very small sites may be able to secure a ‘non-estate’ price premium.

7.12 In the present study, several of the sites are considered to fall into the ‘small site’ category, on these sites we have used the appropriate small site costs from BCIS.

(iii) Construction costs: affordable dwellings

7.13 The procurement route for affordable housing is assumed to be through construction by the developer and then disposal to a housing association on completion. In the past, when considering the build cost of affordable housing provided through this route, we took the view that it should be possible to make a small saving on the market housing cost figure, on the basis that one might expect the affordable housing to be built to a slightly different specification than market housing. However, the pressures of increasingly demanding standards for housing association properties have meant that for conventional schemes of houses at least, it is no longer appropriate to use a reduced build cost; the assumption is of parity.

(iv) Other normal development costs

7.14 In addition to the BCIS £/m^2 build cost figures described above, allowance needs to be made for a range of infrastructure costs (roads, drainage and services within the site, parking, footpaths, landscaping and other external costs), off-site costs for drainage and other services and so on. Many of these items will depend on individual site circumstances and can only properly be estimated following a detailed assessment of each site. This is not practical within this broad brush study.

7.15 Nevertheless, it is possible to generalise. Drawing on experience and the comments of stakeholders it is possible to determine an allowance related to total build costs. This is normally lower for higher density than for lower density schemes since there is a smaller area of external works, and services can be used more efficiently. Large greenfield sites would also be more likely to require substantial infrastructure and thus a higher allowance in this regard.

7.16 In the light of these considerations we have developed a scale of allowances for the residential sites, ranging from 10% of build costs for the smallest sites, to 20% for the larger greenfield schemes.

7.17 One consultee suggested a standard 20% on all sites. We have not followed this as it will underestimate the costs on some sites and overestimate costs on others.

7.18 We have given careful thought as to how *major strategic* should be treated as these large sites, by their nature, can have very significant infrastructure requirements that can have a dramatic impact on viability. Additionally, these large sites are a vital part of the Council's strategy to deliver its housing target – in some cases if the urban extension does not come forward then the Development Plan may be put at risk. The April 2012 CIL Guidance is clear saying:

34. Charging authorities may want to consider setting differential rates as a way of dealing with different levels of economic viability within the same charging area (see regulation 13). This is a powerful facility that makes the levy more flexible to local conditions. Differences in rates need to be justified by reference to the economic viability of development. Charging authorities can set differential levy rates for different geographical zones provided that those zones are defined by reference to the economic viability of development within them. In some cases, charging authorities could treat a major strategic site as a separate geographical zone where it is supported by robust evidence on economic viability.

7.19 We have read this with page 23 of the Harman Guidance which says:

Landowners and site promoters should be prepared to provide sufficient and good quality information at an early stage, rather than waiting until the development management stage. This will allow an informed judgement by the planning authority regarding the inclusion or otherwise of sites based on their potential viability.

7.20 The modelling and appraisals carried out in a high level strategic report such as this are going to be based on generic and district wide assumptions. The Council has consulted the owners and or promoters of the strategic sites inviting them to contribute to the assessment process. In order to include the strategic sites within the development plan, the Council must be sure that they can be delivered and if this is not demonstrated they will review as to whether or not the sites can be included.

7.21 For the larger strategic sites we have taken the infrastructure items identified in the Council's Infrastructure Delivery Plan (IDP) and added these in. In the appraisals we have included the following costs:

Table 7.2 Strategic Site Infrastructure Costs from IDP				
Site	**Hunts Grove**	**Sharpness Dock**	**West of Stonehouse**	**NE Cam**
Location	Hardwick	Newton	Stonehouse	Cam
Units	500	300	1,500	450
Sites in area	2,418	1,612	2,239	1,612
% of area development	20.68%	18.61%	66.99%	27.92%
Libraries	131,100	52,440	196,650	104,880
Community Centres	278,156	111,263	417,234	222,525
Youth Support Services	84,000	33,600	126,000	67,200
Education				
Early years	104,907	62,944	314,722	94,417
Primary	1,471,432	882,859	4,414,297	1,324,289
Secondary	1,367,821	820,692	4,103,462	1,231,039
Further	547,128	328,277	1,641,385	492,415
Higher	0	0	0	0
Emergency Services				
Ambulance				
Fire and rescue				
Healthcare				
GP Services	164,646	65,858	246,969	131,717
Dentists	104,650	41,860	156,975	83,720
Hospitals	173,995	69,598	260,993	139,196
Energy				
Flood				
Water and Waste water				
Open Space, Sport and Rec				
Swimming Pools	168,059	67,224	252,088	134,447
Sports Halls	211,747	84,699	317,620	169,398
Playing Pitches	134,468	53,787	201,702	107,574
Outdoor Sports	384,029	153,612	576,044	307,223
Childrens Play	142,313	56,925	213,469	113,850
Informal Play	10,753	4,301	16,129	8,602
Green Space	276,000	110,400	414,000	220,800
Transport				
Highways	500,000		2,000,000	
TOTAL	**6,255,205**	**3,000,340**	**15,869,739**	**4,953,292**
Per Dwelling	12,510	10,001	10,580	11,007

Source: IDP Consultation Draft (Arup) July 2013. Based on Scenario 1 *(v) Abnormal development costs*

7.22 Several of the sites are modelled on, or partly on, previously developed land. We have set out the abnormal costs in **Chapter 9** where we set out the modelled sites. In some cases where the site involves redevelopment of land which was previously developed, there is the potential for abnormal costs to be incurred. Abnormal development costs might include demolition of substantial existing structures; piling or flood prevention measures at waterside locations; remediation of any land contamination; remodelling of land levels; and so on. With this variable we have increased the costs by an additional 10%.

(vi) Fees

7.23 For residential development we have assumed professional fees amount to 10% of build costs in each case. This is made up as follows:

Architects	6%	QS and Costs	0.5%
Planning Consultants	1%	Others	2.5%

7.24 For non-residential schemes we have assumed 8% fees.

(vii) Contingencies

7.25 For previously undeveloped and otherwise straightforward sites we would normally allow a contingency of 2.5% with a higher figure of 5% on more risky types of development, previously developed land and on central locations. So the 5% figure was used on the brownfield sites and the 2.5% figure on the remainder.

7.26 It was suggested through the consultation process that a 5% contingency should apply to all sites. We do not accept this as the purpose of the contingency is to reflect the developer's additional uncertainty and risks in tackling more difficult sites.

7.27 One consultees suggested that the contingency should be increased to 5% on greenfield sites and 7.5% to 10% on brownfield sites. Whilst we recognise that contingency sums will vary considerably and be set relative to the quantified risks and uncertainties on a particular project, we have not followed this suggestion – see the section headed Developer's Profit below.

(viii) S106 Contributions

7.28 Stroud District has had a limited policy of seeking payments from developers to mitigate the impact of the development through improvements to the local infrastructure but works with Gloucestershire County Council to make an assessment of the infrastructure requirements (particularly in connection to education and transport). Following discussion with the Council we have allowed for £2,500 per residential unit to be paid in the future under this heading. This was increased from the £1,000 per unit suggested at the initial consultation event.

7.29 The Council are in the process of preparing an Infrastructure Delivery Plan[19]. This includes the following costs being the consultant's summary of estimated infrastructure costs per dwelling that could form the basis for a CIL charging schedule. When interpreting the information in the chart, it is important to note the following qualifying points:

a. There are a number of infrastructure sectors and categories where costs have not been included. This includes site specific transport and flood risk management infrastructure that cannot be determined until detailed assessments have been undertaken.

b. Major projects that are already fully funded are not included (see above).

c. Estimated capital costs are not yet available for all projects and have therefore not been included in the April 2013 draft iteration of the IDP.

d. When setting a CIL, it will be important to consider what infrastructure costs can be fairly be attributed to new development.

Table 7.3 Summary of Estimated Infrastructure Costs

Infrastructure Category	Estimated contributions per Dwelling
Community & Culture	£986
Education	£6,983
Emergency Services	£122
Healthcare	£890
Energy	
Flood Risk, Water & Wastewater	£147
ICT	
Open Space, Sport & Recreation	£2,655
Cotswold Canals	£316
Transport & Public Realm	£2,418
Waste	
Total	**£14,517**

Source: From Table 22 of IDP Consultation Draft (Arup) July 2013 (Scenario 1)

7.30 It is important to note that the above amounts are what service providers ask for and are not what is necessarily required on each site. They are derived from standard calculators rather

[19] IDP Consultation Drafts (Arup) April and July 2013

than responding to the site specific circumstances. From April 2014, the Council's ability to pool s106 payments will be restricted[20], meaning that only site specific matters to mitigate the direct impact of development can be required. In due course the Council will introduce CIL and this will result in changes to this area of policy. We have run a set of appraisals with a range of different assumptions about infrastructure costs. This will enable a judgement to be made as to the development types ability to bear infrastructure costs, be they collected through CIL or under the s106 regime (or a combination of the two) – see Chapter 10.

Financial and Other Appraisal Assumptions

(i) VAT

7.31 For simplicity it has been assumed throughout, that either VAT does not arise, or that it can be recovered in full.

(ii) Interest rate

7.32 Our appraisals assume 7% pa for total debit balances, we have made no allowance for any equity provided by the developer. This does not reflect the current working of the market nor the actual business models used by developers. In most cases developers are required to provide between 30% and 40% of the funds themselves, from their own resources so as to reduce the risk to which the lender is exposed.

7.33 The 7% assumption may seem high given the very low base rate figure (0.5% January 2013). Developers that have a strong balance sheet, and good track record, can undoubtedly borrow less expensively than this, but this reflects banks' view of risk for housing developers in the present situation. In the residential appraisals we have prepared a simple cashflow to calculate interest.

7.34 For the non-residential appraisals, and in line with the 'high level' nature of this study, we have used the developer's rule of thumb to calculate the interest – being the amount due over one year on half the total cost. We accept that is a simplification, however, due to the high level and broad brush nature of this analysis, we believe that it is appropriate.

7.35 The relatively high assumption of the 7% interest rate, and the assumption that interest is chargeable on all the funds employed, has the effect of overstating the total cost of interest. In this study a cautious approach is being taken, so we believe this is a sound assumption.

[20] Under CIL Regulation 123 - Note the Government are currently consulting on extending the time period to 2015.

7.36 Following the consultation event it was suggested by one consultee that a 1% facility fee would be required at the set up stage and a 1% 'exit fee' on the project's completion. They also suggested an allowance be made for a £1,000 per month finance monitoring fee through the life of a project. The funding arrangements and fees will vary from lender to lender and project to project. We have increased the allowance for arrangement fees and legal and valuation fees in connection with the loan but have not fully followed this suggestion. No other consultees commented in this regard.

(iii) Developers' profit

7.37 We have assumed a developers' profit of 20% on the Gross Development Value to reflect the risk of undertaking development. This is a cautious and conservative assumption. Neither the NPPF nor the CIL Regulations and nor CIL Guidance provide useful guidance in this regard so, in reaching this decision, we have considered the RICS's *'Financial Viability in Planning*' (August 2012), the Harman Guidance *Viability Testing Local Plans, Advice for planning practitioners* (June 2012), and referred to the HCA's Economic Appraisal Tool. None of these documents are prescriptive, but they do set out some different approaches.

7.38 RICS's *'Financial Viability in Planning*' (August 2012) says:

3.3.2 *The benchmark return, which is reflected in a developer's profit allowance, should be at a level reflective of the market at the time of the assessment being undertaken. It will include the risks attached to the specific scheme. This will include both property-specific risk, i.e. the direct development risks within the scheme being considered, and also broader market risk issues, such as the strength of the economy and occupational demand, the level of rents and capital values, the level of interest rates and availability of finance. The level of profit required will vary from scheme to scheme, given different risk profiles as well as the stage in the economic cycle. For example, a small scheme constructed over a shorter timeframe may be considered relatively less risky and therefore attract a lower profit margin, given the exit position is more certain, than a large redevelopment spanning a number of years where the outturn is considerably more uncertain. ……..*

7.39 The Harman Guidance, *Viability Testing Local Plans, Advice for planning practitioners* (June 2012) which says:

The viability assessment will require assumptions to be made about the average level of developer overhead and profit (before interest and tax).

The level of overhead will differ according to the size of developer and the nature and scale of the development. A 'normal' level of developer's profit margin, adjusted for development risk, can be determined from market evidence and having regard to the profit requirements of the providers of development finance. The return on capital employed (ROCE) is a measure of the level of profit relative to level of capital required to deliver a project, including build costs, land purchase, infrastructure, etc.

As with other elements of the assessment, the figures used for developer return should also be considered in light of the type of sites likely to come forward within the plan period. This is because the required developer return varies with the risk associated with a given development and the level of capital employed.

Smaller scale, urban infill sites will generally be regarded as lower risk investments when compared with complex urban regeneration schemes or large scale urban extensions.

Appraisal methodologies frequently apply a standard assumed developer margin based upon either a percentage of Gross Development Value (GDV) or a percentage of development cost. The great majority of housing developers base their business models on a return expressed as a percentage of anticipated gross development value, together with an assessment of anticipated return on capital employed. Schemes with high upfront capital costs generally require a higher gross margin in order to improve the return on capital employed. Conversely, small scale schemes with low infrastructure and servicing costs provide a better return on capital employed and are generally lower risk investments. Accordingly, lower gross margins may be acceptable.

This sort of modelling – with residential developer margin expressed as a percentage of GDV – should be the default methodology, with alternative modelling techniques used as the exception. Such an exception might be, for example, a complex mixed use development with only small scale specialist housing such as affordable rent, sheltered housing or student accommodation.

7.40 The HCA's Economic Appraisal Tool – the accompanying guidance for the tool kit says:

Developer's Return for Risk and Profit (including developer's overheads)

<u>Open Market Housing</u>

The developer 'profit' (before taxation) on the open market housing as a percentage of the value of the open market housing. A typical figure currently may be in the region of 17.5-20% and overheads being deducted, but this is only a guide as it will depend on the state of the market and the size and complexity of the scheme. Flatted schemes may carry a higher risk due to the high capital employed before income is received.

<u>Affordable Housing</u>

The developer 'profit' (before taxation) on the affordable housing as a percentage of the value of the affordable housing (excluding SHG). A typical figure may be in the region of 6% (the profit is less than that for the open market element of the scheme, as risks are reduced), but this is only a guide.

7.41 It is unfortunate that the above are not consistent, but it is clear that the purpose of including a developers' profit figure is not to mirror a particular business model, but to reflect the risk a developer is taking in buying a piece of land, and then expending the costs of construction before selling the property. The use of developers' profit in the context of area wide viability testing of the type required by the NPPF and CIL Regulation 14, is to reflect that level of risk.

7.42 At the January 2013 appeal APP/X0360/A/12/2179141 (Land at The Manor, Shinfield, Reading RG2 9BX) the inspector considered this specifically, saying:

43. The parties were agreed that costs should be assessed at 25% of costs or 20% of gross development value (GDV). The parties disagreed in respect of the profit required in respect of the affordable housing element of the development with the Council suggesting that the figure for this should be reduced to 6%. This does not greatly affect the appellants' costs, as the affordable housing element is 2%, but it does impact rather more upon the Council's calculations.

44. The appellants supported their calculations by providing letters and emails from six national housebuilders who set out their net profit margin targets for residential developments. The figures ranged from a minimum of 17% to 28%, with the usual target being in the range 20-25%. Those that differentiated between market and affordable housing in their correspondence did not set different profit margins. Due to the level and nature of the supporting evidence, I give great weight it. I conclude that the national housebuilders' figures are to be preferred and that a figure of 20% of GDV, which is at the lower end of the range, is reasonable.

7.43 Through the consultation process it was suggested that the profit must be calculated on Gross Development Value (GDV) as this is the 'norm'. Generally we do not agree that linking the developer's profit to GDV is reflective of risk, as the risk relates to the cost of a scheme – the cost being the money put at risk as the scheme is developed. As an example (albeit an extreme one to illustrate the point) we can take two schemes, A and B, each with a GDV £1,000,000, but scheme A has a development cost of £750,000 and scheme B a lesser cost of £500,000. All other things being equal, in A the developer stands to lose £750,000 (and make a profit of £250,000), but in B 'only' £500,000 (and make a profit of £500,000). Scheme A is therefore more risky, and it therefore follows that the developer will wish (and need) a higher return. By calculating profit on costs, the developer's return in scheme A would be £150,000 and in scheme B would be £100,000 and so reflect the risk – whereas if calculated on GDV the profits would be £200,000 in both.

7.44 Broadly there are four different approaches that could be taken:

a. To set a different rate of return on each site to reflect the risk associated with the development of that site. This would result in a lower rate on the smaller and simpler sites – such as the greenfield sites, and a higher rate on the brownfield sites.

b. To set a rate for the different types of unit produced – say 20% for market housing and 6% for affordable housing, as suggested by the HCA.

c. To set the rate relative to costs – and thus reflect risks of development.

d. To set the rate relative to the gross development value as suggested by several of the stakeholders following the consultation event.

7.45 In deciding which option to adopt it is important to note that we are not trying to re-create any particular developer's business model. Different developers will always adopt different models and have different approaches to risk.

7.46 The argument is often made that financial institutions require a return of at least 20% on development value and if that is not shown they will not provide development funding. In the pre-Credit Crunch era there were some lenders who did take a relatively simplistic view to risk analysis but that is no longer the case. Most financial institutions now base their decisions behind providing development finance on sophisticated financial modelling that it is not possible to replicate in a study of this type. They do require the developer to demonstrate a sufficient margin, to protect them in the case of changes in prices or development costs but they will also consider a wide range of other factors, including the amount of equity the developer is contributing – both on a loan to value and loan to cost basis, the nature of development and the development risks that may arise due to demolition works or similar, the warranties offered by the professional team, whether or not the directors will provide personal guarantees, and the number of pre-sold units.

7.47 This is a high level study where it is necessary and proportionate to take a relatively simplistic approach, so, rather than apply a differential return (either site by site or split between market and affordable housing), it is appropriate to make some broad assumptions.

7.48 We have assumed that the profit to reflect risk is 20% of Gross Development Value. This assumption should be considered in line with the assumption about interest rates in the previous section, where a cautious approach was taken with a relatively high interest rate, and the assumption that interest is charged on the whole of the development cost. Further consideration should be given to the contingency sum in the appraisals which also reflects the risk.

(iv) Voids

7.49 On a scheme comprising mainly individual houses, one would normally assume only a nominal void period as the housing would not be progressed if there was no demand. In the case of apartments in blocks this flexibility is reduced. Whilst these may provide scope for early marketing, the ability to tailor construction pace to market demand is more limited.

7.50 For the purpose of the present study a three month void period is assumed for all residential developments and non-residential developments. We have given careful consideration to this assumption in connection to the commercial developments. There is very little speculative commercial development taking place so we believe that this is the appropriate assumption to make.

(v) Phasing and timetable

7.51 The appraisals are assumed to have been prepared using prices and costs at a base date of April 2013. A pre-construction period of six months is assumed for all of the sites. Each dwelling is assumed to be built over a nine month period.

7.52 The phasing programme for an individual site will reflect market take-up and would, in practice, be carefully estimated taking into account the site characteristics and, in particular, the size and the expected level of market demand. We have developed a suite of modelled assumptions to reflect site size and development type.

7.53 Sales data collected by Housebuilder Media shows that most of the national housebuilders are building over 25 units per outlet per year – with only Bovis being below this figure. In line with representations made by the development industry we have assumed a maximum, per outlet, delivery rate of 30 market units per year. On the smaller sites we have assumed much slower rates to reflect the nature of the developer that is likely to be bringing smaller sites forward. It should however be noted that the initial assumption of 30 to 35 units per year was supported by some consultees.

7.54 We believe that these are conservative and do, properly, reflect the current market.

7.55 Some of the larger sites, particularly Hunts Grove , Land to the West of Stonehouse and the land to the North East of Cam would, if included in the plan, be developed out over many years and it is more than likely that there will be multiple outlets (i.e. more than one developer) operating on these large sites over the plan period. This was discussed at the first consultation event where at least one landowner suggested that in the current market there would be no more than 2 outlets operating at any one time. On this basis Hunts Grove would take over 25 years to complete. We do not accept this. Over the plan period the property market is likely to go through several cycles and the rate of delivery will fluctuate over time. We have limited the number of outlets per site to two – except on the land East of Stonehouse, which is three times as large as the next largest site, where we have assumed 4 outlets.

Site Acquisition and Disposal Costs

(i) Site holding costs and receipts

7.56 Each site is assumed to proceed immediately and so, other than interest on the site cost during construction, there is no allowance for holding costs, or indeed income, arising from ownership of the site. It is assumed that whilst each site will proceed immediately, it is assumed that it will take a developer 9 months to mobilise and prepare before actually starting construction of the units. It is assumed that each unit has a nine month construction period. On this basis it is 18 months before any site generates income.

(ii) Acquisition costs

7.57 We have taken a simplistic approach and assumed an allowance 1.5% for acquisition agents' and legal fees. Stamp duty is calculated at the prevailing rates.

(iii) Disposal costs

7.58 For the market and the affordable housing, sales and promotion and legal fees are assumed to amount to some 2.5% of receipts. For disposals of affordable housing these figures can be reduced significantly depending on the category so in fact the marketing and disposal of the affordable element is probably less expensive than this.

7.59 Following representations made through the consultation process, and to reflect the current market, we have increased disposal costs to 3.5%.

8. Planning Policy Requirements

8.1 A purpose of this study is to assess the cumulative impact of the Council's policies on development viability. In this Chapter we have reviewed the various policies that have an impact in development costs.

8.2 There are of course many other policies that have an impact on what a developer may and may not do however where they are so fundamental to the Plan as to be non-negotiable in anyway we have not considered them separately – rather have reflected their costs in the base assumptions.

8.3 In the following sections we have made selective quotations from the Council's policies to highlight those parts of the policy that are costly to the developer and for the purpose of assessing the cumulative impact of the policies. The policies are often wider than the selected quotations.

Core Policy CP5 Environmental development principles for strategic sites

Strategic sites will:

1. Be built at an appropriate density that is acceptable in townscape, local environment, character and amenity terms

2. Be low impact in terms of the environment and the use of resources

3. Be readily accessible by bus, bicycle and foot to shopping and employment opportunities, key services and community facilities and contribute towards the provision of new sustainable transport infrastructure to serve the area

4. Have a layout, access, parking, landscaping and community facilities in accordance with an approved indicative masterplan

5. Be located to achieve a sustainable form of development and/or support regeneration. Development proposals should incorporate a negotiated design code/framework.

Applications for all strategic sites (both residential and non-residential) will be required to provide a statement demonstrating how sustainable construction principles have been incorporated. This should address demolition, construction and long term management. This will be expected to show how the proposal maximises its contribution towards the following objectives:

A. Sustainable sourcing of materials and their efficient and appropriate use, including their durability

B. Minimising waste and maximising recycling

C. Incorporating Sustainable Drainage Systems

D. Minimising water consumption

E. Minimising energy consumption and improving energy performance

F. Minimising net greenhouse gas emissions of the proposed development

G. Maximising low or zero carbon energy generation.

Where the Council considers it could be likely that the proposal will result in significant adverse environmental effects during the construction phase, a Construction Environmental Management Plan (CEMP) will be required.

8.4 The above requirements separate into two parts. Firstly the points 1 to 5. These will be dealt with through the Design and Access Statement / master planning process and, so long as they are incorporated from the outset of the design process, should not add to the design costs of a project and will be covered by the 10% / 8% allowances for fees.

8.5 Secondly parts A to G are potentially asking developers to build to standards over and above the national standards set out in the NPPF and Building Regulations. No additional standard is set out or specified. We have therefore assumed that the aim is to require developers to achieve these standards within the national standards and have not therefore attributed any costs to this policy.

Core Policy CP6 Infrastructure and developer contributions

The Council will work with partners to ensure that infrastructure will be in place at the right time to meet the needs of the District and to support the development strategy. This will be achieved by:

1. The preparation and regular review of the Infrastructure Delivery Plan (IDP) for the District that will set out the infrastructure to be provided by partners, including the public sector and utilities

2. Securing contributions to all aspects of land use, infrastructure and services that may be affected by development, in accordance with the District Council's identified priorities and objectives for delivering sustainable communities

3. The preparation of a Community Infrastructure Levy (CIL) charging schedule that sets out the level of developer contributions towards new or upgraded infrastructure to support the overall development strategy

4. Negotiating appropriate planning obligations to mitigate any adverse impacts of proposed development – while avoiding duplication of payments made through CIL.

Where implementation of a development would create a need to provide additional or improved infrastructure and amenities, would have an impact on the existing standard of infrastructure provided, or would exacerbate an existing deficiency in their provision, the developer will be expected to make up that provision for those local communities affected. Where the developer is unable to make such provision, the Council will require the developer to make a proportionate contribution to the overall cost of such provision through a legal agreement and/or Community Infrastructure Levy.

Various types of contribution will be used, including the following:

1. In-kind contributions and financial payments

2. Phased payments and one-off payments

3. Maintenance payments

4. Pooled contributions

5. <u>A combination of the above.</u>

8.6 We have set out the assumptions we have made in this regard in Chapter 7. Following discussion with the Council we have allowed for £2,500 per residential unit to be paid in our base appraisals. The rates of CIL recommended in the CIL Development Appraisal Study are as follows:

Table 8.1 Recommended Levels of CIL for Principal Types of Development in Stroud	
Type of Development	CIL Rates £ per square metre New additional floorspace
Open Market Residential in Defined Urban Areas	£80
Open Market Residential in Rural Areas	£120
Residential Institutions	£50
Office, Industrial and Distribution	£0
Retail developments above 1,000m^2 gross internal area	£120
Small retail developments below 1,000m^2 gross internal area	£0
Leisure [selected types]	£0
Hotel [1,000m^{2}and above]	£80
Other development	£0

Source: Table 7.1: CIL Development Appraisal Study (Chris Marsh Associates, August 2012)

Core Policy CP7 Lifetime communities

To ensure that new housing development contributes to the provision of sustainable and inclusive communities (including the provision of community facilities) in the District, developers will need to clearly demonstrate how major housing development will contribute to meeting identified long term needs in those communities the development relates to. Proposals will need to demonstrate how the following needs have been taken into account:

1. *An ageing population, particularly in terms of design, accessibility, health and wellbeing service co-ordination*
2. *Children, young people and families*
3. *People with special needs, including those with a physical, sensory or learning disability, dementia, or problems accessing services and*
4. *The specific identified needs of minority groups in the District.*

Proposals will need to demonstrate how the factors below have informed the development proposal:

A. *Lifetime accommodation*

B. *Contribution to meeting the needs of those with an existing long standing family, educational or employment connection to the area.*

8.7 There are two costs to this policy. The first is the requirement for the developer to 'clearly demonstrate how major development will contribute to meeting identified long term needs of the District (including a viability assessment and delivery plan)'. This would be within the 'normal' design and access statement that would normally be prepared to accompany a planning application.

8.8 We would anticipate that the design of any scheme will be informed by the housing requirements, as identified in the SHMA, in terms of mix and type of housing.

8.9 The second element is 'lifetime' accommodation. To reflect this we have assumed all new homes are built to Lifetime Homes Standard. We have assumed the cost of implementing this is £1,000 per unit[21].

8.10 During the consultation process the meaning of *'…developers will need to clearly demonstrate how major development will contribute to meeting identified long term needs of the District…'* was discussed. There was some concern that this could be interpreted as the developer should, in effect, become the providers of services to support the groups in the four numbered sub-paragraphs. The Council confirmed that this was not the intention and we have not modelled the provision of such services.

Core Policy CP8 New housing development

New housing development must be well designed to address local housing needs, incorporating a range of different types, tenures and sizes of housing, to create mixed communities. New developments should take account of the District's housing needs, as set out in the Strategic Housing Market Assessment.

Residential development proposals will need to:

1. Be built at an appropriate density that is acceptable in townscape, local environment, character and amenity terms

2. Have a layout that supports accessibility by bus, bicycle and foot to shopping and employment opportunities, key services and community facilities or contribute towards provision of new sustainable transport infrastructure to serve the area

3. Have a layout, access, parking, landscaping and community facilities that are appropriate to the site and its surroundings

4. Use sustainable construction techniques and provide renewable or low carbon energy sources in association with the proposed development and

5. Enable provision of infrastructure in ways consistent with cutting greenhouse gas emissions and adapting to climate change and its consequences.

6. Major residential development proposals will be expected to enhance biodiversity through a network of multi-functional green spaces, which support the natural and ecological processes

[21] See http://www.lifetimehomes.org.uk/pages/costs.html

8.11 This policy is similar to CP5 above. The requirements will be dealt with through the Design and Access Statement / master planning process and, so long they are incorporated from the outset of the design process, should not add to the design costs of a project and will be covered by the 10% / 8% allowance for fees.

8.12 No additional standard is set out or specified. We have therefore assumed that the aim is to require developers to achieve these standards within the national standards and have not therefore attributed any costs to this policy.

<u>Core Policy CP9 Affordable housing</u>

Planning permission will be granted for residential (including extra care) development providing an appropriate density that is acceptable in townscape, local environment, character and amenity terms, dwelling types, tenures and sizes seamlessly integrated with existing development or proposed mixed-use development. Affordable housing should broadly reflect the sizes and types that meet the proven needs of people who are not able to compete in the general housing market as well as reflecting the dwelling sizes and design in the proposed development.

All residential proposals of at least 4 dwellings (net) or capable of providing 4 dwellings (net) covering a net site area of at least 0.16 ha will provide at least 30% of the net units proposed as affordable dwellings, where viable.

On sites capable of providing less than four dwellings (net) a financial contribution to affordable housing of at least 20% of total development value will be expected (where viable) and will usually be secured through a s106 agreement or any equivalent future legal mechanism.

The Council will negotiate the tenure, size and type of affordable units on a site by site basis having regard to housing needs, site specifics and other factors.

8.13 We have modelled both the requirement for on-site provision on larger sites and for the commuted sum on smaller sites. To assist with the plan making process we have also tested a scenario with no affordable housing. We have assumed that affordable housing is delivered as 50% Affordable Rent and 50% Intermediate Housing. We have also tested the scenario where all affordable housing is delivered as Affordable Rent.

<u>Delivery Policy HC3 Strategic self-build housing provision</u>

At strategic sites allocated within this Local Plan a minimum of 2% of the dwellings shall be to meet Government aspirations to increase self build developments. These schemes will:

1. *Be individually designed, employing innovative approaches throughout that cater for changing lifetime needs*
2. *Provide for appropriate linkages to infrastructure and day to day facilities*
3. *Include a design framework to inform detailed design of the individual units, where more than one self build unit is proposed*

8.14 This is an unusual policy that was discussed at some length at the consultation event. It was agreed that this should not be modelled separately as, on the whole, self-builders pay a premium for their plots. It was felt that this premium would more-or-less equal the ‘loss’ to the site owner / developer of developing the units themselves.

Core Policy CP11 New Employment Development

New employment development will be provided through a range of sites and premises across the District. Strategic employment sites will be allocated, mixed use developments encouraged and the expansion of existing businesses and rural diversification supported. Employment sites will be provided in order to increase the range and choice of sites available and to address the self-containment of settlements in terms of homes / jobs balance.

Existing employment sites will be safeguarded unless new proposals are put forward that intensify the employment use of the site supported by enabling development as set in other policies in the Local Plan. In general, mixed use proposals on existing employment sites should provide for an increase in job opportunities above the level last employed on site and at least to a ratio of 1.2 jobs per residential unit provided on the site.

Permission will be granted for industrial or business development, or for the expansion or intensification of existing industrial or business uses, provided that the proposals would:

1. Be of a type and scale of activity that does not harm the character, appearance or environment of the site or its surroundings or to the amenity of occupiers of nearby properties

2. Be readily accessible by public transport, bicycle and foot or contribute towards provision of new sustainable transport infrastructure to serve the area

3. Have a layout, access, parking, landscaping and facilities that are appropriate to the site and its surroundings

4. Use sustainable construction techniques and provide for renewable or low carbon energy sources in association with the proposed development

5. Enable provision of infrastructure in ways consistent with cutting carbon dioxide emissions and adapting to changes in climate (including SuDS and green infrastructure)

6. Demonstrate how the principles of industrial symbiosis have been taken into account.

8.15 We have discussed this policy with the Council and the expectation is that the requirements of this policy will be met through best practice within the current national standards and Building Regulations or through the Design and Access statement – not imposing extra requirements on developers of employment space.

Core Policy CP12 Town centres and retailing

8.16 This policy contains the following section:

…. On large new urban extension sites, which are not within easy walking distance of existing shops and services, new local centres will be established or existing retail functions adapted to serve the needs of the residents. Such centres should be of a scale appropriate to the site and should not undermine the role or function of other centres within the retail hierarchy…

8.17 This will impact in development viability in two ways. The first is that it will reduce the net area available for development. The second impact is the replacement of a development type that is normally viable, being residential, with one that is normally unviable, being small retail (based on the findings of the CIL Development Appraisal Study).

8.18 We have incorporated this requirement into our modelling on the strategic development sites where the net developable area is reduced

<u>*Core Policy CP14 High Quality Sustainable Development*</u>

High quality development, which protects, conserves or enhances the built and natural environment, will be supported. Development will be supported where it achieves the following:

1. *Sustainable construction techniques, including facilities for the recycling of water and waste, measures to minimise energy use and maximise renewable energy production*
2. *No unacceptable levels of air, noise, water, light or soil pollution or exposure to unacceptable risk from existing or potential sources of pollution. Improvements to soil and water quality will be sought through the remediation of land contamination, the provision of SuDS and the inclusion of measures to help waterbodies to meet good ecological status.*
3. *Adequate water supply, foul drainage and sewage capacity to serve the development and satisfactory provision of other utilities, transport and community infrastructure*
4. *No increased risk of flooding on or off the site, and inclusion of measures to reduce the causes and impacts of flooding as a consequence of that development*
5. *An appropriate design and appearance, which is respectful of the surroundings, including the local topography, built environment and heritage*
6. *Re-use of previously developed land and/or the adaptation of existing buildings that make a positive contribution to the character of the site and surroundings, unless demonstrably unviable*
7. *No unacceptable adverse affect on the amenities of neighbouring occupants*
8. *Contribute to the retention and enhancement of important landscape & geological features, biodiversity interests (including trees, hedgerows and other natural features)*
9. *Contribute to a sense of place both in the buildings and spaces themselves and in the way in which they integrate with their surroundings including appropriate landscaping, biodiversity enhancement, open space and amenity space*
10. *A design and layout that aims to assist crime prevention and community safety, without compromising other design principles*
11. *Efficiency in terms of land use, achieving higher development densities in locations that are more accessible by public transport and other non-car modes and where higher densities are compatible with the character of the area and the setting of the development.*
12. *It is not prejudicial to the development of a larger area in a comprehensive manner*
13. *Safe, convenient and attractive accesses on foot and by cycle and suitable connections with existing footways, bridleway, cycleways, local facilities and public transport*
14. *It is at a location that is near to essential services and good transport links to services by means other than motor car. Major development should contribute to the provision for allotments and/or community gardens where there is an identified need.*

Development proposals will be required to demonstrate how they have responded to the above criteria through the submission of Design and Access Statements and relevant technical reports. It is important that the applicant provides clear and informative plans,

elevations and street scenes and, where required, Masterplans, Development Briefs, Concept Statements and Design Codes to show how these criteria have been taken into account where necessary.

8.19 This policy is a core policy that sets the tone of development throughout the district. We have not modelled an alternate for the costs of meeting points 1 to 13 as these are reflected in the base assumptions. The requirement for the applicant to 'demonstrate how they have responded to the above' could be onerous, however believe that this is covered under the assumption for fees.

Delivery Policy ES1 Contributing to a low carbon future

The Council will encourage the use of sustainable construction techniques and designs that promote the reuse and recycling of building materials, maximise opportunities for the recycling and composting of waste on all new development proposals (residential and non-residential) and reduce regulated and unregulated greenhouse gas emissions.

Residential development will be expected to meet the Code for Sustainable Homes Level 3 from 2013, Level 4 from adoption of the Local Plan and Level 6 from 2016 (or any successor date) as set out in the table below, unless it can be demonstrated that this is not viable or new standards are adopted.

Non-domestic development will be expected to achieve both a BREEAM rating of 'Very Good' and the Zero Carbon for Non- Domestic Buildings (ZCNDB) targets (or successor), as set out in the table below, unless it can be demonstrated that this is not viable. During the period when lower than 100% reduction standards are allowed, developers will be expected to provide details of how buildings may be economically retrofitted to the later standard.

In terms of regulated Co2 emissions alone, in order to meet these targets for both residential and non-residential development, the Council will consider the following approaches and potential 'Allowable Solutions' (to be set out under changes to the building regulations), that could include:

- *Energy efficiency measures;*
- *On-site renewables and low carbon technologies;*
- *Off-site generation (where a direct link is provided to the development); and*
- *Payment into a low carbon infrastructure fund.*

Year	Domestic Buildings		Non-Domestic Buildings	
	Code Level:	CO2 reduction	Code Level:	CO2 reduction
2006	Building Regs 2006	0%	Building Regs 2006	0%
2013	CfSH Level 3	15%	ZCNDB	15%
2015	CfSH Level 4	26%	ZCNDB	26%
2016	CfSH Level 6	100%	ZCNDB	50%
2019	CfSH Level 6	100%	ZCNDB	100%

8.20 We have based all the modelling in this study on CfSH Level 4 as set out in Chapter 7 above. Should the national requirement move to CfSH Level 6 then we would recommend a review of the Plan.

Delivery Policy ES4 Water resources and flood risk

The Strategic Flood Risk Assessments (SFRA 1 and 2) will be used to inform the location of future development within the District.

In considering proposals for development the District Council will weigh up all of the relevant policy issues when giving full consideration to the sequential test and implementing the "Exception Test" where necessary. Applications will be supported by Flood Risk Assessments where appropriate that demonstrate the development will be safe, not increase flood risk elsewhere, and maximise opportunities to reduce flood risk.

New developments will be required to incorporate appropriate Sustainable Drainage Measures (SuDs). This should be informed by specific catchment and ground characteristics, and will require the early consideration of a wide range of issues relating to the management, long term adoption and maintenance of SuDs.

For developments in areas with known surface water flooding issues, appropriate mitigation and construction methods will be required.

Applications and proposals which relate specifically to reducing the risk of flooding (e.g. defence / alleviation work, retro-fitting of existing development, off site detention / retention basins for catchment wide interventions) will be encouraged.

New development in areas with known ground and surface water flooding issues will seek to provide betterment in flood storage and to remove obstructions to flood flow routes where appropriate.

Development will:

1. Conserve and enhance the ecological flood storage value of the water environment, including watercourse corridors

2. Open up any culverted watercourse where safe and practicable to create an asset of community value

3. Improve water efficiency through incorporating appropriate water conservation techniques including rainwater harvesting and grey water recycling

4. Connect to the main sewer network wherever possible.

5. Use the natural environment including woods and trees to deliver sustainable water issue solutions.

8.21 This policy is potentially expensive for developers. In our modelling, based on information within the SHLAA, we have made appropriate allowance.

Delivery Policy ES6 Providing for biodiversity and geodiversity

8.22 This is a broad policy that seeks to protect and enhance biodiversity and geodiversity and includes the following section:

All new development will be required to conserve and enhance the natural environment, including all sites of ecological or geological value (whether or not they have statutory protection) and all protected or priority species. The Council will support development that enhances existing sites and habitats of nature conservation value (including wildlife and river corridors) that contribute to the priorities established through the Local Nature Partnership. The Gloucestershire Nature Map should be used to understand the ecological networks and in this respect all developments should enable species to move through the environment in response to predicted climate change and to prevent species isolation. In this respect all developments should also enable and not reduce species ability to move through the environment in response to predicted climate change and to prevent species isolation of significant populations.

8.23 We do not believe that this is a significant additional cost on development when considered against the sites within the SHLAA. On the whole we would anticipate that this requirement could be met though good design, without adding to the overall costs of development.

Delivery Policy ES10 Valuing our historic environment and assets

8.24 This is a broad policy that requires in Part 1:

Any proposals involving a historic asset shall require a description of the heritage asset significance including any contribution made by its setting, and an assessment of the potential impact of the proposal on that significance, using appropriate expertise. This can be a desk based assessment and a field evaluation prior to determination where necessary and should include the Gloucestershire Historic Environment Record.

8.25 The policy then goes on to set out the policy detail. The policy will add to the costs of sites that incorporate historic assets however we have not modelled the impact of this policy as few of the sites that are anticipated to deliver housing over the plan period involve historic assets.

Delivery Policy ES11 Restoring and regenerating the District's Canals

Development on the route of, or adjacent to, the Stroudwater Navigation, Thames and Severn Canal and/or Gloucester & Sharpness Canal will be permitted provided that the development does not prevent the improvement, reconstruction, restoration or continued use of the canal and its towpath.

Reasonably related financial contributions may be sought via Community Infrastructure Levy or, where appropriate, via legal agreements for contributions towards the improvement or restoration of the related canal and towpaths.

8.26 This is an additional costs on development however we have not modelled it separately as this is most likely to be covered through CIL (due to the constraints on pooling contributions set out in CIL Regulation 123).

Delivery Policy ES14 Provision of semi-natural and natural green space with new residential development

Strategic and major residential development shall be accompanied with additional accessible natural green space, proportionate to the scale of development. This will be provided to achieve the following target rates:

• Provision of at least 2ha of accessible natural green space per 1,000 population

• Provision of at least one accessible 20 hectare site within two kilometres of home;

• Provision of one accessible 100 hectare site within five kilometres of home; and

• No person should live more than 300m (or 5 minutes walk) from their nearest area of natural green space of at least 2 hectares in size.

All strategic scale residential development will be expected to have a network of such spaces.

8.27 We have reflected this in our base modelling through the density and net developable area assumptions used. We consider this to be a base assumption as in our experience most developments will incorporate these amounts of open space anyway.

Delivery Policy ES15 Provision of outdoor play space

Proposals for new residential development shall provide appropriate public outdoor playing space, to achieve a standard of 2.4ha per 1000 population. The standard can be subdivided into the following categories:

• Youth and Adult Facilities including Multi Use Games Area at 1.6 ha per 1000 population

• Playing Pitches 1.2 ha per 1000 population (sitting within the Youth and Adult Facilities Standard)

• Equipped Play Space for Children and Young People at 0.2 – 0.3 ha per 1000 population

• Local Area of Play (LAP)/ Local Equipped Area for Play (LEAP)/ Neighbourhood Equipped Area for Play (NEAP) at 0.4 – 0.5 ha per 1000 population.

Public Open Space should be usable and easily accessible to the dwellings it is intended to serve by a good quality pedestrian and cycle route.

Where achievement of this standard is unrealistic or inappropriate within the boundaries of the development site, a financial contribution will be sought in lieu of on-site provision. When new provision is provided, appropriate measures will be sought to ensure the future satisfactory maintenance and management of the open space.

Site distance thresholds are set out in Supplementary Planning Guidance, 'Residential Development Outdoor Play Space Provision'.

8.28 As for ES14 we have reflected the land used to implement this policy in our base modelling through the density and net developable area assumptions used. We consider this to be a base assumption as in our experience most developments will incorporate these amounts of open space in order to optimise the value of the end units. We have modelled the cost of the delivery under the requirements of CP6 above.

8.29 On the strategic sites we have made specific allowance as set out in Chapter 9.

Delivery Policy ES16 Public art contributions

Proportionate contributions will be required towards the provision of publicly accessible art and design works from development proposals comprising major residential schemes or major commercial, retail, leisure and institutional development involving 1,000m2 gross floorspace or 1ha of land or more which are publicly accessible.

Smaller schemes will be encouraged to include Public Art as a means of enhancing the development's quality and appearance. The level of contribution will be negotiated on an individual basis dependent upon the nature of the development proposal, taking into account the impact of this requirement on the economic viability of the development proposal.

8.30 We have allowed an additional £10,000 as an additional cost on non-strategic sites over 1ha and £50,000 on strategic sites as an alternate scenario in the modelling.

9. Modelled Sites

9.1 In the previous chapters we have set out the general assumptions to be inputted into the development appraisals. In this chapter we have set out the modelling. We stress that this is a high level and broad brush study that is seeking to capture the generality rather than the specific. The purpose is to establish the cumulative impact of the Council's policies of development viability and to inform the CIL setting process. This information will be used with the other information gathered by the Council to assess whether or not the sites are actually deliverable.

9.2 Our approach is to model a set of development sites that are broadly representative of the type of development that is likely to come forward in the District in the future. In addition we have modelled the key strategic sites that are to be included in the plan.

Modelled Residential Development Sites

Identifying a range of sites

9.3 This study is based on modelling. We acknowledge that modelling cannot be totally representative, however the aim of this work is to test the viability of sites likely to come forward over the plan period. This will enable the Council to assess whether the Plan is deliverable. The work is broad brush, so there are likely to be sites that will not be able to deliver the affordable housing target, other policy requirements and CIL, indeed as set out at the start of this report, there are some sites that will be unviable even without any policy requirements from the Council (for example brownfield sites with high remediation costs), but there will also be sites that can afford more. Once CIL has been adopted, there is little scope for exemptions to be granted, however, where the affordable housing target and other policy requirements cannot be met, the developer will continue to be able to negotiate with the planning authority. The planning authority will have to weigh up the factors for and against a scheme, and the ability to deliver affordable housing will be an important factor.

9.4 The modelled sites are informed by the sites in the SHLAA and range in size from 13 to over 100 dwellings.

9.5 In arriving at appropriate assumptions for residential development on each site, we have ensured that the built form used in our appraisals is appropriate to the current development practices. Most council areas in which we have carried out studies such as this one display a range of development situations and corresponding variety of densities. We have developed a typology which responds to that variety, which is used to inform development assumptions for sites (actual, or potential allocations). That typology enables us to form a view about floorspace density – the amount of development, measured in net floorspace per hectare, to be accommodated upon the site. This is a key variable because the amount of floorspace which can be accommodated on a site relates directly to the residual value, and is an amount which developers will normally seek to maximise (within the constraints set by the market).

9.6 The typology uses as a base or benchmark a typical post-PPG3/PPS3 built form which would provide development at around 3,550 m^2/ha on a substantial site, or sensibly shaped smaller site. A representative housing density might be 40-45 dwellings per ha. This has become a common development format. It provides for a majority of houses but with perhaps 15-25% flats, in a mixture of two storey and two and a half to three storey form, with some rectangular emphasis to the layout. This is may be representative over the plan period (15 years) however in the current market it is higher than most developers are likely consider.

9.7 There could, of course, be some schemes of appreciably higher density development providing largely or wholly apartments, in blocks of three storeys or higher, with development densities of 6,900 m^2/ha and dwelling densities of 100 units/ha upwards; and schemes of lower density, in the rural edge situations.

9.8 The density, in terms of units and floorspace, has been used to ensure appropriate development assumptions for a majority of the sites. This was presented to the stakeholders through the consultation process and there was a consensus that it was appropriate.

9.9 We have based the densities used in the site modelling on the expected density that is likely to come forward in current market conditions. These are informed by the density assumptions used in the SHLAA:

Table 9.1 Density matrix by accessibility and site type

Dwellings per hectare	In Urban Area	Edge of Urban Area	In smaller town or larger village	Edge of smaller town or larger village	Small village or rural area
Within 400m of Stroud town centre (Category 1a sites)	100				
Within 400m of other retail/service centres within Stroud Urban Area (Category 1b sites)	60	50			
Within 400m of a high frequency bus stop and bus stop less than 1 mile from retail/service centre OR within 400m of railway station (Cat 2 sites)	50	50	45	45	45
More than 400m from a high frequency bus stop and bus stop less than 1 mile from retail/service centre (Cat 3 sites)	45	45	40	40	40
Within 400m of a high frequency bus stop and bus stop more than 1 mile from retail/service centre (Cat 4 sites)	45	45	40	40	30
More than 400m from a high frequency bus stop and bus stop more than 1 mile from retail/service centre (Cat 5 sites)	40	40	30	30	30

Source: Table 9.1 Stroud SHLAA 2010

9.10 The SHLAA also sets out the following assumptions for the net development area.

Table 9.2 Net / Gross assumptions	
Site Size (ha)	Development Ratio (Net Developable Area)
< 10ha	100%
> 10 ha	75%

Source: Stroud SHLAA 2010

9.11 We have used the above to inform the designs put forward. However, there is one significant exception being the larger greenfield sites. In the current market it is unlikely that development would come forward at much above 32 units/ha – being a mix of family housing.

9.12 The Local Plan does not set out prescribed design criteria and development densities. Instead it includes the requirement in CP14 that the scheme has '*efficiency in terms of land use, achieving higher development densities in locations that are more accessible by public transport and other non-car modes*'.

9.13 Based on this we have assumed the following open space requirements in our modelling:

Table 9.3 Net / Gross assumptions	
Site Size (ha)	Development Ratio (Net Developable Area)
< 0.4 ha	100%
0.4 – 2 ha	80%
> 2 ha	70%

Source: HDH 2013

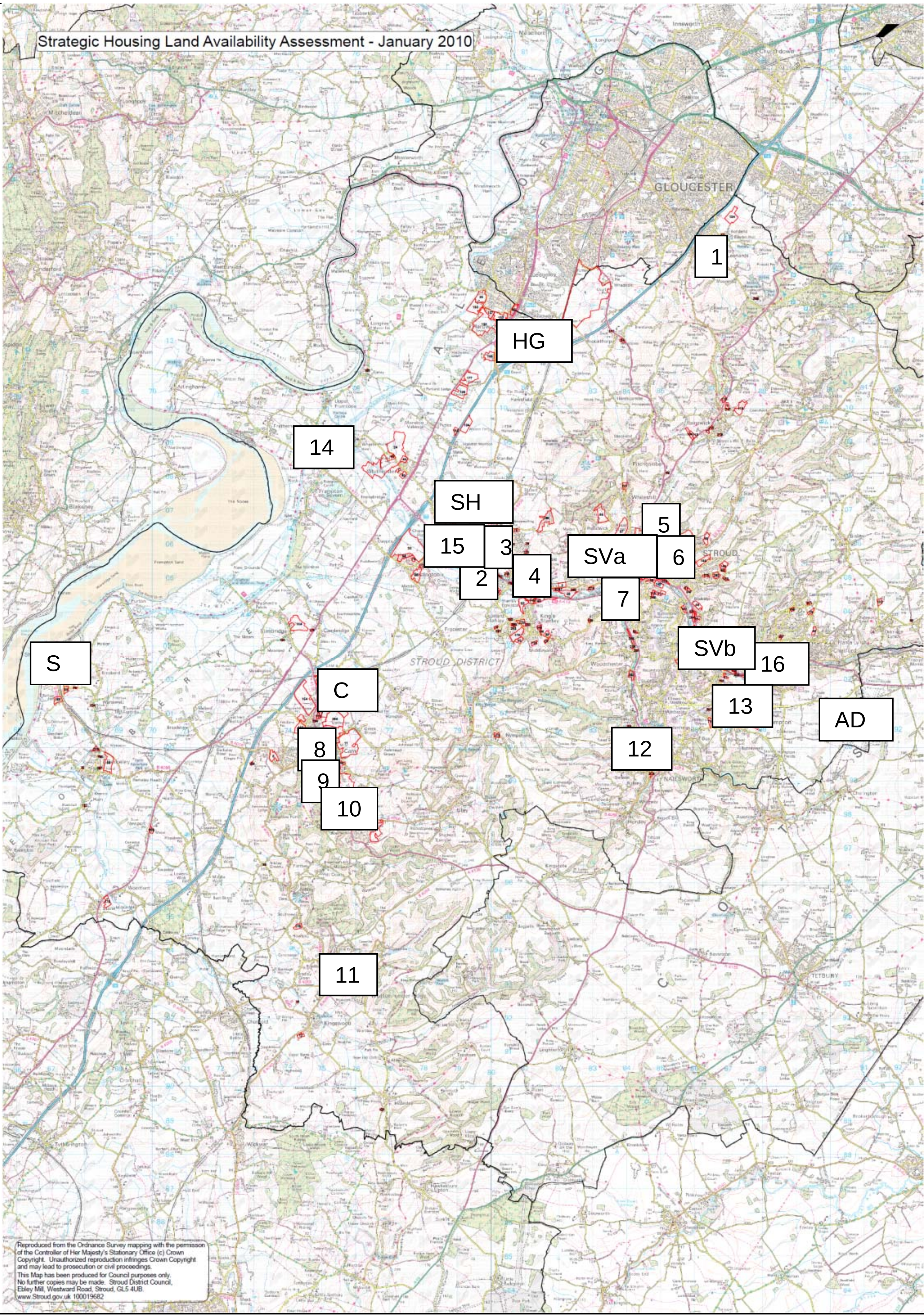
9.14 The above typology was used to develop model development assumptions. We have set out the main characteristics of the modelled sites in the tables below.

9.15 It is important to note that these are modelled sites and not actual sites. These modelled typologies have been informed by the sites included in the SHLAA, both in terms of scale and location. A proportion of the housing to come forward over the plan period will be on smaller sites so several smaller sites have been included.

9.16 The regeneration of the Stroud Valleys is an important part on the Plan. Within the valleys there are a number of significant residential sites for development. We have included several of these in our modelling.

9.17 We have shown the approximate location of each site on the following plan.

Figure 9.1 Approximate residential site locations



Source: Page 10 Local Plan

Table 9.4 Summary of modelled sites			
Site	Details		Notes
1 Rural North Upton St Leonards	Units	178	Mix of family housing on greenfield site in agricultural use. 70% net developed (5.95ha) Sensitive location AONB. Allow £200,000 for site clearance.
	Area (Gross ha)	8.5	
	Density (units/ha)	30	
2 Town Edge Stonehouse	Units	44	Mix of family housing on greenfield site in paddock use. 80% net developed (0.99ha) Sensitive location AONB.
	Area (Gross ha)	1.24	
	Density (units/ha)	45	
3 Infill Stonehouse	Units	20	Development of flats on small cleared brownfield site. Allow £50,000 for raised floor levels for flooding.
	Area (Gross ha)	0.2	
	Density (units/ha)	100	
4 Infill Stonehouse	Units	80	Mix of family housing on greenfield site as 2 and 3 bed terraced and flats. 80% net developed (1.6 ha) Allow £100,000 to resolve access.
	Area (Gross ha)	2	
	Density (units/ha)	50	
5 Town Edge Stroud	Units	395	Mix of family housing with emphasis detached and semis. Good access, constrained design due to AONB. 70% net developed (11.2ha).
	Area (Gross ha)	16	
	Density (units/ha)	35	
6 Infill Stroud	Units	98	Mix of family housing on greenfield site as paddock. Mix of 2 and 3 bed terraced and semi. 80% net developed (2.8 ha) Allow £100,000 to resolve potential flood issues access.
	Area (Gross ha)	3.5	
	Density (units/ha)	35	
7 Infill Stroud	Units	20	Mix of flats and terrace on garden land. No known abnormals.
	Area (Gross ha)	0.4	
	Density (units/ha)	50	
8 Infill Cam	Units	72	Current industrial site – allow £400,000 for site clearance. Assume mix of terrace and semi detached. 80% net developed (1.8ha).
	Area (Gross ha)	2.25	
	Density (units/ha)	40	
9 Town Edge Cam	Units	84	Current paddock site constrained by streams and potential flooding – assume mix of terrace and semi detached. 70% net developed (2.1ha).
	Area (Gross ha)	3	
	Density (units/ha)	40	
10 Infill Dursley	Units	18	Development of flats and terrace on small cleared brownfield site – currently in garage use. Allow £150,000 site clearance.
	Area (Gross ha)	0.3	
	Density (units/ha)	60	

Table 9.4 Summary of modelled sites (continued)			
11 Rural South Wotton Under Edge	Units	13	Mix of family housing with emphasis detached and semis. Good access. 80% net developed (0.36ha). Current residential use – allow £25,000 for site clearance.
	Area (Gross ha)	0.45	
	Density (units/ha)	35	
12 Rural East Nailsworth	Units	35	Mix of terrace and semi detached. Current greenfield in paddock use. 80% developed (1ha). Direct road access.
	Area (Gross ha)	1.25	
	Density (units/ha)	35	
13 Rural East Minchinhampton	Units	56	Mix of family housing with emphasis detached and semis. Good access, 20% open space (1.6ha).
	Area (Gross ha)	2	
	Density (units/ha)	35	
14 Rural West Frampton	Units	105	Larger units on small sensitive greenfield site. Direct access to main road. 20 of site constrained – assume 70% developed (3.5ha).
	Area (Gross ha)	5	
	Density (units/ha)	30	
15 Valley Bottom Stroud	Units	50	Part of the Stroud Valleys Strategic Sites. Allow £250,000 site preparation. Mix of family housing. Includes employment uses – not modelled.
	Area (Gross ha)	1.52	
	Density (units/ha)	33	
16 Valley Bottom Thrupp	Units	30	Part of the Stroud Valleys Strategic Sites. Includes town centre uses – not modelled. Allow £150,000 for site preparation. High density development of terraces and flats.
	Area (Gross ha)	0.45	
	Density (units/ha)	66	

Source: HDH 2013. Note density calculated on net developable area

9.18 The gross and net areas and the site densities as presented to the first consultation event are summarised below:

Table 9.5 Modelled Site development assumptions											
Number	Site				Units	Gross Area	Net Area	Density	Average Unit Size		Density
						ha	ha	Units/net ha	m2	m2	m2/ha
1	Rural North	Upton St Leonards	Green	Agricultural	178	8.50	5.95	29.92	84.94	15,120	2,541
2	Town Edge	Stonehouse	Green	Paddock	44	1.24	0.99	44.44	81.70	3,595	3,631
3	Infill	Stonehouse	Brown	Carpark	20	0.20	0.20	100.00	67.75	1,355	6,775
4	Infill	Stonehouse	Green	Paddock	80	2.00	1.60	50.00	69.40	5,552	3,470
5	Town Edge	Stroud	Green	Agricultural	395	16.00	11.20	35.27	84.36	33,321	2,975
6	Infill	Stroud	Green	Paddock	98	3.50	2.80	35.00	79.50	7,791	2,783
7	Infill	Stroud	Green	Garden	20	0.40	0.40	50.00	73.50	1,470	3,675
8	Infill	Cam	Brown	Industrial	72	2.25	1.80	40.00	77.47	5,578	3,099
9	Town Edge	Cam	Green	Paddock	84	3.00	2.10	40.00	78.15	6,565	3,126
10	Infill	Dursley	Brown	Garage	18	0.30	0.30	60.00	73.89	1,330	4,433
11	Rural South	Wotton Under Edge	Green	Residential	13	0.45	0.36	36.11	85.96	1,118	3,104
12	Rural East	Nailsworth	Green	Paddock	35	1.25	1.00	35.00	85.84	3,005	3,005
13	Rural East	Minchinhampton	Green	Agricultural	56	2.00	1.60	35.00	80.20	4,491	2,807
14	Rural West	Frampton	Green	Paddock	105	5.00	3.50	30.00	76.68	8,052	2,300
					1218	46.09	33.80	36.04	80.74	98,341	2,909

Source: HDH 2013. Note: Floorspace density figures are rounded

9.19 Through the consultation process it was suggested that the development density on greenfield sites should not generally exceed £2,800/m2 and that the densities on sites 2, 3, 4, 7 and 10 were too high. We have revisited these as follows:

Table 9.6 Revised Modelled Site development assumptions									
Number		Site	Units	Gross Area	Net Area	Density	Average Unit Size		Density
				ha	ha	Units/ha	m2	m2	m2/ha
1	Rural North	Upton St Leonards	178	8.50	5.95	29.92	84.94	15,120	2,541
2	Town Edge	Stonehouse	36	1.24	0.99	36.36	82.25	2,961	2,991
3	Infill	Stonehouse	20	0.20	0.20	100.00	67.75	1,355	6,775
4	Infill	Stonehouse	65	2.00	1.60	40.63	69.62	4,525	2,828
5	Town Edge	Stroud	384	16.00	11.20	34.29	84.39	32,405	2,893
6	Infill	Stroud	95	3.50	2.80	33.93	82.73	7,859	2,807
7	Infill	Stroud	20	0.40	0.40	50.00	73.50	1,470	3,675
8	Infill	Cam	64	2.25	1.80	35.56	77.78	4,978	2,766
9	Town Edge	Cam	70	3.00	2.10	33.33	81.09	5,676	2,703
10	Infill	Dursley	18	0.30	0.30	60.00	73.89	1,330	4,433
11	Rural South	Wotton Under Edge	13	0.45	0.36	36.11	85.96	1,118	3,104
12	Rural East	Nailsworth	32	1.25	1.00	32.00	88.94	2,846	2,846
13	Rural East	Minchinhampton	56	2.00	1.60	35.00	80.20	4,491	2,807
14	Rural West	Frampton	103	5.00	3.50	29.43	77.96	8,030	2,294
15	Valley Bottom	Stroud	50	2.01	1.52	32.89	81.68	4,084	2,687
16	Valley Bottom	Thrupp	30	0.45	0.45	66.67	74.10	2,223	4,940
			1,234	**48.55**	**35.77**	**34.50**	**81.42**	**100,469**	**2,809**

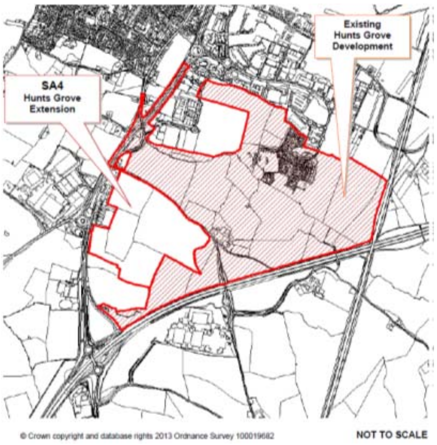
Source: HDH 2013. Note: Floorspace density figures are rounded

9.20 It was confirmed through the consultation process that these assumptions were realistic. The modelling does not exactly follow the density assumptions used in the SHLAA or the policy as the modelling is based on the sites within the SHLAA. The assumptions were presented to the stakeholders through the consultation process and there was a consensus that the amount of development – expressed as m^2/ha was appropriate and representative of the type of development coming forward in Stroud District.

9.21 In order to tailor the appraisals to the local circumstances we have applied the geographically appropriate affordable housing targets and prices.

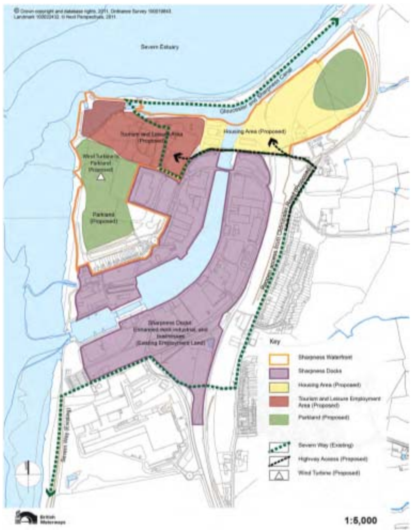
Actual Residential Development Sites

9.22 In addition to the modelled sites we have also assessed four Strategic Sites. We included the land to the West of Stonehouse in this modelling although this has not been included in the latest iteration of the Local Plan. The location of these are also shown in the map at Figure 8.1.

Table 9.7a Summary Strategic Sites - Hunts Grove			
Site	Details		Notes
Hunts Grove Hardwick Site HG	Units	500	Part consented major extension to the south of Gloucester. Consented part started on site.
	Area (Gross ha)	26	
	Density (units/ha)	30	
Known Infrastructure	• Infrastructure costs from IDP £6,255,205 (£12,510/unit) • New access from A38 required (via existing extension) • New sportsfields etc • Bus stops and infrastructure		
Constraints	• No overriding constraints but ecology, archaeology, ground conditions, flooding access, services and visual impact but developer has advised all over-comeable. • To include neighbourhood shopping area • Possible need for medical facility • Incorporate park and ride scheme • Assume 60% net developable.		
Development mix			• Residential scheme with a mix of family housing on 16.6ha net developable area (63% developable) (30 units per ha). • HC3 requires 2% (10 units) to be self-build. We have assumed that the developer will sell fully serviced plots and overall this will be cost neutral. • CP12 requires inclusion of retail within the scheme. All £100,000 net costs.

Source: Various

9.23 The site promoter produced a position statement in April 2013. This does not contain any viability assessments. We have modelled this site and prepared a high level development appraisal based on the limited information provided by the site promoter and the Council.

Table 9.7b Summary Strategic Sites - Sharpness Dock			
Site	Details		Notes
Sharpness Dock Newtown Site SD	Units	300	Major regeneration scheme of historic docks. Currently in a wide range of existing uses.
	Area (Gross ha)	8.4	
	Density (units/ha)	30	
Known Infrastructure	• Infrastructure costs from IDP £3,000,340 (£10,001/unit)		
Constraints	• De-contamination of gas-works • Land assembly • The site's promoters have stated[22] that employment uses are not viable		
Development Mix			• up to c 30 holiday chalets and c 50 camping site "units" • up to c 50 high density dwellings and c 200 dwellings in a mix of densities over 13 ha • a hotel with restaurant

Source: Various

9.24 The site promoter has prepared a viability statement based on the following:

- up to c 30 holiday chalets and c 50 camping site "units"
- up to c 50 high density dwellings and c 200 dwellings in a mix of densities over the c 13 ha or so of land capable of and suited to housing development without adverse impacts on the landscape
- a hotel with restaurant (taken as neutral in the appraisal)
- a mix of landscape works to create the community and tourism amenities
- an allowance for the abnormal works and the basin

[22] Canal And River Trust Position Paper 22nd April 2013

- an allowance for the expansion of the marina and supporting infrastructure (landscape, access, parking)
- estimates for the costs of the access infrastructure
- allowances for conservation and enhancement of the heritage interest, including investment in the pleasure grounds
- allowances for the lease reversions
- allowances for site preparation
- allowances for infrastructure upgrades on the "island" (west of the high level bridge).

9.25 The site promoter has concluded:

Subject to the assumptions adopted and the further work to come, the appraisals show that the Estate Strategy is deliverable and viable. No specific allowance was made for affordable housing, and that work remains to be done.

9.26 We have reviewed the assumptions (but not the calculations) in this viability statement[23] and on the whole they are within the range we would expect and in line with those adopted in this report. It is quite clear that this is an exceptionally complex development with a number of distinctly different elements and is centred around the conservation of the historic docks. The assessment includes over £10,650,000 of infrastructure costs and although it is difficult to make direct comparisons it would appear that the £2,000,000 of infrastructure identified in the IDP and set out in Table 7.2 are not included in the appraisals.

9.27 The viability statement concludes thus:

1.4 Results of viability assessment

1.4.1 The total residual land value generates a margin over the infrastructure costs – after developer's on-site costs and return – of about £0.6m, equivalent to an average land value of about £63,000 per ha in the north of the site and £22,000 per ha in the south.

1.4.2 While the development proposals are viable, the return to the Trust itself is marginal after the contribution to affordable housing. The appraisal on the assumptions adopted suggests that any additional cost burdens in the form of infrastructure or planning policy contribution will compromise viability.

1.4.3 The viability appraisal will need to be kept up to date as the proposals develop. The scheme is a large one and will be developed over a period. The viability assessment set out here is necessarily a snapshot at this point in time.

9.28 Based on this we do have some concerns as to how readily this site will come forward but we understand from the Council that the owners are actively pursuing a mechanism for delivery. It is our understanding that the residential elements are viable when looked at in

[23] Prepared by Peter Brett Associates and dated 7th June 2013

isolation, however it would be neither practical or desirable to bring these forward without the other parts of the project if the overall objectives of the scheme are to be realised.

9.29 We understand that the anticipated rates of delivery are modest and realistic at just 45 dwellings over the first five years of the plan, just 25 units per year over the next 5 years of the plan (i.e. 125 units in years 6 to 10 years) and then 26 per year over the five years (i.e. 130 units in years 11 to 15).

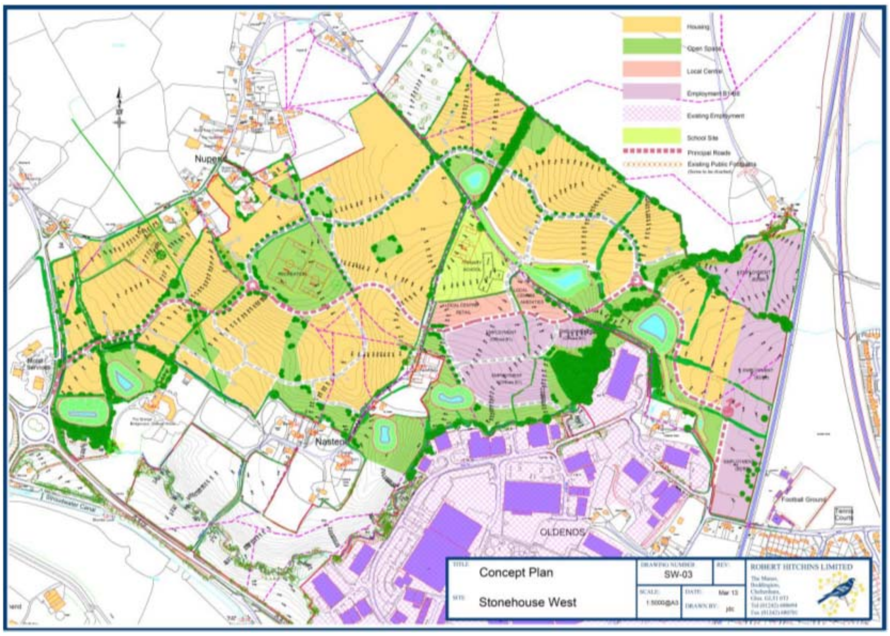
9.30 It may be necessary for the Council to be flexible over the affordable housing requirements on this site and to give consideration as to whether a site specific CIL rate should be set[24]. If a site specific CIL rate is set, further and more detailed viability work would have to be undertaken with the site's promoters to ensure that the developer does not receive an unfair state aid. This is a complex area and beyond the scope of this report, we would recommend that the Council takes further advice in this regard.

9.31 We have not carried out further analysis of this site.

[24] See Paragraph 34 of the April 2013 CIL Guidance that says:
Charging authorities can set differential levy rates for different geographical zones provided that those zones are defined by reference to the economic viability of development within them. In some cases, charging authorities could treat a major strategic site as a separate geographical zone where it is supported by robust evidence on economic viability.

<table>
<tr><th colspan="4">Table 9.7c Summary Strategic Sites - West of Stonehouse</th></tr>
<tr><td>Site</td><td colspan="2">Details</td><td>Notes</td></tr>
<tr><td>West of Stonehouse</td><td>Units</td><td>1500</td><td rowspan="3">Large greenfield site</td></tr>
<tr><td>Stonehouse</td><td>Area (Gross ha)</td><td>90.39</td></tr>
<tr><td>Site SH</td><td>Density (units/ha)</td><td>34</td></tr>
<tr><td>Known Infrastructure</td><td colspan="3">

Infrastructure Costs from IDP £15,869,739 (£10,580/unit)
New double entry primary school
New sports fields etc.
Bus stops and infrastructure
Contributions to bus services
</td></tr>
<tr><td>Constraints</td><td colspan="3">

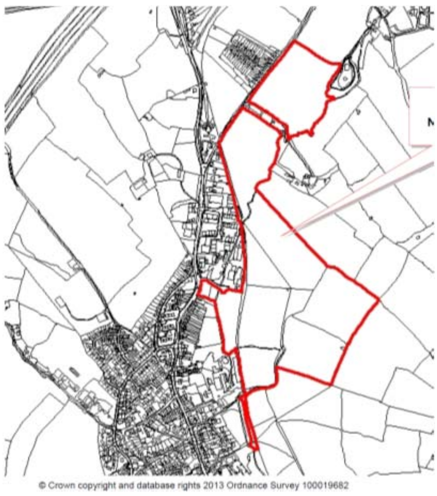
Allow for buffer around Nastend and Nupend
12.4 ha will be retained in their existing uses with ‘ecological enhancement’ as green infrastructure.
</td></tr>
<tr><td>Development mix</td><td colspan="3">


Residential 43ha 1,500 Mixed family housing (35/ha)
Employment 11ha 22,040m^2 office
21,200m^2 Industrial/distribution
Retail 1.4ha 5,000m^2
Primary school 2ha
HC3 requires 2% (10 units) to be self-build. We have assumed that the developer will sell fully serviced plots and overall this will be cost neutral.
</td></tr>
</table>

9.32 Source: Various

9.33 At the time of this report this is a reserve site and not an allocation.

9.34 The site promoter has produced various statements, including the above masterplan. This does not contain any viability assessments. We have modelled this site and prepared a high level development appraisal based on the information provided by the site promoter and the Council.

<table>
<tr><th colspan="5">Table 9.7d Summary Strategic Sites - North East of Cam</th></tr>
<tr><td>Site</td><td colspan="2">Details</td><td colspan="2">Notes</td></tr>
<tr><td>North East of Cam</td><td>Units</td><td>450</td><td colspan="2" rowspan="3">Large greenfield site</td></tr>
<tr><td>Cam</td><td>Area (Gross ha)</td><td>40</td></tr>
<tr><td>Site C</td><td>Density (units/ha)</td><td>30</td></tr>
<tr><td>Known Infrastructure</td><td colspan="4">Infrastructure Costs from IDP £4,953,292 (£11,007/unit)
New Bridge over CAM
Bus stops and Infrastructure
New community buildings
New sports fields etc.
Improvements to Cam station – assume CIL</td></tr>
<tr><td>Constraints</td><td colspan="4">To include 30% affordable
Potential to join A4135 to Box Lane</td></tr>
<tr><td>Development mix</td><td colspan="3">
</td><td>Residential 16.6ha Mixed family housing
Employment11.4ha 1/3 office / 2/3 Industrial/distribution
HC3 requires 2% (10 units) to be self-build. We have assumed that the developer will sell fully serviced plots and overall this will be neutral.</td></tr>
</table>

Source: Various

9.35 The site promoter also produced a Position Statement (April 2013). This is a vision document and does not contain any viability assessments – although we have been advised by the site promoter's agents that they have done a substantial amount of viability work. We have been provided with some of this. At the time of writing this report, the information has been provided in confidence. We have modelled this site and prepared a high level development appraisal based on the limited information that is available, however we do recommend that the Council works closely with the site promoter to clarify the details of infrastructure delivery and the relationship between the residential and non-residential elements in terms of viability.

<table>
<tr><th colspan="4">Table 9.7e Summary Strategic Sites- Stroud Valleys</th></tr>
<tr><td>Site</td><td colspan="2">Details</td><td>Notes</td></tr>
<tr><td rowspan="3">Stroud Valleys</td><td>Units</td><td>300</td><td rowspan="3">Made up from the following separate sites:
• Land at Dudbridge SA1a 4.02 ha
• Cheapside SA1b 0.45 ha
• Ham Mill SA1c 2.01 ha
• Brimscombe Mill SA1d 1.71 ha
• Brimscombe Port SA1e 3.85 ha
• Wimberley Mills SA1f 2.60 ha
• Dockyard Works SA1g 1.45 ha</td></tr>
<tr><td>Area (Gross ha)</td><td>16.09</td></tr>
<tr><td>Density (units/ha)</td><td>-19</td></tr>
</table>

Source: Various

9.36 The Stroud Valleys strategic allocation is quite different to the other strategic sites as it is an area of growth made up from 7 separate sites, rather than a single specific site. The Council has developed an overall strategy to bring forward many of the ex-industrial sites within the Stroud Valleys and is considering them together as, when combined, these sites will impact on the infrastructure requirements together. As this allocation contains a number of small sites, rather than a single, large site, we have modelled the residential element of two sites that are representative of the site typologies that make up this strategic area. These are included as modelled sites 15 and 16 in that section of the report rather than with the strategic sites.

a. SA1a Land at Dudbridge Canal related tourism development, retail and employment uses

b. SA1b Cheapside 30 dwellings, town centre and canal uses

c. SA1c Ham Mill 50 dwellings and employment uses

d. SA1d Brimscombe Mill 40 dwellings and employment uses

e. SA1e Brimscombe Port 100 dwellings, canal related tourism development and employment uses

f. SA1f Wimberley Mills 50 dwellings and employment B1-B8 uses

g. SA1g Dockyard Works 30 dwellings and employment B1-B8 uses

9.37 In due course development briefs will be prepared that will detail the way in which the land uses and infrastructure will be developed in an integrated and co-ordinated manner. These will include:

a. The provision of 30% affordable dwellings, unless viability testing indicates otherwise

b. Contributions to education and community uses to meet the needs of the development

c. Accessible natural greenspace, public outdoor playing space and/or appropriately landscaped canal public realm space

d. Landscaping incorporating existing hedgerows and trees

e. The acceptable management and disposal of surface water including sustainable urban drainage systems (SuDs) to meet the requirements of the Environment Agency

f. Cycle and pedestrian routes along the canal and river corridors linking up with the existing network

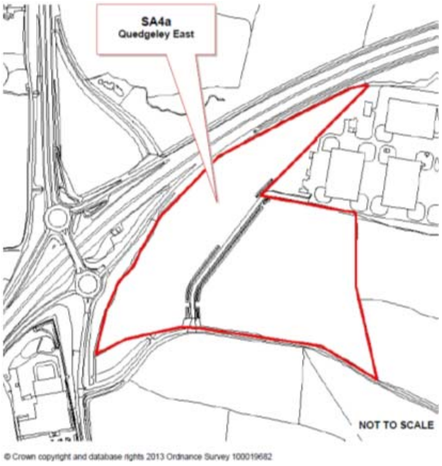
g. Improvements to or restoration of the related canal and towpaths

h. Contributions towards bus services to improve bus frequencies and quality and to connect the development with Stroud and adjoining settlements.

9.38 The Plan sets out the phasing arrangements that will be put in place to ensure that employment land is developed and completed in parallel with housing land completions. There are common policy requirements for all sites, the following list, provided by the Council, identifies the key priorities for each site:

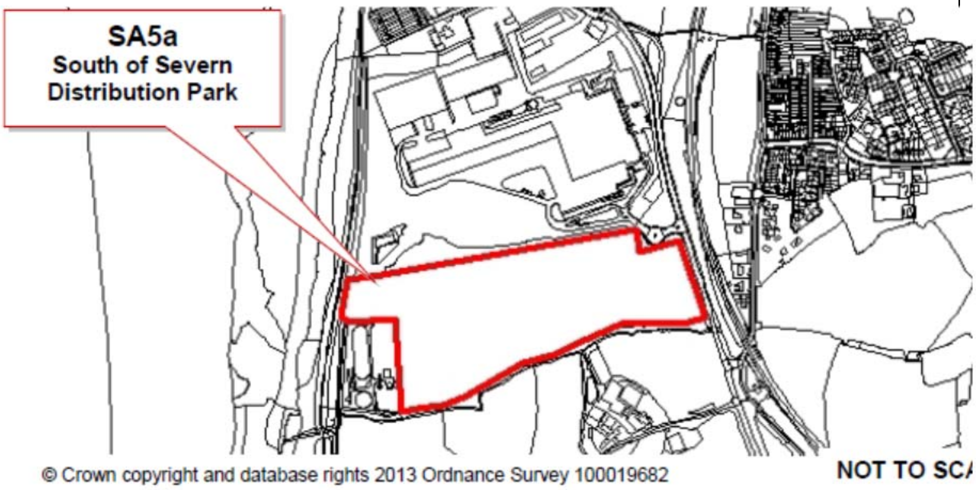
- Land at Dudbridge has potential in addition to housing and employment provision, for canal related tourism and retail development provided it is compatible with the retail hierarchy. A new access to the site will be achieved from Dudbridge Road. It will be important to retain and enhance listed buildings and Redlar frontage buildings.
- Cheapside is located adjacent to the town centre and town centre uses and housing are appropriate here. Development will need to enhance the public realm within the canal corridor and encourage links with the town centre. It will be important to retain and enhance listed buildings.
- Ham Mills has potential for housing and high quality office space focussed on achieving the conservation and adaptation of the historic mill and enhancement of its setting.
- Brimscombe Mill has potential for both housing and employment redevelopment to achieve environmental enhancements and to create a restored mill pond.
- Brimscombe Port has opportunities to provide canal related facilities including moorings on a reinstated stretch of water, enhancing listed buildings, providing new visitor facilities as well as housing and high quality employment development. A new access from the A419 to the east of the site will be achieved to improve site accessibility.
- Wimberley Mills has potential for comprehensive redevelopment for housing and high quality employment space, including opportunities to deculvert the river corridor.

9.39 The sites lie within the Industrial Heritage Conservation Area and specific policy and design guidance is contained within the Industrial Heritage Conservation Area Management Proposals SPD.

<table>
<tr><th colspan="5">Table 9.7f Summary Strategic Employment - Quedgeley East</th></tr>
<tr><td>Site</td><td colspan="2">Details</td><td colspan="2">Notes</td></tr>
<tr><td rowspan="3">Quedgeley East
Harwick</td><td>Units</td><td></td><td colspan="2" rowspan="3">Greenfield site</td></tr>
<tr><td>Area (Gross ha)</td><td>13</td></tr>
<tr><td>Density (units/ha)</td><td></td></tr>
<tr><td>Known Infrastructure</td><td colspan="4">• Contributions to be sought to improve connectivity to wider area – Allow £200,000</td></tr>
<tr><td>Constraints</td><td colspan="4">• None – access via existing employment area</td></tr>
<tr><td>Development mix</td><td colspan="3">
</td><td>• Employment
• 1/3 office
• 2/3 Industrial/distribution</td></tr>
</table>

Source: Various

9.40 The modelling is based on the above, taken from the emerging policy documents.

Table 9.7g Summary Strategic Employment - South of Severn Distribution Park			
Site	Details		Notes
South of Severn Distribution Pk Sharpness	Units		Greenfield site
	Area (Gross ha)	9.8	
	Density (units/ha)		
Known Infrastructure	• The development of the site will provide contributions to off-site highway works including public transport, pedestrian and cycle links to Newtown, Berkeley and Dursley.		
Constraints	• Proximity to sewage works		
Development mix	 • Employment • 1/3 office • 2/3 Industrial/distribution		

Source: Various

9.41 The modelling is based on the above, taken from the emerging policy documents.

10. Appraisal Results

10.1 At the start of this chapter it is important to stress that the results of the appraisals do not, in themselves, determine the policies. The study is testing the *cumulative impact* of the policies in the Local Plan. The results of this study are one of a number of factors that the Council will consider, including the need for infrastructure, other available evidence, such as the Council's track record in delivering affordable housing (see **Appendix 1**) and collecting payments under s106, and, importantly, the results of the consultation process with developers. The purpose of the appraisals is to provide an indication of the viability of different types of sites in different areas under different scenarios. In due course, the Council will have to take a view as to whether or not to proceed with the Local Plan.

10.2 The appraisals use the Residual Valuation approach – that is, they are designed to assess the value of the site after taking into account the costs of development, the likely income from sales and/or rents and an appropriate amount of developers' profit. The payment would represent the sum paid in a single tranche on the acquisition of a site. In order for the proposed development to be described as viable, it is necessary for this value to exceed the value from an alternative use. We have discussed this in detail in Chapter 6.

10.3 In order to assist the Council and to inform the consultation process, we have run several sets of appraisals. The appraisals main output is the Residual Value. The Residual Value is calculated using the formula set out in Chapter 2.

10.4 The initial appraisals are based on the assumptions set out in the previous chapters of this report, including the various affordable housing requirements set out in the Council's policies – with the base being to CfSH Level 4. We have run further sets of appraisals assuming no provision of affordable housing and with a range of levels of developer contributions.

10.5 Development appraisals are also sensitive to changes in price so appraisals have been run with various changes in the cost of construction and an increase and decrease in prices. We have assumed that the developer makes a s106 contribution in line with the current norms. We have then considered a number of different levels.

10.6 As set out above, for each development type we have calculated the Residual Value. In the tables in this chapter we have colour coded the results using a simple traffic light system:

a. **Green** **Viable** – where the Residual Value exceeds the Existing Use Value plus the appropriate uplift to provide a competitive return for the landowner.

b. **Amber** **Marginal** – where the Residual Value exceeds the Existing Use Value, but not the Existing Use Value plus appropriate uplift to provide a competitive return for the landowner. These sites should not be considered as viable as it is unlikely that the land would be made available to a developer at this level.

c. **Red** **Non-viable** – where the Residual Value does not exceed the Existing Use Value.

Financial appraisal approach and assumptions

10.7 On the basis of the assumptions set out in the earlier chapters, we prepared financial appraisals for each of the modelled residential sites using a bespoke spreadsheet-based financial analysis package.

10.8 Our appraisals considered various options in the context of the Local Plan. We have separated the residential and non-residential development before combining the results for the mixed use sites at the end of this chapter.

Appraisal results – Modelled SHLAA Sites (including Stroud Valleys)

10.9 We produced financial appraisals based on the build costs, abnormal costs, and infrastructure costs and financial assumptions for the different options. The detailed appraisal base results for the affordable housing targets are set out in the attached **Appendix 7**.

Base Appraisals – full current policy requirements

10.10 These initial appraisals are based on the base options:

a.	Affordable Housing	30% as 50% Affordable Rent and 50% Intermediate.
b.	Environmental Standards	Building Regulations (Part L), CfSH 4 and Lifetime Homes.
c.	CIL and s106	£2,500 per unit (market and affordable).
d.	Abnormals	As modelled.
e.	Developers' Return	20% of GDV.
f.	Public Art	£10,000 on sites over 1ha and £50,000 on sites over 5ha.

10.11 The following table shows the Residual Values for the modelled residential sites:

Table 10.1 Modelled Sites, Residual Values –Base Appraisals

			Area		Units	Residual Value		
			Gross ha	Net ha		£/ha Gross	£/ha Net	£/site
Site 1	Rural North	Upton St Leonards	8.5	5.95	178	576,426	823,466	4,899,621
Site 2	Town Edge	Stonehouse	1.24	0.99	36	737,159	923,310	914,077
Site 3	Infill	Stonehouse	0.2	0.2	20	12,757	12,757	2,551
Site 4	Infill	Stonehouse	2	1.6	65	546,546	683,182	1,093,092
Site 5	Town Edge	Stroud	16	11.2	384	839,998	1,199,997	13,439,966
Site 6	Infill	Stroud	3.5	2.8	95	529,240	661,550	1,852,339
Site 7	Infill	Stroud	0.4	0.4	20	1,155,864	1,155,864	462,346
Site 8	Infill	Cam	2.25	1.8	64	206,316	257,895	464,211
Site 9	Town Edge	Cam	3	2.1	70	803,197	1,147,424	2,409,591
Site 10	Infill	Dursley	0.3	0.3	18	-398,650	-398,650	-119,595
Site 11	Rural South	Wotton Under Edge	0.45	0.36	13	1,276,205	1,595,257	574,292
Site 12	Rural East	Nailsworth	1.25	1	32	1,199,492	1,499,365	1,499,365
Site 13	Rural East	Minchinhampton	2	1.6	56	1,169,429	1,461,786	2,338,858
Site 14	Rural West	Frampton	5	3.5	103	521,213	744,590	2,606,066
Site 15	Valley Bottom	Stroud	2.01	1.52	50	276,086	365,088	554,933
Site 16	Valley Bottom	Thrupp	0.45	0.45	30	385,166	385,166	173,324

Source: HDH 2013

10.12 The residual value on all but one of the sites is positive and in most cases very substantial. This is interesting but does not give an indication of viability on its own. In the following table we have compared the Residual Value with the Viability Threshold (see Chapter 6). We take this opportunity to highlight the difference between the Residual value per gross and per net ha – those sites with a higher per net ha figure being those with an element of open space or being subject to other development constraint.

Table 10.2 Modelled Sites Base Appraisals. Residual Value compared to Viability Threshold					
			Alternative Use Value	Viability Threshold	Residual Value
			£/ha	£/ha	£/ha
Site 1	Rural North	Upton St Leonards	25,000	380,000	576,426
Site 2	Town Edge	Stonehouse	50,000	410,000	737,159
Site 3	Infill	Stonehouse	400,000	480,000	12,757
Site 4	Infill	Stonehouse	50,000	410,000	546,546
Site 5	Town Edge	Stroud	25,000	380,000	839,998
Site 6	Infill	Stroud	50,000	410,000	529,240
Site 7	Infill	Stroud	800,000	960,000	1,155,864
Site 8	Infill	Cam	400,000	480,000	206,316
Site 9	Town Edge	Cam	50,000	410,000	803,197
Site 10	Infill	Dursley	400,000	480,000	-398,650
Site 11	Rural South	Wotton Under Edge	800,000	960,000	1,276,205
Site 12	Rural East	Nailsworth	50,000	410,000	1,199,492
Site 13	Rural East	Minchinhampton	25,000	380,000	1,169,429
Site 14	Rural West	Frampton	25,000	380,000	521,213
Site 15	Valley Bottom	Stroud	400,000	480,000	276,086
Site 16	Valley Bottom	Thrupp	400,000	480,000	385,166

Source: HDH 2013

10.13 From the above we can see that for five of the modelled sites (i.e. sites 1 to 16) the Residual Value does not exceed the Viability Threshold indicating that the sites are likely to be unviable. These are all brownfield sites with significant abnormal costs. Site 3 is modelled to be within the relatively low value area of Stonehouse and is based on a scheme of flats on a small site that is subject to some flooding. There are a number of sites within the SHLAA that are of this type however there is little expectation that they will deliver a large element of the Council's housing requirements. Both sites 8 and 10 are shown as unviable. Again both are brownfield sites, 8 being an existing factory with significant site clearance costs and 10 is a garage site (significantly smaller than 8) with the associated costs of site clearance. Both are in the lowest value areas. The final two unviable sites are 15 and 16 and are representative of the Stroud Valleys Strategic Allocations being loosely modelled on the residential elements. These do show a significant Residual Value – but not one that is above the viability threshold. Both have abnormal costs in terms of site clearance and both are in the lowest value areas. As the regeneration of the Stroud Valleys continues the general environs will improve and the values will see a relative increase and this will improve the development viability. Sites 5, 6 and 7 are modelled on sites within Stroud – albeit away from the valley floors in the better priced areas.

10.14 These unviable sites represent a small proportion of the sites identified in the SHLAA as having potential for development. It is important to note that the SHLAA is a technical document to inform the plan making process, and that not all the sites in the SHLAA will be suitable for development.

10.15 This report must not be read and used in isolation. It is clear from the development that is happening on the ground and being pursed through the planning system, that development of brownfield sites is coming forward and is happening – and is providing affordable housing. We have been provided with development appraisals based on actual sites in the Stroud Valleys that were prepared to support the development management process that show sites within the Valley Bottom areas are viable.

10.16 On this basis we can conclude, in relation to the non-strategic land allocations (including the strategic allocation in the Stroud Valleys), that the policies in the Local Plan do impact on viability, but not to such an extent as to put the Plan at 'serious risk'.

10.17 In order to fully inform the plan making process we have run alternative appraisals with differing levels of affordable housing, different levels of developer contributions and under different price change scenarios.

Various affordable housing targets

10.18 In order to consider the sensitivity of viability to the affordable housing requirements we have modelled a range of different targets. The appraisals are based on the following assumptions:

a.	Affordable Housing	Base as 30% as 50% Affordable Rent and 50% Intermediate and variables as shown.
b.	Environmental Standards	Building Regulations (Part L), CfSH 4 and Lifetime Homes.
c.	CIL and s106	£2,500 per unit (market and affordable).
d.	Abnormals	As modelled.
e.	Developers' Return	20% of GDV.
f.	Public Art	£10,000 on sites over 1ha and £50,000 on sites over 5ha.

10.19 The following table shows the Residual Values for a range of different affordable housing targets:

Table 10.3 Affordable Housing targets. Residual value compared to Viability Threshold (£/ha)									
			Alternative Use Value	Viability Threshold	Residual Value				
			£/ha	£/ha	0%	10%	20%	**Base 30%**	30% AR
Site 1	Rural North	Upton St Leonards	25,000	380,000	894,088	788,201	682,313	**576,426**	482,727
Site 2	Town Edge	Stonehouse	50,000	410,000	1,197,052	1,041,447	885,842	**737,159**	592,380
Site 3	Infill	Stonehouse	400,000	480,000	1,350,831	922,337	472,091	**12,757**	-399,856
Site 4	Infill	Stonehouse	50,000	410,000	978,101	834,249	690,397	**546,546**	417,883
Site 5	Town Edge	Stroud	25,000	380,000	1,211,378	1,087,584	963,791	**839,998**	723,782
Site 6	Infill	Stroud	50,000	410,000	869,930	756,366	642,803	**529,240**	454,681
Site 7	Infill	Stroud	800,000	960,000	1,892,406	1,643,240	1,394,074	**1,155,864**	943,748
Site 8	Infill	Cam	400,000	480,000	515,278	414,895	309,628	**206,316**	146,874
Site 9	Town Edge	Cam	50,000	410,000	1,174,056	1,050,437	926,817	**803,197**	696,980
Site 10	Infill	Dursley	400,000	480,000	416,667	147,173	-125,484	**-398,650**	-608,140
Site 11	Rural South	Wotton Under Edge	800,000	960,000	1,832,595	1,647,132	1,461,669	**1,276,205**	1,111,111
Site 12	Rural East	Nailsworth	50,000	410,000	1,711,453	1,540,800	1,370,146	**1,199,492**	1,038,282
Site 13	Rural East	Minchinhampton	25,000	380,000	1,644,417	1,486,088	1,327,759	**1,169,429**	1,033,563
Site 14	Rural West	Frampton	25,000	380,000	801,813	708,280	614,746	**521,213**	447,355
Site 15	Valley Bottom	Stroud	400,000	480,000	606,021	497,512	387,979	**276,086**	200,367
Site 16	Valley Bottom	Thrupp	400,000	480,000	1,190,348	927,091	652,442	**385,166**	192,810

Source: HDH 2013

10.20 All but one site is viable with no requirement for affordable housing. The affordable housing policy incorporates an element of flexibility in the event of a site being rendered unviable through the policy. It is comforting to see that with no affordable housing requirement that almost all sites are viable.

10.21 The delivery of all the affordable housing as Affordable Rent rather than a mix of Affordable Rent and intermediate housing does have an adverse impact on viability, reducing the Residual Values substantially. We would recommend that the Council maintains the current flexibility in the policy.

Different levels of developer contributions

10.22 It is important that development can mitigate any adverse impact that it causes on the local area and infrastructure. We have run a set of appraisals based on the following:

a.	Affordable Housing	30% as 50% Affordable Rent and 50% Intermediate.
b.	Environmental Standards	Building Regulations (Part L), CfSH 4 and Lifetime Homes.
c.	CIL and s106	Base as £1,000 per unit (market and affordable) – variables as shown. It is important to note that in this analysis all the CIL and s106 contributions are shown as being paid in year one. CIL is only applied to market housing, but s106 contributions to all units.
d.	Abnormals	As modelled.
e.	Developers' Return	20% of GDV.
f.	Public Art	£10,000 on sites over 1ha and £50,000 on sites over 5ha.

10.23 The following table shows the Residual Values for a range of different levels of developer.

Table 10.4 Developer Contributions. Residual value compared to Viability Threshold (£/ha)

			Alternative Use Value	Viability Threshold	Residual Value						
					NIL	£1000 +£20/m2	£1000 +£40/m2	£1000 +£60/m2	£1000 +£80/m2	£1000 +£100/m2	**Base £2500/unit**
Site 1	Rural North	Upton St Leonards	25,000	380,000	630,499	583,149	557,428	531,707	505,986	480,264	**576,426**
Site 2	Town Edge	Stonehouse	50,000	410,000	806,452	747,412	713,534	679,655	645,777	611,899	**737,159**
Site 3	Infill	Stonehouse	400,000	480,000	276,143	70,860	-29,068	-128,997	-228,926	-328,854	**12,757**
Site 4	Infill	Stonehouse	50,000	410,000	628,094	563,683	531,892	500,101	472,749	440,656	**546,546**
Site 5	Town Edge	Stroud	25,000	380,000	901,970	847,895	818,609	789,324	760,038	730,752	**839,998**
Site 6	Infill	Stroud	50,000	410,000	597,332	538,550	507,005	475,460	443,915	412,370	**529,240**
Site 7	Infill	Stroud	800,000	960,000	1,271,608	1,179,963	1,127,314	1,074,665	1,022,017	969,368	**1,155,864**
Site 8	Infill	Cam	400,000	480,000	276,409	218,276	186,593	154,910	123,228	93,331	**206,316**
Site 9	Town Edge	Cam	50,000	410,000	861,740	811,740	785,156	758,573	731,990	705,406	**803,197**
Site 10	Infill	Dursley	400,000	480,000	-240,075	-368,706	-435,642	-502,907	-570,171	-637,435	**-398,650**
Site 11	Rural South	Wotton Under Edge	800,000	960,000	1,349,405	1,284,888	1,249,651	1,214,414	1,179,177	1,143,940	**1,276,205**
Site 12	Rural East	Nailsworth	50,000	410,000	1,263,744	1,206,043	1,174,042	1,142,041	1,110,040	1,078,040	**1,199,492**
Site 13	Rural East	Minchinhampton	25,000	380,000	1,239,690	1,180,031	1,148,477	1,116,923	1,085,368	1,053,814	**1,169,429**
Site 14	Rural West	Frampton	25,000	380,000	572,889	529,659	507,100	484,541	461,982	439,423	**521,213**
Site 15	Valley Bottom	Stroud	400,000	480,000	339,103	285,072	256,247	229,599	200,499	171,398	**276,086**
Site 16	Valley Bottom	Thrupp	400,000	480,000	555,556	417,331	345,199	275,757	202,914	130,072	385,166

Source: HDH 2013

10.24 With a £100/m^2 rate of CIL no fewer of the modelled sites are viable than at a total developers' contribution of £2,500 per unit used in the base appraisals. It is clear that reducing the rate of CIL in the low price areas – which is where the brownfield sites prevail, does increase the Residual Value markedly. We have discussed CIL further in Chapter 11 below.

10.25 As set out earlier in this report it is not the purpose of this study to consider what level CIL may be set. It is clear from this analysis that there is scope for residential development in the District to contribute towards delivering infrastructure either under CIL or the s106 regime.

The impact of changes in prices and costs.

10.26 It is important that whatever policies are adopted are not unduly subject to changes in prices and costs. We have therefore tested various variables in this regard.

10.27 In this report we have used the build costs produced by Building Cost Information Service (BCIS). As well as producing estimates of build costs, BCIS also produce various indices and forecasts to track and predict how build costs may change over time. The BCIS forecast a 15% increase in prices over the next 5 years[25]. We have tested a scenario with this increase in build costs.

10.28 As set out in Chapter 4, we are in a current period of uncertainty in the property market. It is not the purpose of this report to predict the future of the market. We have therefore tested four price change scenarios, minus 10% and 5%, and plus 10% and 5%. In this analysis we have assumed all other matters in the base appraisals remain unchanged and are as follows:

a.	Affordable Housing	30% split 70% Affordable Rent and 30% Intermediate housing – applied to all sites.
b.	Environmental Standards	Building Regulations (Part L), CfSH 4 and Lifetime Homes.
c.	CIL and s106	Pre CIL – £2,500 per unit (market and affordable).

[25] See Table 1.1 (Page 6) of in *Quarterly Review of Building Prices* (Issue No 127 – November 2012). 15% calculated on BCIS All-in TPI change from 220 to 254.

d. Abnormals As modelled.

e. Developers' Return 20% of GDV.

10.29 The following table shows the Residual Values for the appraisals subject to a 5% and 10% increase and decrease in sales prices and a 15% increase in build costs:

Table 10.5 Cost and Price Change. Residual value compared to Viability Threshold (£/ha)

			Alternative Use Value	Viability Threshold	Residual Value					
			£/ha	£/ha	BCIS + 10%	Price - 10%	Price - 5%	**Base**	Price + 5%	Price + 10%
Site 1	Rural North	Upton St Leonards	25,000	380,000	349,876	374,705	476,250	**576,426**	676,587	776,749
Site 2	Town Edge	Stonehouse	50,000	410,000	397,095	445,157	591,158	**737,159**	874,867	1,019,497
Site 3	Infill	Stonehouse	400,000	480,000	-1,295,654	-859,150	-418,985	**12,757**	444,500	867,693
Site 4	Infill	Stonehouse	50,000	410,000	223,883	281,780	416,753	**546,546**	680,251	813,957
Site 5	Town Edge	Stroud	25,000	380,000	605,287	609,056	724,666	**839,998**	954,492	1,068,985
Site 6	Infill	Stroud	50,000	410,000	238,075	291,200	410,220	**529,240**	648,259	767,279
Site 7	Infill	Stroud	800,000	960,000	585,507	670,597	913,230	**1,155,864**	1,385,242	1,625,576
Site 8	Infill	Cam	400,000	480,000	-108,444	-26,446	92,077	**206,316**	319,262	434,164
Site 9	Town Edge	Cam	50,000	410,000	551,899	566,489	684,843	**803,197**	921,551	1,039,905
Site 10	Infill	Dursley	400,000	480,000	-1,259,395	-964,731	-681,691	**-398,650**	-123,301	151,539
Site 11	Rural South	Wotton Under Edge	800,000	960,000	942,156	936,475	1,111,111	**1,276,205**	1,450,509	1,624,813
Site 12	Rural East	Nailsworth	50,000	410,000	889,948	885,765	1,042,629	**1,199,492**	1,356,356	1,513,219
Site 13	Rural East	Minchinhampton	25,000	380,000	867,423	866,103	1,017,766	**1,169,429**	1,321,092	1,472,755
Site 14	Rural West	Frampton	25,000	380,000	308,727	336,294	428,754	**521,213**	613,673	706,132
Site 15	Valley Bottom	Stroud	400,000	480,000	-29,370	47,049	162,213	**276,086**	391,497	502,148
Site 16	Valley Bottom	Thrupp	400,000	480,000	-418,019	-194,350	97,305	**385,166**	661,076	944,359

Source: HDH 2013

10.30 The analysis demonstrates that a small change in prices will not adversely impact on deliverability but a larger change will. If there is a large further fall in prices it will be necessary to reconsider the policies in the Plan. We would recommend linking a review in policy (and in due course CIL) to a 10% change in overall house prices.

10.31 It is encouraging to see that a modest increase in house prices bring the Stroud Valley sites into viability.

Appraisal results – Strategic and Reserve Residential Sites

10.32 We produced financial appraisals based on the build costs, abnormal costs, and infrastructure costs and financial assumptions for the different options. Firstly we have looked at the residential elements separately to the employment uses, before bringing these together. The detailed appraisal base results are set out in the attached **Appendix 8**. As set out at the start of this report, the Stroud Valley sites have been covered under the modelled sites above and we have relied on the detailed appraisals submitted by the promoters of the Sharpness Docks (which we have reviewed) in our considerations of the Sharpness Docks strategic area.

Base Appraisals – full current policy requirements

10.33 These initial appraisals are based on the base options:

a.	Affordable Housing	30% as 50% Affordable Rent and 50% Intermediate.
b.	Environmental Standards	Building Regulations (Part L), CfSH 4 and Lifetime Homes.
c.	CIL and s106	£2,500 per unit (market and affordable).
d.	Abnormals	As set out in Chapter 9. Note all the infrastructure costs have been allocated to the residential element.

Hunts Grove	£6,255,205.00
West of Stonehouse	£15,869,739.00
NE of Cam	£4,953,292.00

e.	Developers' Return	20% of GDV.

f. Public Art £50,000

10.34 The following table shows the Residual Values for the residential sites:

Table 10.6 Strategic Sites, Residual Values –Base Appraisals										
					Area		Units	Residual Value		
					Gross ha	Net ha		Gross ha	Net ha	£ site
Site 1	Hunts Grove	Hardwick	Green	Agricultural	28	16.6	500	142,824	240,908	3,999,075
Site 2	West of Stonehouse	Stonehouse	Green	Agricultural	73	44	1,500	130,007	215,693	9,490,496
Site 3	NE of Cam	Cam	Green	Agricultural	30	18	450	180,874	301,456	5,426,211

Source: HDH 2013

10.35 The residual value on all three sites is positive. It is notable that the value per net area and gross area is very different. This is, at least in part, due to the need for the projects to deliver a significant amount of open space and provide land for infrastructure.

10.36 As with the modelled sites this is interesting but does not give an indication of viability on its own. In the following table we have compared the Residual Value with the Viability Threshold.

Table 10.7 Strategic Sites, Base Appraisals. Residual Value compared to Viability Threshold					
			Alternative Use Value	Viability Threshold	Residual Value
			£/ha	£/ha	£/ha
Site 1	Hunts Grove	Hardwick	25,000	380,000	142,824
Site 3	West of Stonehouse	Stonehouse	25,000	380,000	130,007
Site 4	NE of Cam	Cam	25,000	380,000	180,874

Source: HDH 2013

10.37 From the above we can see that these three strategic sites generate a Residual Value that is substantially above the existing use value but not in excess of the viability threshold methodology used in this study. It is important to note that all the infrastructure costs have been allocated to the residential element of the sites and that the full affordable housing targets are being met. These sites represent a large proportion of the new dwelling required over the plan period and it is not necessarily appropriate or possible to consider such large and complex sites in what is a high level study based on relatively little information.

10.38 The above appraisals include all the infrastructure that is required to enable their development and fully mitigate the impact of the schemes and to provide the full (30%) affordable housing target. In order to inform the plan making process we have run further appraisals with different levels of affordable housing and different levels of developer contributions.

Table 10.8 Strategic Sites, Residual value compared to Viability Threshold (£/ha), Full Infrastructure - Varied Affordable								
			Alternative Use Value	Viability Threshold	Residual Value			
					0%	10%	20%	**Base 30%**
Site 1	Hunts Grove	Hardwick	25,000	380,000	348,804	280,675	211,882	**142,824**
Site 3	West of Stonehouse	Stonehouse	25,000	380,000	329,207	263,624	197,125	**130,007**
Site 4	NE of Cam	Cam	25,000	380,000	360,686	300,920	241,154	**180,874**

Source: HDH 2013

Table 10.9 Strategic Sites, Residual value compared to Viability Threshold (£/ha), Full Affordable Varied Infrastructure									
			Alternative Use Value	Viability Threshold	Residual Value				
					0%	25%	50%	75%	**Base 100%**
Site 1	Hunts Grove	Hardwick	25,000	380,000	299,910	261,040	221,723	182,406	**142,824**
Site 3	West of Stonehouse	Stonehouse	25,000	380,000	252,361	222,271	191,630	160,989	**130,007**
Site 4	NE of Cam	Cam	25,000	380,000	298,787	269,437	240,088	210,738	**180,874**

Source: HDH 2013

Table 10.10 Strategic Sites, Residual value compared to Viability Threshold (£/ha). Varied Affordable and Varied Infrastructure							
			Alternative Use Value	Viability Threshold	**Residual Value**		
					50% Infrastructure 10% Affordable	50% Infrastructure 20% Affordable	**Base**
Site 1	Hunts Grove	Hardwick	25,000	380,000	358,078	290,516	**142,824**
Site 3	West of Stonehouse	Stonehouse	25,000	380,000	323,576	257,992	**130,007**
Site 4	NE of Cam	Cam	25,000	380,000	359,620	299,854	**180,874**

Source: HDH 2013

10.39 As with the modelled sites, the following table shows the Residual Values for the appraisals subject to a 5% and 10% increase and decrease in sales prices and a 15% increase in build costs:

Table 10.11 Strategic Sites, Cost and Price Change. Residual value compared to Viability Threshold (£/ha)										
			Alternative Use Value	Viability Threshold	Residual Value					
			£/ha	£/ha	BCIS +15%	Price -10%	Price -5%	Base	Price +5%	Price +10%
Site 1	Hunts Grove	Hardwick	25,000	380,000	-43,550	1,057	72,695	142,824	211,364	279,639
Site 3	West of Stonehouse	Stonehouse	25,000	380,000	-41,095	913	66,439	130,007	192,415	254,373
Site 4	NE of Cam	Cam	25,000	380,000	29,872	59,608	120,563	180,874	240,339	299,290

Source: HDH 2013

10.40 The initial appraisals are based on the assumptions set out in the previous chapters of this report. We have modelled the identified infrastructure costs – although where a site is part of a larger allocation we have assumed that all the infrastructure costs are borne by the residential element.

Non-Residential Development.

10.41 As for the residential assessments carried out above, when assessing the strategic non-residential sites the appraisals use the Residual Valuation approach – that is, they are designed to assess the value of the site after taking into account the costs of development, the likely income from sales and/or rents and an appropriate amount of developers' profit. The payment would represent the sum paid in a single tranche on the acquisition of a site. In order for the proposed development to be described as viable, it is necessary for this value to exceed the value from an alternative use.

Table 10.12 Non-Residential Appraisals.

	Area	Whole Site	Per ha NET	Per ha GROSS
West of Stonehouse	9.05	3,345,576	369,838	369,677
NE of Cam	11.40	-1,329,625	-116,634	-116,634
Quedgeley East	12.61	-2,148,176	-170,408	-170,355
South of Severn Dist Pk	9.70	-1,693,426	-174,635	-174,580

Source: HDH 2013

10.42 As we would expect – and as found in the CIL Development Appraisal Study (Chris Marsh Associates, August 2012) – the main employment sites do not show as viable, although at Stonehouse where there is a significant element (5,000m^2) of 'out of town' retail space the results are more positive.

Mixed-use Strategic Sites

10.43 The strategic sites, West of Stonehouse and North East of Cam, are both mixed use schemes. (The Sharpness Docks area is also a mixed use area but has not been modelled by us). The following table shows the Residual Values on a whole site basis for the two mixed sites:

Table 10.13 Residential with Non-Residential Results

	Area	**Residual Value**			
	Ha	Residential	Non-Residential	Total	£/ha
West of Stonehouse	90	9,490,496	3,344,476	12,834,972	142,611
NE of Cam	40	5,426,211	-1,329,625	4,096,586	102,415

Source: HDH 2013

10.44 The promoters of these sites are actively pursuing development and have provided assurances to the Council that these sites are deliverable (ie viable) – in the context of the Local Plan (particularly the affordable housing target (30%)) and the infrastructure requirement. They have not, however provided supporting viability work. The modelling and appraisals carried out in a high level strategic report such as this are based on generic and District wide assumptions. We strongly recommend that prior to the Examination, that the Council and the sites' promoters work together, bearing in mind page 23 of the Harman Guidance which says:

Landowners and site promoters should be prepared to provide sufficient and good quality information at an early stage, rather than waiting until the development management stage. This will allow an informed judgement by the planning authority regarding the inclusion or otherwise of sites based on their potential viability.

10.45 These sites are m*ajor strategic* sites in the context of paragraph 34 of the CIL Guidance that says:

34. Charging authorities may want to consider setting differential rates as a way of dealing with different levels of economic viability within the same charging area (see regulation 13). This is a powerful facility that makes the levy more flexible to local conditions. Differences in rates need to be justified by reference to the economic viability of development. Charging authorities can set differential levy rates for different geographical zones provided that those zones are defined by reference to the economic viability of development within them. In some cases, charging authorities could treat a major strategic site as a separate geographical zone where it is supported by robust evidence on economic viability.

10.46 It may be necessary to develop site specific rates of CIL for these sites and ensure that a clear delivery strategy can be demonstrated for the Examination.

Conclusions

10.47 We take this opportunity to stress again that the results in themselves to do not determine policy. We have discussed the consequences of these results in Chapter 11.

11. Conclusions and Recommendations

11.1 This document sets out the methodology used, the key assumptions adopted, and the results. It has been prepared to assist the Council with the assessment of the viability of the Local Plan. The NPPF, the CIL Guidance and the Harman Viability Guidance requires stakeholder engagement – particularly with members of the development industry. Extensive and detailed consultation has taken place and whilst there was not universal agreement a broad consensus on most matters was achieved.

11.2 In this report we have 'tested' 16 notional / modelled residential sites, a range of non-residential types and a range of specific strategic and reserve sites in order that a broad assessment of the viability of the development set out in the Local Plan can be made. This will be an important, but not the only, factor to be taken into account when considering the deliverability of the Plan.

11.3 The core purpose of this report is to assess the deliverability of the Local Plan. This must be carried out in the context of the policies set out in that document. If the Council are not confident that the development within the Plan is deliverable, they should not proceed with the examination process and should seek further and or alternative development sites.

11.4 At the start of and through this study we have referred to the NPPF and CIL Regulations and Guidance. When considering the deliverability of the Plan it is also useful to consider paragraph 154 of the NPPF.

154. Local Plans should be aspirational but realistic. They should address the spatial implications of economic, social and environmental change. Local Plans should set out the opportunities for development and clear policies on what will or will not be permitted and where. Only policies that provide a clear indication of how a decision maker should react to a development proposal should be included in the plan.

11.5 The plan is aspirational but realistic. Not all sites, particularly the brownfield sites and the employment sites are viable now, but the Council has sensible ambitions to bring land forward. It is taking practical steps to create the right environment to facilitate development – such as investigating CIL to provide an additional source of funding for the infrastructure required and identified in the Infrastructure Delivery Plan.

11.6 The principal message from Government is about enabling and delivering development. Stroud District Council is not a developer and its tools to deliver housing and employment space are limited to creating an environment that is conducive to development, without imposing such a level of burden on developers to prevent them, and landowners, making a competitive return.

Non-Residential Development

11.7 It is clear that most employment development across Stroud District is not viable in the current market. This is not surprising bearing in mind the current state of the market, the findings of the CIL Development Appraisal Study (Chris Marsh Associates, August 2012), and this reflected on the ground with the relative lack of actual development coming forward. As mentioned in the previous chapters, viability testing in the planning context is about the viability of property development. As can be clearly seen through the projects being brought forward by end-users, where the Council and others have created the right environment, businesses are seeking to expand and move to the area.

11.8 The lack of development viability is not, on the whole, a factor of high level of abnormal costs and the Council has not formulated a set of policies that are expensive for the developer to implement. In terms of development control policies, the Council has not imposed any policies over and above the bare minimum on employment space.

11.9 The development of workspace is an important element of the Council's strategic objectives and the Council places a high level of importance on this part of the overall Development Plan. The Council is not a developer, its role is to create the best possible environment to facilitate development – within the wider constraints of the plan.

11.10 It is a key part of the plan strategy to bring forward employment development with residential development to create sustainable communities, for example at North East Cam. From a viability perspective, this is a practical step to encourage employment development by providing an element of cross subsidy. We would recommend that the Council also gives careful consideration as to how it can go further in facilitating non-residential development. These may include ensuring that the specific highways works are included on the CIL Regulation 123 List[26] and allowing enabling development (such as including a hotel, out of town retail, or similar to provide an element of cross subsidy).

11.11 The Council is already doing much in this direction. Historically it worked with the Development Agency and is now an active participant in the Local Enterprise Partnership (LEP). Through continuing to provide the best possible environment for business, employers will continue to be attracted to the high quality area – even if in pure monetary terms is not viable to build the required premises.

Residential Development

11.12 The Residual Value on all but one of the modelled sites, when assessed against the full policy requirements of the Local Plan is positive and in most cases very substantial. The following table compares the Residual Value with the Viability Threshold.

[26] This is the list of items that the Council will deliver, and fund in part, through CIL.

Table 11.1 Modelled Sites Base Appraisals. Residual Value compared to Viability Threshold

			Alternative Use Value	Viability Threshold	Residual Value
			£/ha	£/ha	£/ha
Site 1	Rural North	Upton St Leonards	25,000	380,000	576,426
Site 2	Town Edge	Stonehouse	50,000	410,000	737,159
Site 3	Infill	Stonehouse	400,000	480,000	12,757
Site 4	Infill	Stonehouse	50,000	410,000	546,546
Site 5	Town Edge	Stroud	25,000	380,000	839,998
Site 6	Infill	Stroud	50,000	410,000	529,240
Site 7	Infill	Stroud	800,000	960,000	1,155,864
Site 8	Infill	Cam	400,000	480,000	206,316
Site 9	Town Edge	Cam	50,000	410,000	803,197
Site 10	Infill	Dursley	400,000	480,000	-398,650
Site 11	Rural South	Wotton Under Edge	800,000	960,000	1,276,205
Site 12	Rural East	Nailsworth	50,000	410,000	1,199,492
Site 13	Rural East	Minchinhampton	25,000	380,000	1,169,429
Site 14	Rural West	Frampton	25,000	380,000	521,213
Site 15	Valley Bottom	Stroud	400,000	480,000	276,086
Site 16	Valley Bottom	Thrupp	400,000	480,000	385,166

Source: HDH 2013 Table 10.2 Local Plan Viability Study

11.13 From the above we can see that five of the modelled sites are unviable. These are all brownfield sites with significant abnormal costs. This represents a small proportion of the sites identified in the SHLAA as having potential for development. It is important to note that the SHLAA is a technical document to inform the plan making process and that not all the sites in the SHLAA will be suitable for development.

11.14 This report must not be read and used in isolation. It is clear from the development that is happening on the ground and being pursed through the planning system that development of brownfield sites is coming forward and is happening – and is providing affordable housing. We have been provided with development appraisals based on actual sites in the Stroud Valleys that were prepared to support the development management process that show sites within the Valley Bottom areas are viable.

11.15 With regard to the strategic sites, the promoter of the Sharpness Docks site has demonstrated that, whilst the site has real delivery challenges, the site is viable and they are continuing to develop a strategy to bring it forward.

Table 11.2 Strategic Sites, Base Appraisals. Residual Value compared to Viability Threshold – Residential Elements					
			Alternative Use Value	Viability Threshold	Residual Value
			£/ha	£/ha	£/ha
Site 1	Hunts Grove	Hardwick	25,000	380,000	142,824
Site 2	West of Stonehouse	Stonehouse	25,000	380,000	130,007
Site 3	NE of Cam	Cam	25,000	380,000	180,874

Source: HDH 2013 Table 10.7 Local Plan Viability Study

11.16 From the above we can see that the specific three sites that we have tested generate a Residual Value that is substantially above the Existing Use Value, but not in excess of the viability threshold. It is important to note that all the infrastructure costs have been allocated to the residential element of the sites and that the full affordable housing targets are being met. These sites represent a large proportion of the new dwelling required over the plan period and it is not necessarily appropriate or possible to consider such large and complex sites in what is a high level study based on relatively little information.

11.17 The above appraisals include all the infrastructure that is required to enable their development and fully mitigate the impact of the schemes and to provide the full (30%) affordable housing target. The promoters of these sites are actively pursuing development and have provided assurances to the Council that these sites are deliverable – in the context of the Local Plan (particularly the affordable housing target (30%) and the infrastructure requirement). They have not, however provided supporting viability work in a form that can be relied on by the Council. The modelling and appraisals carried out in a high level strategic report such as this are based on generic and District wide assumptions. We strongly recommend that, prior to the Examination, the Council and the sites' promoters work together, bearing in mind page 23 of the Harman Guidance which says:

Landowners and site promoters should be prepared to provide sufficient and good quality information at an early stage, rather than waiting until the development management stage. This will allow an informed judgement by the planning authority regarding the inclusion or otherwise of sites based on their potential viability.

11.18 These sites are m*ajor strategic* sites in the context of paragraph 34 of the CIL Guidance that says:

34. Charging authorities may want to consider setting differential rates as a way of dealing with different levels of economic viability within the same charging area (see regulation 13). This is a powerful facility that makes the levy more flexible to local conditions. Differences in rates need to be justified by reference to the economic viability of development. Charging authorities can set differential levy rates for different geographical zones provided that those zones are defined by reference to the economic viability of development within them. In some cases, charging authorities could treat a major strategic site as a separate geographical zone where it is supported by robust evidence on economic viability.

11.19 It may be necessary to develop site specific rates of CIL for these sites to ensure that a clear delivery strategy i can be demonstrated for the Examination.

11.20 The Stroud Valleys strategic sites are at the margins of viability because of the commination of high abnormal costs (site preparation) and of being situated in the lowest value areas. Small improvements in the housing market may enable these sites to come forward – however some level of intervention is likely to be required. As mentioned earlier the Council is not a developer, its role is to create the best possible environment to facilitate development – within the wider constraints of the plan. We recommend that the Council gives careful consideration to how it can go further in facilitating development in the Stroud Valleys. These may include ensuring that the regeneration works that are 'lifting' the area are included on the CIL Regulation 123 List[27] and allowing enabling development. The Council will need to set out what it is doing in this regard (it is an active participant in the LEP etc.).

Conclusion – Cumulative Impact of Policies on Viability.

11.21 Our recommendation is that the Council should proceed with the Local Plan process as, in our opinion, the bulk of the sites are deliverable and the vast majority of the housing allocations are viable. Based on our professional opinion, the assumptions that we have relied on are sound and appropriate – particularly in the context of the NPPF, the Harman and RICS Guidance, and our knowledge of the local market.

11.22 At the start of this report we included a quote from the Harman Guidance:

…. the viability assessment is not there to give a straightforward 'yes or no' to development across the whole plan area or whole plan period.

11.23 Paragraph 182 of the NPPF sets out the matters for the Inspector to consider when testing the soundness of a Development Plan. It says that the plan should be 'effective – the plan should be deliverable over its period'. Paragraph 173 of the NPPF requires that '*the scale of development identified in the plan should not be subject to such a scale of obligations and policy burdens that their ability to be developed viably is threatened. ….*'

11.24 In this study we have worked from '*appropriate available evidence*' as required by the NPPF.

11.25 **We confirm, that based on the finding of this Local Plan Viability Study, that development set out in the Local Plan is not subject to such a scale of obligations and policy burdens that its ability to be effective is threatened. Furthermore the**

[27] This is the list of items that the Council will deliver, and fund in part, through CIL.

cumulative impact of the policies in the Local Plan will not put implementation of that Plan at serious risk, and will facilitate development.

Setting CIL

11.26 It is important to note that the findings of this report do not determine the rates of CIL, but viability is one of a number of factors that the Council may consider when setting CIL. In setting CIL there are three main elements that need to be brought together:

a. Evidence of the Infrastructure Requirements

b. Viability Evidence

c. The input of stakeholders.

11.27 In the following sections we have set out some of the factors that the Council may consider when deciding whether or not to introduce CIL and when deciding at what level to set it. It is beyond the scope of this study to set the rates of CIL – that will take place following the preparation of the Preliminary Draft Charging Schedule and the input of elected members. The Council will need to consider a wide range of factors including those set out below. It is beyond the scope of our instructions to consider the infrastructure evidence.

11.28 In setting CIL, the Council will have to weigh up various policy priorities – particularly those that are 'paid' for and delivered by the development industry. The payment of CIL, the delivery of affordable housing, and the construction of development to improved environmental standards are all costs to a developer and closely related. If a council wishes to introduce a new charge such as CIL, or increase an existing requirement on developers, there will be a knock on effect on the other requirements. A council that puts different weight and importance on one requirement – say the delivery of affordable housing – is likely to set CIL at a different rate to a council that puts less weight on affordable housing.

Regulations and Guidance

11.29 A detailed commentary is given to the CIL Regulations and CIL Guidance at the start of this report, however it is useful to revisit these at this stage. Regulation 14 sets out the context for setting the rates of CIL – the relevant parts say:

Setting rates

(1) In setting rates (including differential rates) in a charging schedule, a charging authority must aim to strike what appears to the charging authority to be an appropriate balance between—

(a) the desirability of funding from CIL (in whole or in part) the actual and expected estimated total cost of infrastructure required to support the development of its area, taking into account other actual and expected sources of funding; and

(b) the potential effects (taken as a whole) of the imposition of CIL on the economic viability of development across its area.

11.30 This is expanded on in paragraph 8 of the CIL Guidance:

The Community Infrastructure Levy regulations place this balance of considerations at the centre of the charge-setting process. In meeting the requirements of regulation 14(1), charging authorities should show and explain how their proposed levy rate (or rates) will contribute towards the implementation of their relevant Plan and support the development of their area. As set out in the National Planning Policy Framework in England, the ability to develop viably the sites and the scale of development identified in the Local Plan should not be threatened.

11.31 At present the requirement in paragraph 8 of the Guidance is only guidance, however, it is noteworthy that under a recently completed consultation to the changes to the CIL Regulations, there is a proposal to embody this in the regulations and thus make it a requirement.

11.32 There is considerable scope to introduce different strategies for setting CIL. It may be that, for example, a council wants to maximise CIL so as to fund infrastructure that it is going to procure and deliver. Alternatively a council may set CIL at a lower level so that the responsibility of delivery is left (through the s106 regime or under s278 agreements[28]) to the developer. It is not for the CIL Examiner to question how the Charging Authority has struck the balance and set CIL – unless the Development Plan, as a whole is threatened. This is set out in paragraph 10.

10. The examiner should be ready to recommend modification or rejection of the draft charging schedule if it threatens delivery of the relevant Plan as a whole.

11.33 It is important to note that, without CIL to pay for infrastructure, the Development Plan may be put at risk and, as set out above, the hurdle to '*show and explain how their proposed levy rate (or rates) will contribute towards the implementation of their relevant Plan and support the development of their area*' is a high one.

11.34 The CIL Regulations and the CIL Guidance are clear and well set out, however over recent months a number of uncertainties have come to light. Few Charging Schedules are in place[29] and there is not yet a large body of CIL Examination reports and legal decisions in place to clarify the areas of uncertainty. There are two particular matters that are relevant to this study: differential rates and charging zones.

[28] Section 278 agreements under the Highways Act are legally binding agreements between the Local Highway Authority and the developer to ensure delivery of necessary highway works. Currently, the limitations on planning obligations in CIL Regulation 123 do not apply to section 278 agreements. Authorities can combine both section 278 and CIL to fund improvements to the road network, and local authorities can enter into unlimited section 278 agreements for the same piece of road infrastructure. There are no current arrangements for the relationship between section 278 agreements and the levy to be visible or regulated in the same way as planning obligations.

The government, through DCLG, are considering whether it is right for section 278 agreements to be required for projects which are included on the list of infrastructure and are intended to be funded through the levy, and whether this could result in unreasonable requirements on developers.

[29] 19 at the time of this report,

Differential Rates

11.35 CIL Regulation 13 gives the flexibility to charge variable rates by zone and development type, however there has been some uncertainty around the charging of differential rates. This follows the objection made by supermarket operator Sainsbury's to the Poole Charging Schedule. Differential Rates were considered and recommended in the Community Infrastructure Levy Development Appraisal (Chris Marsh Associates, 2012). We recommend that the Council adopt the definitions set out by Geoff Salter in his report following his examination of the Wycombe DC CIL Charging Schedule (September 2012). These are:

***Superstores/supermarkets** are shopping destinations in their own right where weekly food shopping needs are met and which can also include non-food floorspace as part of the overall mix of the unit.*

***Retail warehouses** are large stores specialising in the sale of household goods (such as carpets, furniture and electrical goods) DIY items and other ranges of goods catering for mainly car-borne customers.*.

Charging Zones

11.36 Viability does vary across the District. We recommend that consideration is given to separate CIL zones. This is explored further under the sub-heading of Viability Evidence below. If the Council decides to follow this advice, then the CIL Regulations require that such Zones are plotted on an Ordnance Survey plan.

New Regulations and Guidance

11.37 This Viability Study has been prepared in line with current CIL Guidance and the CIL Regulations, best practice, and the various other sources of relevant Guidance. It may be necessary to revisit this process in the light of any new Regulations or Guidance. At time of writing this report, DCLG have just undertaken a consultation on potential changes to the CIL Regulations. As new Regulations are introduced and new guidance published it may be necessary for the Council to reconsider the approach to setting CIL.

CIL v s106

11.38 Councils are not required to introduce CIL – the use of CIL by local authorities is discretionary, so some authorities may continue to seek S106 contributions, and others will seek a combination of S106 contributions and CIL payments.

11.39 From April 2014[30], councils will be unable to pool S106 contributions from more than five developments[31]. This restriction will encourage councils to adopt CIL – particularly where

[30] DCLG has consulted on delaying this date to April 2015.

there are large items of infrastructure to be delivered that will relate to multiple sites. This restriction on pooling s106 will have the effect of bringing s106 tariff policies for items like open space, education and transport, to an end.

11.40 It is important to note that councils that have adopted CIL will still be able to raise additional S106 funds for infrastructure, provided this infrastructure can be directly linked to the site-specific needs associated with the scheme in question, and that it is not for infrastructure specifically identified to be funded by CIL, through the 'Regulation 123 List'[32].

11.41 It is our firm recommendation that the Council gives careful consideration to preparing a Regulation 123 List and thus maintaining the option of agreeing further payments over and above CIL under the s106 regime (and s278 regime) and to fit with Paragraph 14 of the CIL Guidance:

14. The charging authority should set out at examination a draft list of the projects or types of infrastructure that are to be funded in whole or in part by the levy. The charging authorities should also set out those known site-specific matters where section 106 contributions may continue to be sought. The principal purpose is to provide transparency on what the charging authority intends to fund in whole or part through the levy and those known matters where section 106 contributions may continue to be sought.

11.42 In this context we also draw the Council's attention to Paragraphs 84 to 91 of the April 2012 CIL Guidance which supplement Paragraph 15. At present, under the Guidance, the requirement is for the charging authority to set out '*a list of the projects or types of infrastructure that are to be funded in whole or in part by the levy'*. This may become a requirement if the change suggested (in the consultation on the CIL Regulations is implemented) that the 123 List is prepared and set out at the time of the Consultation on the Preliminary Draft Charging Schedule. We recommend that the Council sets out those items of infrastructure which it plans to include on its 123 list and consults stakeholders on its content.

11.43 According to Regulation 123(4), a Charging Authority's 123 list should include those infrastructure projects or types of infrastructure that it intends will be, or may be, wholly or partly funded by CIL. There are a range of infrastructure projects or types which could feature on the 123 list, ranging from social infrastructure (such as schools and health centres) to 'hard' infrastructure such as flood defences and transport. In considering which items to include on the Regulation 123 list, the charging authority will wish to consider the other funding sources available, the fit with its s106 strategy (are there any major items

[31] CIL Regulations 123(3)

[32] This is the list of the items that the Council will spend CIL payments on.

which are best met through site-specific contributions), and how CIL can be most effective as part of its wider strategy to successfully meet local infrastructure needs[33].

11.44 The key matter to bear in mind throughout formulating the infrastructure evidence base and the subsequent CIL and s106 strategy is that the infrastructure needs in question must be associated with development (not with pre-existing deficits), and that the Examiner will be looking for evidence that the strategy for CIL and s106 will assist, and not hinder, delivery of the Local Plan.

Infrastructure Delivery

11.45 Under the current s106 regime, the delivery of site specific infrastructure largely falls to the developer of a site. If improvements to the infrastructure are required, then normally it is for the developer to procure and construct those items – albeit under the supervision of a council. The exception to this is in relation to education and public open space, where some councils have developed tariff systems for contributions to be made into a central 'pot' which is then spent across a general area.

11.46 The advantage of this current system is that the developer has control of the process and can carry out (directly or indirectly) improvements that are required to enable a scheme to come forward. By way of an example, these may be to provide a new roundabout and upgrade a stretch of road, and on a very big scheme provide community buildings – say a school. The developer carries all the financial and development risk associated with the process[34].

11.47 If the Council is to move to a system whereby CIL is set at the upper limit of viability the delivery of these infrastructure items will fall to the Council. The Council will need to consider the practicalities of this. Do they want to take responsibility for delivering infrastructure that is currently delivered by developers under the s106 regime, and if so, how will they manage and fund it? If the Council does not have a mechanism in place (that may involve borrowing monies), the Development Plan could be put at risk as consented schemes may not be able to proceed until the Council has delivered the infrastructure.

11.48 As part of the process of working towards getting CIL in place, the Council is making an assessment of the infrastructure required to support new development. An important part of

[33] It should be noted that whilst New Homes Bonus is not subject to ring fencing – inspectors at recent examinations have been asking specifically about the Councils plans and how it may be spent. The implication being that it can be used to (at least in part) facilitate some development.

[34] It should be noted that there is some uncertainty around how the provision of infrastructure sits within the EU Procurement Rules and whether the provision of such items should be subject to competitive tendering. We recommend that the Council takes independent legal advice in this regard. The Government is aware of this uncertainty and has invited comments as part on the April 2013 consultation on the potential amendments to the CIL Regulations.

striking the balance as to what level of CIL to charge, may be around the nature of infrastructure and how it is to be delivered.

Uncertain Market

11.49 There is no doubt that the future of the British economy is uncertain. Various sources of data are shown in Chapter 4 above, and, whilst the general fall in house prices seems to have stopped, there are still ups and downs. It is noticeable how low turnover (sales per month) is currently running now when compared to the peak of the market in 2007.

11.50 Confidence is low and a new high level of CIL, set close to the limits of viability, could have an adverse impact on development coming forward. Based on this and the Guidance within the NPPF we recommend that a cautious approach is taken.

Neighbouring Authorities

11.51 The rates of CIL introduced by neighbouring local authorities are going to be a material factor when the Council comes to set its rates of CIL. A very high rate may be viable, however if a neighbouring authority has set a low rate, then the Development Plan could be put at risk as developers may prefer to develop in an area with a lower rate of CIL.

11.52 To provide context, we have set out in the following table the rates of CIL that have been or are being considered by councils with similar median house prices. In this table we have averaged council's published rates of CIL across the various charging zones and applied this rate by assuming a typical 90m^2 new build house. This is clearly a broad estimate however does provide wider context. In the first column we have shown the rank of each Council when sorted by median house price. Stroud ranks 213th out of 345 councils.

Table 11.3 Published Residential Rates of CIL (May 2013)				
Rank		Median Price	Average CIL	CIL as % Median
200	Exeter	182,500	80	3.95%
201	Mid Devon	183,500	40	1.96%
203	North Somerset UA	184,725	33	1.62%
204	Havant	184,750	95	4.60%
206	Trafford	185,000	47	2.27%
207	East Cambridgeshire	185,000	65	3.16%
209	Dartford	185,000	150	7.30%
210	Cornwall UA	185,000	47	2.27%
213	Stroud	185,000		
217	Central Bedfordshire UA	189,951	140	6.63%
221	Reading UA	190,250	140	6.62%
222	Teignbridge	191,000	183	8.64%
228	Worthing	195,000	100	4.62%
231	Solihull	199,000	75	3.39%
232	Hambleton	200,000	85	3.83%
236	Rushmoor	200,000	180	8.10%

Source: Median Prices CLG Livetable 586 and CIL watch at www.planningresource.co.uk

11.53 On average, across England and Wales the residential CIL is just under 4.5% of median property values. In Stroud this would equate to about £8,325 per new dwelling or about £80/m^2.

S106 History

11.54 The Council has responded to viability challenges by negotiating s106 contributions with developers – the priority being given to the delivery of affordable housing.

11.55 As required by the CIL Guidance, the Council will present evidence to the CIL Examination of details of their past track record in this regard. See **Appendix 1**. The Council's priority of seeking affordable housing is reflected in the Council's good record in delivering affordable housing, indeed it has largely achieved its affordable housing targets. The lack of a good track record in achieving financial contributions should not be seen as an indication of poor viability – but an indication of the Council's and elected members' priority to deliver affordable housing.

Costs of Infrastructure and Sources of Funding

11.56 The Council is in the process of examining and establishing the requirement for infrastructure to support new development and the costs of providing this. The Council has also considered the amounts of funding that may or may not be available from other sources though the LEP, New Homes Bonus and from Central Government, and through their own and ECC's resources. The Council has a funding gap, that is to say the cost of providing the infrastructure is more than the identified funding.

11.57 When the Council strikes the balance and sets the levels of CIL, the amount of funding required will be a material consideration, as it may be that the delivery of the Plan is threatened in the absence of CIL to pay for infrastructure. However, it should be stressed that CIL should be set with regard to the effect of CIL on development viability.

11.58 There is no expectation that CIL should pay for all of the infrastructure requirements in an area. There are a range of other sources as set out above that are taken into account. The Council will need to consider the total amount of money that may be received through the consequence of development; from CIL, from s106 payments, and from the New Homes Bonus, when striking the balance as to its level of CIL.

11.59 Bearing in mind the requirements of paragraph 8 of the CIL Guidance, and as set out above, it is best practice (and may become a requirement if the change suggested in the consultation on the CIL Regulations is implemented) that the 123 List is prepared and set out at the time of the Consultation on the Preliminary Draft Charging Schedule. We recommend that the Council sets out those items of infrastructure for which it intends to use CIL in a draft 123 list and consults stakeholders on its content, illustrating how using CIL for these items will form part of its wider strategy for delivery of the Development Plan. In this regard the Council should set out the other available sources of funding, the role CIL will play and how these items of infrastructure will enable the Plan to be delivered.

11.60 This part of the process will be particularly important for the Council due to the importance of the larger strategic sites in meeting the overall housing requirements. The Council may, for example, prioritise education (or some subset of it) and make provision for schools itself – or alternatively leave education off the 123 List and seek that the developers of the large sites provide land and schools within their schemes. At this stage there is not sufficient information to advise in this regard.

11.61 When setting out the costs and other sources of funding, the Council will need to consider the amount that can be retained to cover the cost of administering CIL (5%) and the amount to be passed to local neighbourhoods under the localism provisions (15% where there is not a Neighbourhood Plan and 25% where there is) as these will substantially reduce the monies available.

Viability Evidence

11.62 As set out earlier in this report, the purpose of the viability evidence is not to set CIL, rather being to assess the effect of CIL on viability so an assessment can be made to ensure that CIL does not threaten delivery of the plan as a whole. It is inevitable that a new tax such as CIL will render some sites unviable – the question for the Council is whether the plan as a whole is rendered unviable.

11.63 In the following tables we have shown the effect of CIL as £/m^2 of market housing – based on the assumption CIL will not be levied on affordable housing. In these results it is important to note that we have allowed for a £1,000 per unit (market and affordable) payment under s106 to cover site specific matters. These results are different from those in the Community Infrastructure Levy Development Appraisal (Chris Marsh Associates, 2012) as this work is in the context of the emerging Local Plan and Community Infrastructure Levy Development Appraisal was carried out before the new plan and polices were published.

Table 11.4 Developer Contributions. Residual value compared to Viability Threshold (£/ha)											
			Alternative Use Value	Viability Threshold	Residual Value						
					NIL	£1000 +£20/m2	£1000 +£40/m2	£1000 +£60/m2	£1000 +£80/m2	£1000 +£100/m2	**Base £2500/unit**
Site 1	Rural North	Upton St Leonards	25,000	380,000	630,499	583,149	557,428	531,707	505,986	480,264	**576,426**
Site 2	Town Edge	Stonehouse	50,000	410,000	806,452	747,412	713,534	679,655	645,777	611,899	**737,159**
Site 3	Infill	Stonehouse	400,000	480,000	276,143	70,860	-29,068	-128,997	-228,926	-328,854	**12,757**
Site 4	Infill	Stonehouse	50,000	410,000	628,094	563,683	531,892	500,101	472,749	440,656	**546,546**
Site 5	Town Edge	Stroud	25,000	380,000	901,970	847,895	818,609	789,324	760,038	730,752	**839,998**
Site 6	Infill	Stroud	50,000	410,000	597,332	538,550	507,005	475,460	443,915	412,370	**529,240**
Site 7	Infill	Stroud	800,000	960,000	1,271,608	1,179,963	1,127,314	1,074,665	1,022,017	969,368	**1,155,864**
Site 8	Infill	Cam	400,000	480,000	276,409	218,276	186,593	154,910	123,228	93,331	**206,316**
Site 9	Town Edge	Cam	50,000	410,000	861,740	811,740	785,156	758,573	731,990	705,406	**803,197**
Site 10	Infill	Dursley	400,000	480,000	-240,075	-368,706	-435,642	-502,907	-570,171	-637,435	**-398,650**
Site 11	Rural South	Wotton Under Edge	800,000	960,000	1,349,405	1,284,888	1,249,651	1,214,414	1,179,177	1,143,940	**1,276,205**
Site 12	Rural East	Nailsworth	50,000	410,000	1,263,744	1,206,043	1,174,042	1,142,041	1,110,040	1,078,040	**1,199,492**
Site 13	Rural East	Minchinhampton	25,000	380,000	1,239,690	1,180,031	1,148,477	1,116,923	1,085,368	1,053,814	**1,169,429**
Site 14	Rural West	Frampton	25,000	380,000	572,889	529,659	507,100	484,541	461,982	439,423	**521,213**
Site 15	Valley Bottom	Stroud	400,000	480,000	339,103	285,072	256,247	229,599	200,499	171,398	**276,086**
Site 16	Valley Bottom	Thrupp	400,000	480,000	555,556	417,331	345,199	275,757	202,914	130,072	385,166

Source: HDH 2013 Table 10.4 Local Plan Viability Study

11.64 Based on the results above we would recommend that CIL is set at no more than the following rates for the non-strategic sites. It should be noted that should the Council look towards adopting any strategy other that delivering all the infrastructure requirements through CIL themselves and not making any significant use of s106 payments in the future CIL will need to be set at well below these rates if the delivery of development is not to be threatened.

Table 13.4 Maximum rates of CIL assuming de-minimus use of s106	
Development Type	**Maximum Rate of CIL**
Residential – Stroud Valleys	£0/m^2
Residential – All other areas	£120/m^2

Source: HDH 2013

11.65 We have not made recommendations as to other uses as these are covered in the in the Community Infrastructure Levy Development Appraisal (Chris Marsh Associates, 2012).

11.66 We do not believe that it is appropriate to suggest a maximum rate of CIL for the strategic sites. As set out earlier in this report, we strongly recommend that the Council carry out further work to clarify the actual infrastructure requirements on these sites and then engage with the site promoters to agree the most appropriate strategy for delivering that infrastructure. It is likely that this will be based on a relatively low rate of CIL and the delivery of specific infrastructure items through s106.

Instalment Policy

11.67 CIL Regulation 69 sets out when CIL is payable. This is summarised as follows:

Table 13.5 Payment of CIL	
Equal to or greater than £40,000	Four equal instalments at the end of the periods of 60, 120, 180 and 240 days from commencement
£20,000 and less than £40,000	Three equal instalments at the end of the periods of 60, 120 and 180 days from commencement
£10,000 and less than £20,000	Two equal instalments at the end of the periods of 60 and 120 days from commencement
less than £10,000	In full at the end of the period of 60 days from commencement

Source: CIL Regulation 123

11.68 The 2011 amendment to the CIL Regulations[35], at 69B, allows the ability for Charging Authorities to adopt an Instalment Policy. If an Instalment Policy is not adopted then payment is due as set out in the table above. To require payment, particularly on large schemes in line with the above, could have a dramatic and serious impact on the delivery of projects. It is our firm recommendation that the Council introduces an instalment policy. Not to do so could put the Development Plan at serious risk.

A Strategy for Setting CIL

11.69 In setting CIL, the Council will need to weigh up a wide range of information – including the viability evidence. Our recommended strategy for setting CIL is to set CIL well within the limits of viability and develop a Regulation 123 list which reflects a considered approach to how CIL and s106 contributions can deliver infrastructure in the future. This will reflect the current uncertain market. Importantly, this will also allow the developers to maintain control of the delivery of infrastructure for large sites – thus giving more certainty of delivery.

11.70 The limited Regulation 123 List will enable the Council to develop and implement a strategy of further site specific s106 payments.

11.71 This advice is pragmatic and will ensure that the Development Plan is delivered. The ability of the Council to achieve its affordable housing target is linked to the other demands, including CIL, which are put on development. If a higher rate of CIL was charged, then even less affordable housing would be delivered, thus putting the Development Plan at risk.

11.72 This approach will maximise the overall contribution of developers but allow the flexibility to negotiate on a site-by-site basis. CIL will be paid on all viable sites, and then the Council will be able to ensure that each site contributes to the maximum possible extent – be that through s106 payments, or through the delivery of affordable housing.

Review and revision

11.73 Due to the uncertain market we recommend that any rates of CIL are reviewed every three years or if house prices change by more than 10% from the date of this study.

11.74 Further, we stress that this study has been carried out on the basis that the units will be built to Part L of the current Building Regulations and to CfSH Level 4. There is uncertainty about the increase in these levels. Should these standards be increased it will be necessary to review these rates.

[35] SI 2011 No. 987 COMMUNITY INFRASTRUCTURE LEVY, ENGLAND AND WALES The Community Infrastructure Levy (Amendment) Regulations 2011. *Made 28th March 2011 Coming into force 6th April 2011*

Next Steps

11.75 The recommendations in this study are 'a consultant's view' and do not reflect the particular priorities and emphasis that Stroud District Council may put on different parts of its Development Plan. The above suggested rates are supported by the evidence – however there is considerable scope for the Council to strike a different balance.

HDH Planning & Development Ltd is a specialist planning consultancy providing evidence to support planning authorities, land owners and developers.

The firm is led by Simon Drummond-Hay who is a Chartered Surveyor, Associate of Chartered Institute of Housing and senior development professional with a wide experience of both development and professional practice. The firm is regulated by the RICS.

The main areas of expertise are:

- Community Infrastructure Levy (CIL) testing
- District wide and site specific Viability Analysis
- Local and Strategic Housing Market Assessments and Housing Needs Assessments
- Future Housing Numbers Analysis (post RSS target setting)

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