
**HEREFORDSHIRE
COUNCIL - 2014 UPDATED
ECONOMIC VIABILITY
ASSESSMENT**

Whole Plan Viability Assessment

**Three Dragons – May
2014**

FINAL REPORT



This report is not a formal land valuation or scheme appraisal. It has been prepared using the Three Dragons toolkit and non-residential model and is based on local data supplied by Herefordshire Council, consultation and quoted published data sources. The toolkit provides a review of the development economics of a range of illustrative schemes and the results depend on the data inputs provided. This analysis should not be used for individual scheme appraisal.

No responsibility whatsoever is accepted to any third party who may seek to rely on the content of the report unless previously agreed.

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EXECUTIVE SUMMARY

1. Herefordshire Council has published its Pre-submission Core Strategy which contains policies that will guide the development of Herefordshire over a twenty year period up to 2031. The Council recognises the importance of producing a plan that is viable and deliverable and commissioned Three Dragons to assess the viability of the Pre-submission Core Strategy.
2. This whole plan viability assessment complements the Infrastructure Delivery Plan (IDP) produced by the Council in May 2014. The IDP provides details of the infrastructure identified by the Council and other service providers as being needed to support the delivery of the Pre-submission Core Strategy.
3. The IDP and its further refinement will demonstrate the overall cost of the infrastructure required and potential sources of funding, including contributions from individual development through s106 agreements and a Community Infrastructure Levy (CIL) when it is implemented.
4. This whole plan viability assessment indicates the viability of development, BEFORE contributions are made through s106 agreements and/or CIL payment (other than an allowance of £2,000 per dwelling s106 cost to meet open space maintenance payments). The assessment also gives a broad indication of the overall scale of the contributions from development (through s106 and/or CIL) that can be anticipated. The refinement of the IDP being undertaken by the Council will use this information to help demonstrate how the infrastructure to deliver the plan will be funded.

Residential Development

5. The testing undertaken for the notional 1 ha site provides an overview of the viability of the whole plan. The residual values from notional sites are tested against benchmark land values. These vary from location to location and for some areas are expressed as a range between upper and lower benchmark values.
6. Policy compliant levels of affordable housing can be achieved and deliver a residual land value in excess of the upper benchmark at all densities in Ledbury/Ross, Northern Rural, Kington and West Herefordshire, Hereford City and Leominster.
7. In Bromyard a residual land value in excess of the benchmark is achieved at policy compliant levels of affordable housing for 2 out of 3 of the modelled densities. Only at 25 dph does development produce a negative residual at the policy compliant level of affordable housing i.e. 40%.
8. In Hereford Hinterlands, at policy compliant levels of affordable housing provision, a residual value in excess of the lower benchmark is achieved at all densities. At 30% affordable housing a residual value in excess of the upper benchmark is achieved at 30 dph and 40 dph, but not at 25 dph.

9. The case studies generally reflect the findings from the notional 1 hectare testing and highlight the variation in viability between the different value areas with Leominster case studies tending to generate the least additional residual value over the land value benchmark.
10. Smaller schemes in the higher market value areas are shown to generate the highest residual values. Only the single dwelling case studies in Northern Rural (40%AH) and Hereford Hinterland (35% AH) market value areas do not achieve the higher land value benchmark but in both cases, the residual values exceed the lower benchmark.
11. The analysis of the strategic sites also illustrates the variation in development viability across Herefordshire. Nevertheless, all the large case studies generate a residual value above the land value benchmark. This is lowest for the Leominster strategic site and greatest with the scheme in Ross producing an additional value of upwards of £900,000 per hectare. The brownfield site in Hereford is also viable even with a significant allowance for decontamination taken into account.
12. As the Council's IDP progresses, further viability assessments may be required to assist in defining what infrastructure is to be funded through CIL or through s106 agreements.

Non-residential development

13. The viability of a set of notional commercial developments has been assessed, across a range of uses based on the development likely to come forward in Herefordshire. Again, these uses have been assessed before contributions are made through s106 Agreements and/or CIL payments.
14. The viability assessments show that key workspace uses including offices, industrial and warehouse uses are not viable in a traditional property development sense. However there has been development by owner occupiers on the Herefordshire Enterprise Zone and other locations, indicating that this type of use is able to come forward. The only speculative office/industrial development has been through the Council using regeneration funding and this can be repeated subject to the availability of funds.
15. Retail uses are also viable, with convenience retail and out of town comparison retail showing strong viability. Town centre retail is also viable although it is more sensitive to changes in costs.
16. Hotels show a mixed viability picture. The evidence shows that a full service hotel is unlikely to be viable although budget hotel development is viable. In order to meet the aspirations for a full service hotel there may need to be some intervention.
17. Leisure and care home uses are not viable. However leisure uses may come forward as part of mixed use schemes, cross subsidised by other uses to build footfall to the overall scheme.

1 INTRODUCTION

Purpose of the Economic Viability Assessment

- 1.1 Herefordshire Council has published its Pre-submission Core Strategy which contains policies that will guide the development of Herefordshire over a twenty year period up to 2031. The Council recognises the importance of producing a plan that is viable and deliverable and commissioned Three Dragons to assess the viability of the Pre-submission Core Strategy.
- 1.2 Three Dragons produced a draft Economic Viability Assessment (EVA) for the Council (February 2013) which provided an initial assessment of the potential charging rates for a Community Infrastructure Levy (CIL). The 2013 EVA built on a previous assessment undertaken by Three Dragons and Roger Tym & Partners in 2010 which focused on delivery of affordable housing¹. This 2014 update of the EVA is partly based on the 2013 work but has been expanded to assess the viability of the Pre-submission Core Strategy as a whole. The current report has taken into account:
- Updated government guidance including the National Planning Practice Guidance and consultation on residential standards² ;
 - Changes in values and costs;
 - Initial feedback from the Council on consultation responses to the Preliminary Draft Charging Schedule for CIL (published in March 2013);
 - Further feedback from the development industry.
- 1.3 This whole plan viability assessment complements the Infrastructure Delivery Plan (IDP) produced by the Council in May 2014. The IDP provides details of the infrastructure identified by the Council and other service providers as being needed to support the delivery of the Pre-submission Core Strategy.
- 1.4 The IDP and its further refinement will demonstrate the overall cost of the infrastructure required and potential sources of funding, including contributions from individual development through s106 agreements and a Community Infrastructure Levy (CIL) when it is implemented.
- 1.5 This whole plan viability assessment indicates the viability of development before contributions are made through s106 agreements and/or CIL payment. It also gives a broad indication of the overall scale of the contributions from development (through s106 and/or CIL) that can be anticipated. The refinement of the IDP being undertaken by the Council will use this information to help demonstrate how the infrastructure to deliver the Plan will be funded.
- 1.6 At a future date, the Council will take forward preparation of its CIL.³ This will include publication of a regulation 123 list, setting out the infrastructure to be funded by CIL receipts.

¹ Local Development Framework Viability Study, Three Dragons and Roger Tym and Partners for Herefordshire Council, February 2010

² DCLG, Housing Standards Review, Consultation August 2013

³ The Council published its Preliminary Draft Charging Schedule in March 2013

National planning context

National Planning Policy Framework

- 1.7 The National Planning Policy Framework (NPPF) places importance on taking viability into account in developing plans and ensuring viability and deliverability. This is set out as follows:
- “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.”*
(Paragraph 173)
- 1.8 The NPPF explicitly recognises the need to provide competitive returns to a willing land owner and willing developer, and local planning authorities are to assess the ‘*likely cumulative impact*’ of their proposed development standards and policies.⁴

National Planning Practice Guidance

- 1.9 Preparation of the 2014 EVA has taken into account advice set out in the National Planning Practice Guidance⁵ (NPPG). This re-iterates the NPPF approach to plan wide viability testing and states that:
- “Plan makers should consider the range of costs on development. This can include costs imposed through national and local standards, local policies and the Community Infrastructure Levy, as well as a realistic understanding of the likely cost of Section 106 planning obligations and Section 278 agreements for highways works.*
- Their cumulative cost should not cause development types or strategic sites to be unviable. Emerging policy requirements may need to be adjusted to ensure that the plan is able to deliver sustainable development.”*
- 1.10 The NPPG notes that the scale of evidence required for testing the viability of plans should be proportionate and that:
- “Assessing the viability of plans does not require individual testing of every site or assurance that individual sites are viable; site typologies may be used to determine viability at policy level. Assessment of samples of sites may be helpful to support evidence and more detailed assessment may be necessary for particular areas or key sites on which the delivery of the plan relies.”*

⁴ Paragraph 173

⁵ Published by DCLG 6 January 2014

- 1.11 In terms of viability testing, the NPPG advises against planning to ‘*the margin of viability*’ and against assuming any rise in values for the first five years, in undertaking testing of viability:
- “Plan makers should not plan to the margin of viability but should allow for a buffer to respond to changing markets and to avoid the need for frequent plan updating. Current costs and values should be considered when assessing the viability of plan policy. Policies should be deliverable and should not be based on an expectation of future rises in values at least for the first five years of the plan period.”*

Guidance on plan viability testing

- 1.12 Guidance has also been published to assist practitioners in undertaking viability studies for policy making purposes - “Viability Testing Local Plans - Advice for planning practitioners”⁶ (the Harman Guide) The approach to viability testing in the EVA follows the principles set out in the advice. The advice re-iterates that:

“The approach to assessing plan viability should recognise that it can only provide high level assurance.”

The Advice also comments on how viability testing should deal with potential future changes in market conditions and other costs and values and states that:

“The most straightforward way to assess plan policies for the first five years is to work on the basis of current costs and values”. (page 26)

But that:

“The one exception to the use of current costs and current values should be recognition of significant national regulatory changes to be implemented.....” (page 26)

CIL and scaled-back s106 requirements

- 1.13 This study is not designed to provide evidence to support a CIL charging schedule and particular rates of CIL for different uses. However, we and the Council anticipate that there will continue to be a requirement for s106 contributions when a CIL is introduced, in order to make the development acceptable in planning terms. Planning contributions will have to meet the three tests:

- Necessary to make the development acceptable in planning terms;
- Directly related to the development;
- Fairly and reasonably related in scale and kind to the development.

- 1.14 For the EVA we have made an assumption that ALL dwellings will be required to make a minimum s106 contribution, to cover maintenance of public open space. The Council has advised that a figure of £2,000 per dwelling is more than sufficient for this. There is no equivalent contribution for non residential development.

⁶ The guide was published in June 2012 and is the work of the Local Housing Delivery Group, which is a cross-industry group, supported by the Local Government Association and the Home Builders Federation.

1.15 New developments may be required to make additional s106 contributions as well as CIL payments. In this study we do not attempt to distinguish between the two. The question we address is whether developments in the Pre-submission Core Strategy, as a whole, can contribute towards funding the infrastructure needed by the Pre-submission Core Strategy. The IDP (and its updates) will explain how contributions from future developments fit into the overall funding package.

Pre-submission Core Strategy Policies

General policies

1.16 The Pre-Submission Core Strategy 2011 – 2031 includes a number of policies which can have an impact on the viability of development. Impacts of policies are of three main types:

- Because they require the developer to make provision for a particular type of development within their scheme (e.g. affordable housing);
- Because they impact on the form of development and hence its costs e.g. in meeting environmental standards;
- Because they mean that an area within a development scheme has to be set aside for a use that does not generate an income (e.g. in meeting an open space requirement).

1.17 We have worked with the Council to analyse the policies in the Pre-submission Core Strategy and identify which policies add costs and/or reduce revenue from the planned developments. Appendix 1 in the Technical Appendix sets this out in detail and below we highlight examples of policies which are likely to have an impact on viability:

- Affordable housing (see next section)
- Water Quality
- Transport measures
- Provision of community facilities e.g. schools
- Open space and leisure facilities.

Affordable housing

1.18 A key policy that affects viability of the Pre-submission Core Strategy as a whole is the policy requiring affordable housing to be provided as part of residential developments. The Pre-submission Core Strategy explains that there is a considerable need for affordable housing in Herefordshire and has the following policy:

<p><i>Policy H1 - Affordable housing – thresholds and targets</i></p> <p><i>All new open market housing proposals on sites above the thresholds set out below will be expected to contribute towards meeting affordable housing needs.</i></p> <p><i>Within and adjoining the urban areas of Hereford and the market towns, proposals of 15 or more dwellings or 0.5 hectares will be expected to contribute to affordable housing provision. In rural areas, all new housing developments will be expected to</i></p>

make a contribution whereby:

- i) on sites of 3 or more dwellings, the affordable housing will be expected to be provided on-site unless developers can clearly demonstrate that a financial contribution would be more appropriate;*
- ii) on sites of 1 or 2 dwellings, developers will be required to provide a financial contribution to the provision of affordable housing off-site.*

The amount and mix of affordable housing including those on strategic housing sites will vary depending on evidence of housing need, and where appropriate, an assessment of the viability of the development. The following indicative targets have been established based on evidence of need and viability in the county’s housing market and housing value areas:

- 1. a target of 35% affordable housing provision on sites in the Hereford, Hereford Northern & Southern Hinterlands, and Kington & West Herefordshire housing value areas;*
- 2. a target of 40% affordable housing provision on sites in the Ledbury, Ross and Rural Hinterlands; and Northern Rural housing value areas (which includes Bromyard);*
- 3. a target of 25% affordable housing provision on sites in the Leominster housing value area.*

Any affordable housing provided under the terms of this policy will be expected to be available in perpetuity for those in local housing need.

In order to ensure an appropriate balance of affordable housing is provided, the evidence for each housing market area and housing value area will form the basis for determining the mix of tenure types on specific sites.

1.19 In assessing the viability of the Pre-submission Core Strategy, we model the requirements for affordable housing as set out in the policy, making specific assumptions about the type of affordable housing to be provided. Details of the assumptions used are set out in the next chapter.

1.20 As context for testing the viability of Pre-submission Core Strategy policies, we have reviewed the recent delivery of affordable housing and we are advised that the Council is currently achieving an average of 15-16% affordable housing (see table 1.1 below). Affordable housing is not currently sought on all sites and we are advised by the Council that proportions of affordable housing will be higher (typically 30-35%) on those larger sites where affordable housing can be sought.

Table 1.1 Percentage of affordable housing currently achieved

	Total completions	Affordable Housing	AH as % of total
2011/12	341	52	15%

2012/13	202	32	16%
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Source: 2011/12 AMR and 2012/13 AMR (forthcoming)

Water quality

- 1.21 The Pre-submission Core Strategy also sets out the Council’s approach to water quality where it will require new development to comply with the Code for Sustainable Homes Level 5 for water consumption (80 litres equivalent).

Policy SD3 – Sustainable water management and water resources
Measures for sustainable water management will be required to be an integral element of new development in order to reduce flood risk; to avoid an adverse impact on water quantity; to protect and enhance groundwater resources and to provide opportunities to enhance biodiversity, health and recreation. This will be achieved by ensuring that:

6. *water conservation and efficiency measures are included in all new developments, specifically:*

- *residential development to meet the equivalent of Code for Sustainable Homes Level 5 for water efficiency (80 litres/person/day); or*
- *non-residential developments in excess of 1,000 sq.m gross floorspace to achieve the equivalent of BREEAM 3 credits for water consumption as a minimum;*

- 1.22 We have allowed an additional £1,000 per dwelling to meet this standard. This compares with a figure of £200 used in the 2013 EVA (on advice from the Council). The figure of £1,000 per dwelling is based on advice provided to the Council from Cutland Consulting Ltd (see Appendix 8 in the Technical Appendix).

Research evidence

- 1.23 The research which underpins the EVA:

- Builds on the research for the 2013 study which included:
 - Analysis of information held by the authority, including the profile of land supply identified in the Strategic Housing Land Availability Assessment and a review of historic planning permissions;
 - A workshop held with developers, land owners, their agents and representatives from a selection of registered providers in the area which initially informed the 2013 study. Appendix 2 in the Technical Appendix provides a note of the workshop;
 - Subsequent discussions with agents and providers who operate in Herefordshire to verify the assumptions used in the analysis;
- Updates information collected for the 2013 study with:
 - Discussions with Council officers from planning, economic development and housing departments;
 - An analysis of publicly available data to identify the range of values and costs needed for the viability assessment - updated to the start of 2014;

- A review of consultation responses to the Council’s Preliminary Draft Charging Schedule and follow up discussions (April 2014) with individuals nominated by local councilors
- A survey of local Registered Providers in 2013 to seek their views on aspects of costs and revenue that affect affordable housing with updated information from the Council to inform the 2014 update;
- All the viability testing uses the Three Dragons Toolkit, adapted for Herefordshire to analyse scheme viability for residential development and the Three Dragons bespoke model for the analysis of non-residential schemes.

2 VIABILITY TESTING – RESIDENTIAL DEVELOPMENT

Principles

- 2.1 The viability testing uses a residual value approach, the principles of which are set out in the figure below.

Figure 2.1 Residual Value Approach

$$\begin{array}{r} \text{Total development value (market and affordable)} \\ \text{Minus} \\ \text{Development costs (incl. build costs and return to} \\ \text{developer)} \\ = \\ \text{Gross residual value} \\ \text{Minus} \\ \text{CIL + planning obligations (including AH)} \\ = \\ \text{Net residual value (available to pay for land)} \end{array}$$

- 2.2 To assess viability, the residual value generated by a scheme is compared with a benchmark value, which reflects a competitive return for a landowner.
- 2.3 Data has been adjusted to reflect comments made through the consultation process, emerging local authority and government policy and changes in costs and revenues over time. The study is based on April 2014 costs and revenues and no provision is made for changes in either of these factors.

Land value benchmarks

- 2.4 In terms of benchmark land values, Viability Testing Local Plans⁷ sets out a preferred approach in the following extract from page 29:

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).

- 2.5 We have used the same land value benchmarks as in the previous (2013) study. These have not been updated or inflated. There are no published indices by which we could update land values. The consultation responses did not suggest any alternative benchmark land values (with the exception of comments that land values for older persons housing were in excess of urban benchmarks because of the central location of sites suitable for older persons).
- 2.6 For 'urban' sites, we have therefore assumed an existing/alternative use value of £350,000 to £450,000 per hectare, depending on location. Using an uplift of 30%, a benchmark of £455,000 to £585,000 per hectare. We 'round this up' to £500,000 to £600,000 to add a further cushion and we assume that the lower benchmark applies in lower value areas (e.g. Leominster and Bromyard) and the higher figure in higher value areas (e.g. Hereford).
- 2.7 There is less information on which to base a suitable benchmark for the high priced more rural areas (including Ledbury, Ross and the northern and eastern rural parts of Herefordshire) and an uplift on alternative use values would not fulfil the 'sense check' identified in Viability Testing Local Plans. Information is limited, but feedback from the agents' survey indicates that a benchmark of between £800,000 to £1,000,000 per hectare is a realistic range to use for this study.
- 2.8 For (large-scale) greenfield development we assume 10 - 20 times agricultural value – using £20,000 per hectare as agricultural land value in Herefordshire. Higher multiples will apply to higher value areas and comments at the development industry workshop indicated that landowners would have a requirement in excess of 10 times agricultural values. Subsequent research on large-scale developments indicate that a benchmark of about £300,000 per gross hectare for greenfield sites is realistic in higher value areas e.g. Hereford but a lower benchmark would apply in lower value areas at £250,000 per hectare.

⁷ See http://www.pas.gov.uk/c/document_library/get_file?uuid=90fc2589-685a-441f-be9c-1874de4f20b9&groupId=332612

Testing approach and assumptions

2.9 Two types of testing have been undertaken:

- A notional 1 hectare site (at a range of densities from 25dph to 50dph);
- A series of 16 case studies ranging in size from 1 to 1,500 dwellings. The case studies are representative of development in Herefordshire and are based on information provided by the Council.

2.10 Key assumptions used in the analysis of residual values for both the 1 hectare and case study sites include:

Development costs

Build Costs /sq m

- Houses £950
- Flats £1,040 (assumed to be 1 and 2 storey and with an allowance of 10% for circulation space)

Build costs use BCIS 5 year median values as at April 2014. They include a location factor for Herefordshire and an allowance of 15% for external works (e.g. local roads, pavements, incidental landscaping).

Additional build costs

- Code for Sustainable Homes Level 5 for water consumption £ 1,000 per dwelling
- Other Development Costs
 - Professional Fees 12% of build costs
 - Finance 7% of build costs
 - Marketing Fees 3% of market value
 - Developers Return (market units) 20% of GDV
 - Contractors Return (affordable units) 6% of development costs

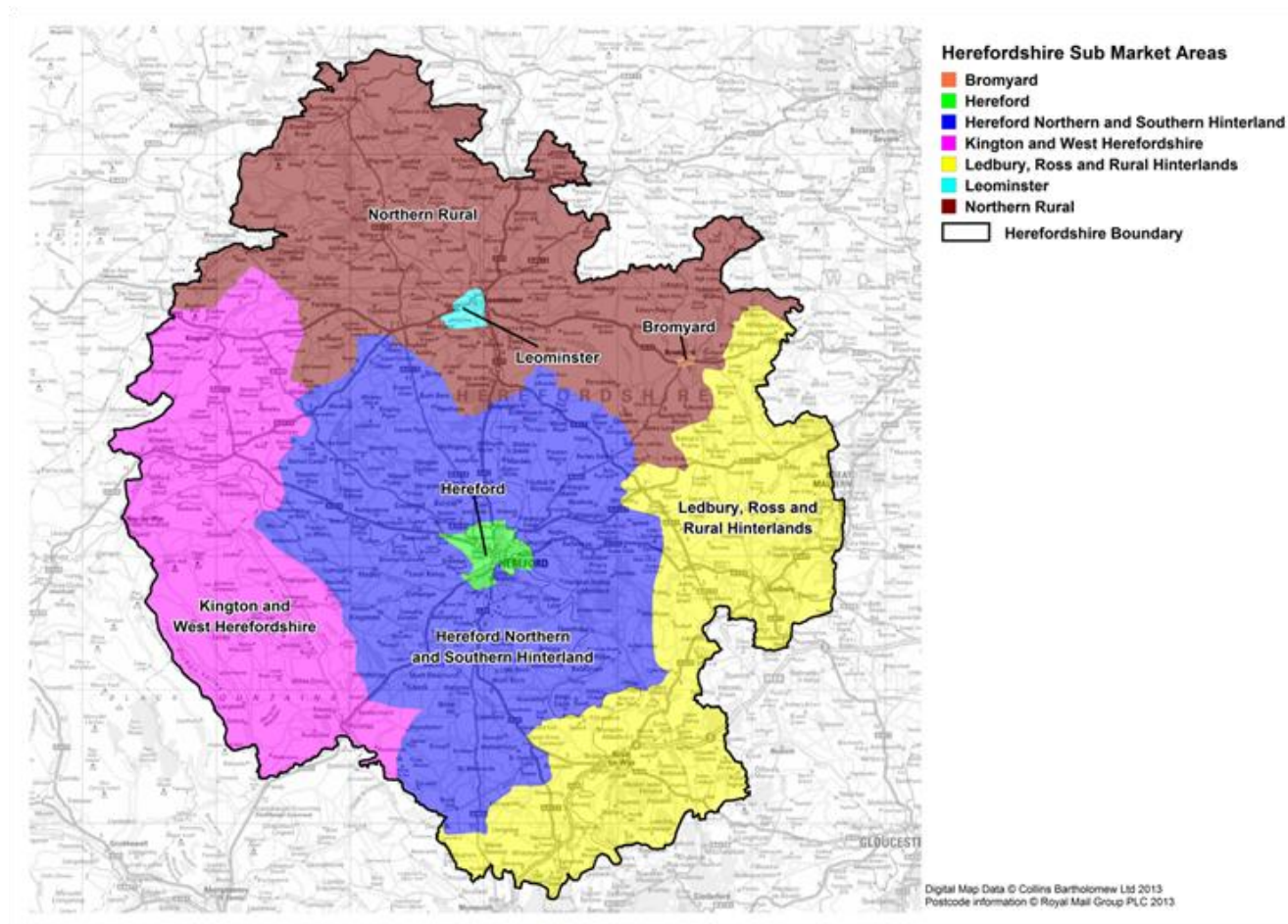
2.11 We have modelled a site specific s106 payment of £2,000 per dwelling (market and affordable) for maintenance of public open space. Other costs of meeting infrastructure requirements may be met by additional s106 payments or via CIL. The Council has yet to determine its approach to the use of CIL and items which are to be funded by CIL and included in its regulation 123 list. The Council's Infrastructure Delivery Plan sets out the infrastructure required to deliver the growth set out in the Pre-submission Core Strategy and the costs of this. We understand the Council will undertake further work to provide a comprehensive picture of future costs of the infrastructure in the IDP. The EVA provides complementary information showing where development has the capacity to help fund the infrastructure (through additional s106 payments or CIL) or where there may be viability issues.

Revenue assumptions

2.12 **House price areas:** These are broadly unchanged from the previous study with the exception of Bromyard. Analysis of Land Registry data for 2013 and 2014 confirmed concerns expressed

through the consultation process that Bromyard house prices were lower than those for the surrounding rural area (Northern Rural) and the town of Bromyard now has its own Market Value Area.

Figure 2.2: Market Value Areas



2.13 Requirements for affordable housing modelled were aligned with the emerging policy and varied by Housing Market and Housing Value Areas (or Housing Market Area for short) identified by the Council. The Housing Market Areas are closely related to the Market Value Areas shown earlier (see Figure 2.2) but are not identical. The following table clarifies the relationship between Housing Market Area and Market Value Areas.

Table 2.1: Relationship between Housing Market Value areas and HMAs

Market Value Area (MVA)	Housing Market Area (HMA)
Ledbury, Ross and Rural Hinterland	Ledbury Ross
Northern Rural	Leominster rural
Bromyard	Bromyard
Hereford Northern & Southern Hinterlands	Hereford
Kington and West Herefordshire	Kington Golden Valley
Hereford	Hereford
Leominster	Leominster town

2.14 The next table sets out the affordable housing targets for each HMA.

Table 2.2: Affordable housing target % for each HMA

Housing Market Area	Affordable housing %
Hereford	35%
Bromyard	40%
Ledbury	40%
Ross	40%
Kington	35%
Leominster rural	40%
Leominster town	25%
Golden Valley	35%

2.15 On advice from the Council, the affordable housing was modelled as 53% social rent and 47% intermediate housing for all areas except Bromyard, where 24% social rent and 76% intermediate housing was assumed. Intermediate housing was assumed to be provided as shared ownership (at a share size of 40%).

2.16 A full set of assumptions is provided in Appendix 3 in the Technical Appendix.

3 RESIDENTIAL VIABILITY ANALYSIS – NOTIONAL 1 HECTARE SITE

Dwelling mix of notional site

3.1 This was unchanged from the previous study. The mixes used are shown below.

Table 3.1: Mixes for 1 hectare scheme for market housing.

Density	25dph	30 dph	40 dph	50 dph
House Type	%s	%s	%s	%s
1 bed flat				5%
2 bed flat			5%	10%
2 bed terrace house		10%	15%	25%
3 bed terrace house		15%	30%	30%
4 bed terrace house	10%			
3 bed semi-det house	25%	25%	20%	25%
3 bed detached house	15%	15%	10%	5%
4 bed detached house	40%	25%	20%	
5 bed detached house	10%	10%		

3.2 The type of affordable housing modelled varies with tenure but focuses on smaller units. The mixes were advised by the Council based on the latest Strategic Housing Market Assessment so, for example, for the social rented housing, 70% of the units are 1 bed flats or 2 bed terraces but for shared ownership, the units are split equally between 2 bed and 3 bed terrace houses. Appendix 3 sets out the assumptions used in detail.

3.3 Densities modelled are shown in table 3.2 below. These densities were selected to reflect the range of densities currently being provided in Herefordshire.

Table 3.2: Densities for 1 ha scheme

25, 30 and 40 dph	30 and 40 dph	30, 40 and 50 dph
Ledbury and Ross	Leominster	Hereford City
Bromyard		
Northern Rural		
Hereford Hinterlands		
Kington & W Herefordshire		

Approach to testing the notional 1 ha site

3.4 The residual value of the notional 1 ha site was calculated using the Three Dragons Toolkit. This was then compared with the benchmark residual land value for the area to give a surplus or deficit which would potentially be available to pay for infrastructure (provided either through

as106 agreement or by CIL). We model at policy compliant levels of affordable housing. Where this produces a land value which is equal to or lower than the benchmark we reduce the proportion of affordable housing in 5% tranches until we arrive at a residual land value which exceeds the benchmark(s).

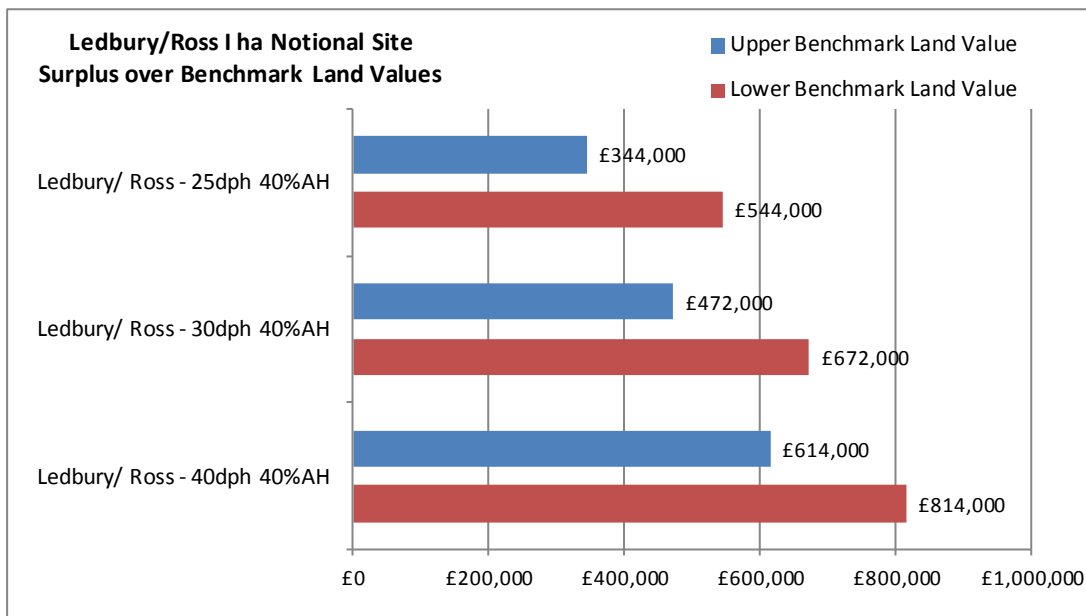
3.5 Appendix 4 shows the results at varying percentages of affordable housing.

Testing Results

Notional 1 hectare scheme - Ledbury, Ross and Rural Hinterland

3.6 Our base test is at 40% affordable housing, with £2K per dwelling S106, with shared ownership as the intermediate tenure. Results are shown in chart 3.1 below. Policy compliant affordable housing provision produces a residual land value which in the worst case (at 25 dph) is £344,000 above the upper benchmark and £544,000 above the lower benchmark value. Development at 30 dph and 40 dph produces slightly stronger results than at 25 dph.

Chart 3.1: Results for Ledbury, Ross and Rural Hinterland

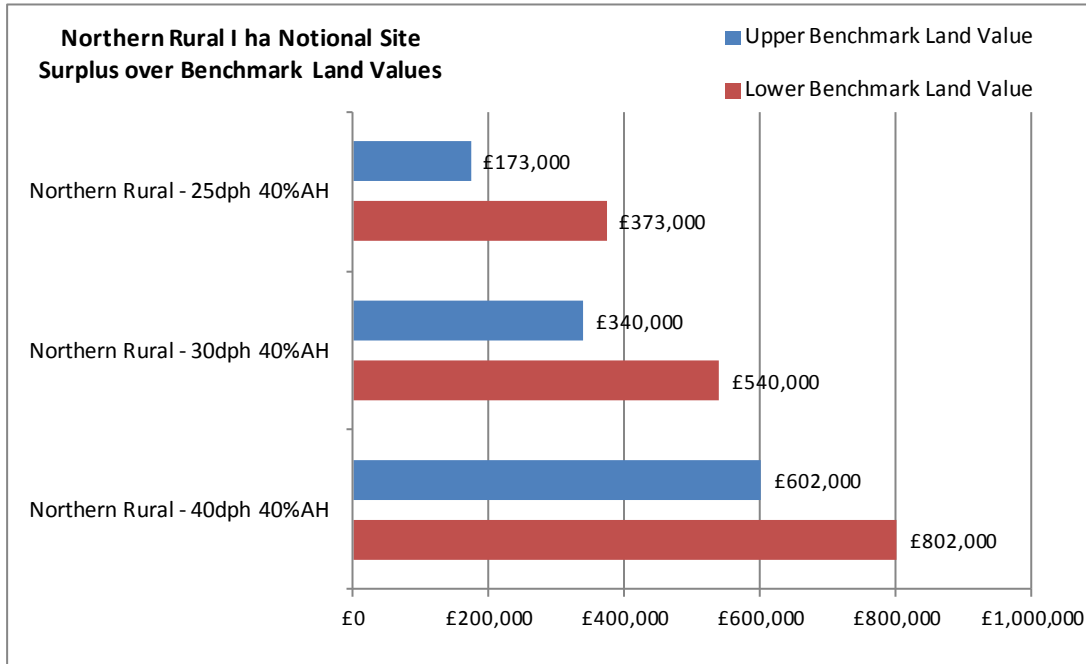


Upper benchmark land value £1,000,000 per ha, Lower Benchmark £800,000 per ha

Notional 1 hectare scheme – Northern Rural

3.7 Our base test is at 40% affordable housing, with £2K per dwelling S106, with shared ownership as the intermediate tenure. Results are shown in chart 3.2 below. Policy compliant affordable housing provision produces a residual land value which in the worst case (at 25 dph) is £173,000 above the upper benchmark and £373,000 above the lower benchmark value. Development at 30 dph and 40 dph produces slightly stronger results than at 25 dph.

Chart 3.2: Results for Northern Rural

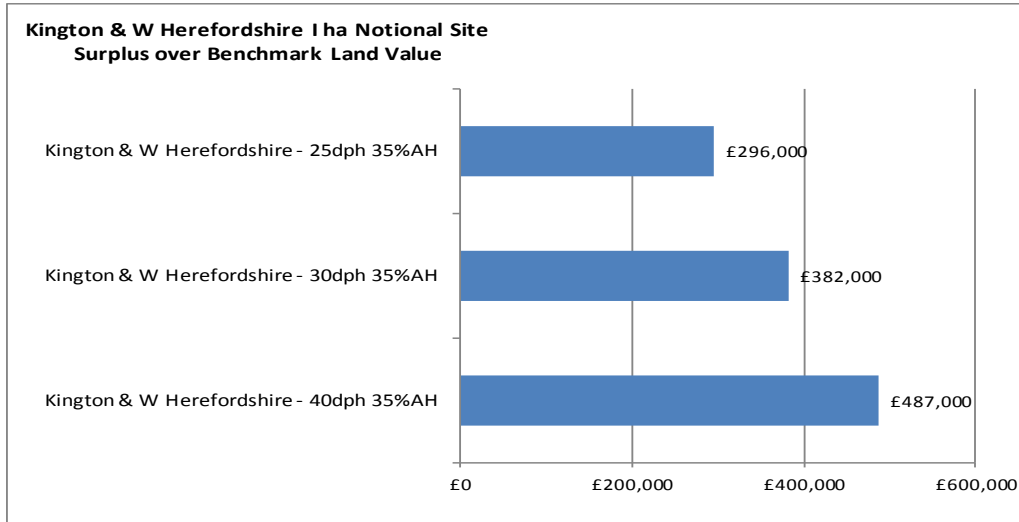


Upper benchmark land value £1,000,000 per ha, Lower Benchmark £800,000 per ha

Notional 1 hectare scheme – Kington and West Herefordshire

3.8 Our base test is at 35% affordable housing, with £2K per dwelling S106, with shared ownership as the intermediate tenure. Results are shown in chart 3.3 below. Policy compliant affordable housing provision produces a residual land value which in the worst case (at 25 dph) is £296,000 above the benchmark. Development at 30 dph and 40 dph produces slightly stronger results than at 25 dph.

Chart 3.3: Results for Kington and West Herefordshire

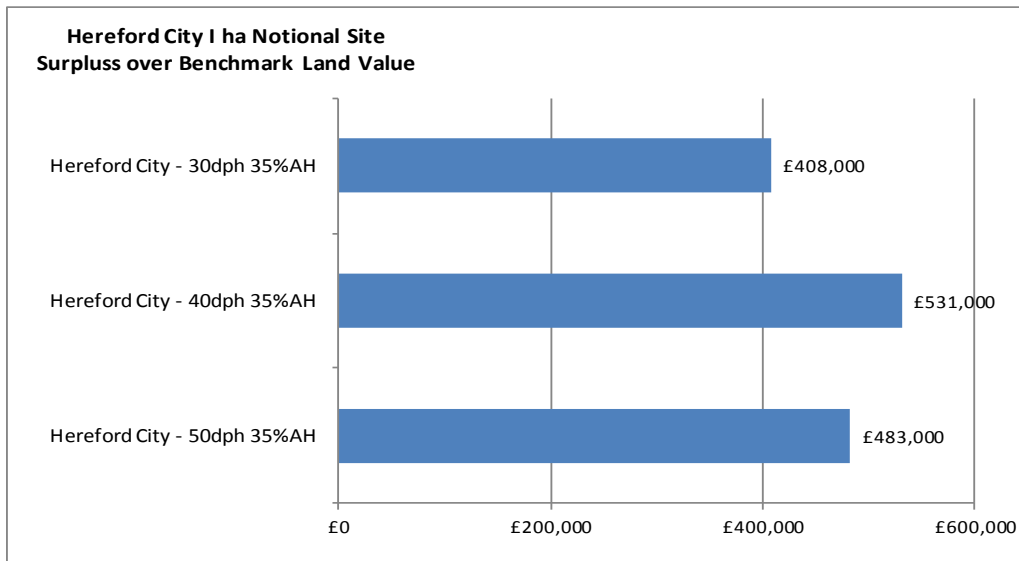


Benchmark land value £600,000 per ha

Notional 1 hectare scheme - Hereford City

3.9 Our base test is at 35% affordable housing, with £2K per dwelling S106, with shared ownership as the intermediate tenure. Results are shown in chart 3.4 below. Policy compliant affordable housing provision produces a residual land value which in the worst case (at 30 dph) is £408,000 above the benchmark. Development at 40 dph and 50 dph produces slightly stronger results than at 30 dph, with 40 dph producing a higher residual than 50 dph.

Chart 3.4: Results for Hereford City

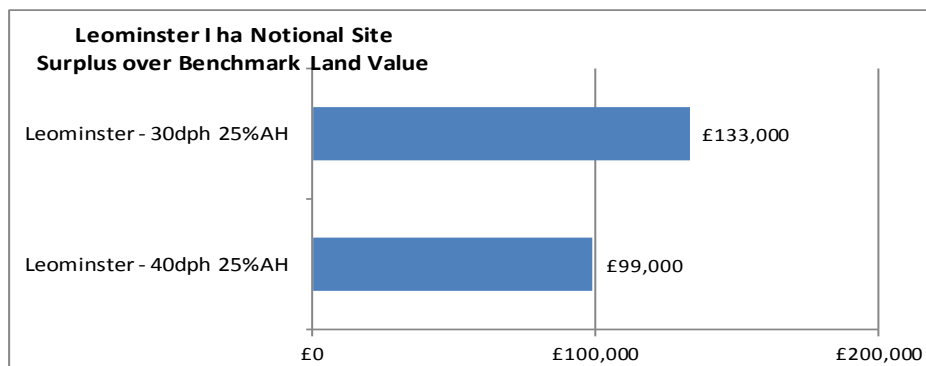


Benchmark land value £600,000 per ha

Leominster

3.10 Our base test is at 25% affordable housing, with £2K per dwelling S106, with shared ownership as the intermediate tenure. Results are shown in chart 3.5 below. Policy compliant affordable housing provision produces a residual land value which in the worst case (at 40 dph) is £99,000 above the benchmark. Development at 30 dph produces a slightly stronger result than at 40 dph.

Chart 3.5: Results for Leominster



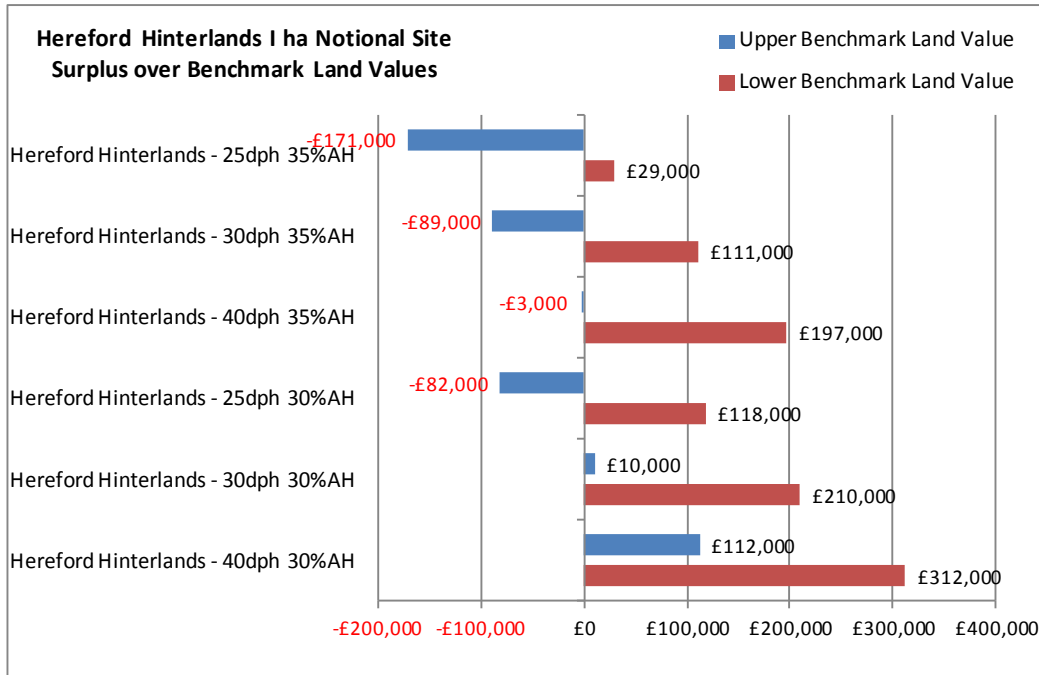
Benchmark land value £500,000 per ha

Notional 1 hectare scheme – Hereford Northern and Southern Rural Hinterland

3.11 Our base test is at 35% affordable housing, with £2K per dwelling S106, with shared ownership as the intermediate tenure. Results are shown in chart 3.6 below. Policy compliant affordable housing provision produces a residual land value which is below the upper benchmark but above the lower benchmark. Development at 30 dph and 40 dph produces slightly stronger results than at 25 dph and are above the lower benchmark by £111,000 and £197,000 respectively.

3.12 We also test at 30% affordable housing. 40 dph gives a residual value which is £112,000 above the upper benchmark. 30 dph gives a residual value which is £10,000 above the upper benchmark and 25 dph still produces a residual value which is below the upper benchmark. All densities are more than £100,000 above the lower benchmark.

Chart 3.6: Results for Hereford Hinterlands

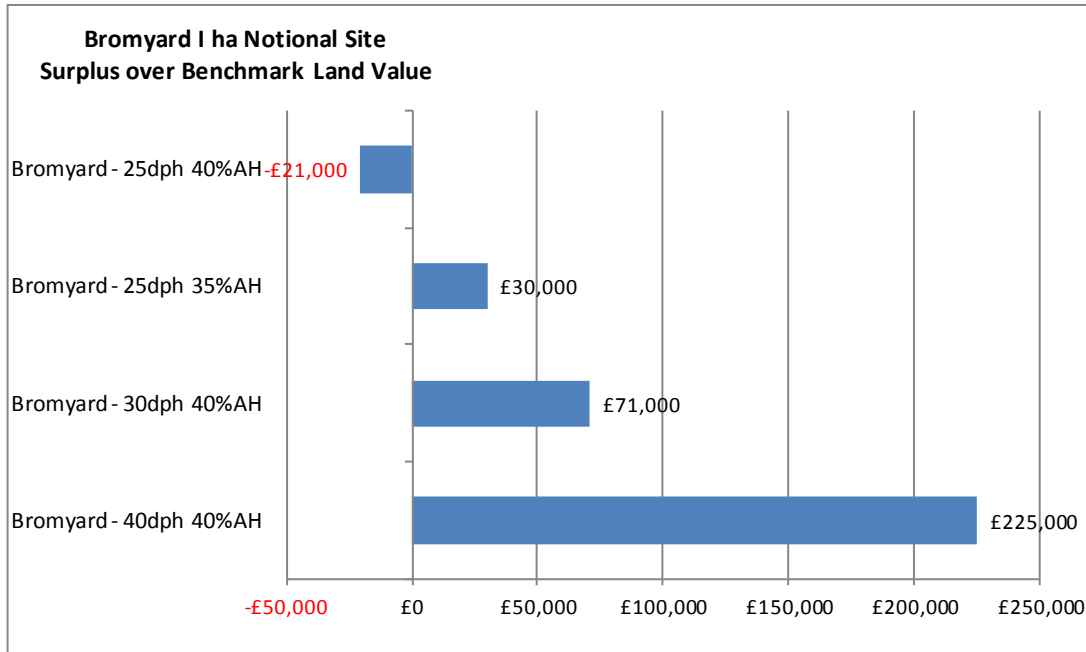


Upper benchmark land value £1,000,000 per ha Lower benchmark £800,000

Notional 1 hectare scheme – Bromyard

3.13 Our base test is at 40% affordable housing, with £2K per dwelling S106, with shared ownership as the intermediate tenure. Results are shown in chart 3.7 below. Policy compliant affordable housing provision produces a residual land value which is below the benchmark at 25 dph but above the benchmark by £71,000 at 30 dph and by £225,000 at 40 dph. Development at 25 dph produces a positive residual value at 35% affordable housing.

Chart 3.7: Results for Bromyard



Benchmark land value £600,000 per ha

Notional 1 hectare site – Overview

- 3.14 The testing undertaken for the notional 1 ha site provides an overview of the viability of the whole plan.
- 3.15 Policy compliant levels of affordable housing can be achieved and deliver a residual land value in excess of the upper benchmark at all densities in Ledbury/Ross, Northern Rural, Kington and West Herefordshire, Hereford City and Leominster.
- 3.16 In Bromyard a residual land value in excess of the benchmark is achieved at policy compliant levels of affordable housing for 2 out of 3 of the modelled densities. Only at 25 dph does development produce a negative residual at the policy compliant level of affordable housing i.e. 40%.
- 3.17 In Hereford Hinterlands at policy compliant levels of affordable housing provision, a residual value in excess of the lower benchmark is achieved at all densities. At 30% affordable housing a residual value in excess of the upper benchmark is achieved at 30 dph and 40 dph, but not at 25 dph.

4 RESIDENTIAL VIABILITY ANALYSIS – CASE STUDY SITES

Case study characteristics

- 4.1 The Council has identified 16 case studies which reflect typical sites likely to be brought forward in Herefordshire; drawing on information about recent planning permissions for the smaller sites and the policies set out in the Pre-submission Core Strategy for the larger case studies. The case studies vary in size from 1 to 1,500 dwellings but not all case studies are tested in every location.
- 4.2 We have divided the case studies into two groups – small case studies and large case studies and report on them separately below while Appendix 5 in the Technical Appendix provides details of the assumptions used for the testing.

Small case studies (Case Studies 1 to 8)

- 4.3 For case studies 1 to 8, we assume that development occurs within one year and we follow a similar approach to that used with the 1 hectare notional scheme, with the benchmark land value deducted from the residual value to identify the additional value available for payment for infrastructure (as a planning obligation/s106 agreement or as a CIL charge).
- 4.4 As for the 1 ha notional scheme, we assume all dwellings have to meet a basic s106 payment of £2,000 per dwelling.
- 4.5 Where upper and lower land value benchmarks are identified, the calculations are repeated for both.
- 4.6 The smaller case studies vary in size from 1 to 30 dwellings. We included an additional cost for the ‘urban infill’ scheme 5 (in Leominster), to allow for a possible building demolition. This is a prudent allowance for possible costs associated with this type of site.
- 4.7 Policy H1 of the Pre-submission Core Strategy states that for Hereford and the market towns, affordable housing is only required from developments of 15 dwellings or more, whilst in the rural areas, it will apply from 1 dwelling. Therefore case studies 1, 4a, 5 and 6 in Bromyard, Leominster and/or Hereford and with fewer than 15 dwellings have been tested with 0% affordable housing. Case Studies 1 to 4 have been tested in 2 ways i) at 0% affordable and ii) at the percentage of affordable housing that applies to that market value area. This is because the market value areas include both market towns and rural areas. The exception is 1c (Hereford Northern and Southern Hinterland) which has no market towns and therefore the case study assumes 35% affordable housing.
- 4.8 Case studies 7 and 8 are the only town schemes (in Ledbury/Ross and Hereford) which exceed the affordable housing threshold. Both case studies are therefore modelled with the percentage of affordable housing set out in Policy H1.
- 4.9 Table 4.1a below sets out the key characteristics of the small case studies, all other assumptions are as for the notional 1 ha scheme. Table 4.1b sets out the results of the viability testing. For

all the case studies the results shown use shared ownership for the intermediate affordable housing component. Full results are shown in Appendix 6 in the Technical Appendix.

Table 4.1a: Characteristics of the Small Case Studies

Case study	Location (Housing Market Area)	Market value area	%AH tested	Total Dwgs	Density	Site Size ha (net)	Gross to net
1a	Ledbury/ Ross	Ledbury Ross and rural Hinterland	0% & 40%	1	25	0.04	100%
1b	Bromyard	Bromyard	0%	1	25	0.04	100%
1b	Northern Rural	Northern Rural	0% & 40%	1	25	0.04	100%
1c	Hereford Hinterland	Hereford Northern and Southern Hinterlands	0% & 35%	1	25	0.04	100%
1d	Kington & W Herefordshire	Kington and West Herefordshire	0% & 35%	1	25	0.04	100%
1e	Hereford City	Hereford	0%	1	25	0.04	100%
1f	Leominster	Leominster	0%	1	25	0.04	100%
2	Kington and W Herefordshire	Kington and West Herefordshire	0% & 35%	4	25	0.16	100%
3	Ledbury / Ross	Ledbury Ross and rural Hinterland	0% & 40%	5	30	0.17	100%
4a	Bromyard	Bromyard	0% & 40%	5	30	0.17	100%
4b	Northern Rural	Northern Rural	0% & 40%	5	30	0.17	100%
5	Leominster	Leominster	0%	8	40	0.20	100%
6	Hereford City	Hereford	0%	10	50	0.20	100%
7	Ledbury/ Ross	Ledbury Ross and rural Hinterland	40%	20	35	0.57	100%
8	Hereford City	Hereford	35%	30	30	1.00	100%

Case study 1 (a single dwelling) has been tested in all the market value areas.

Case study 1B as 2 separate tests - for Northern Rural and for Bromyard

- 4.10 The results of the viability testing for the small case studies are set out in the following charts. The first pair of charts (4.2a and 4.2b) shows the results for the single dwelling case studies. The charts show by how much the residual value exceeds the benchmark land value - we use the upper benchmark for this presentation and give values per dwelling (4.2a) and per market dwelling (4.2b).

Chart 4.2a Case Study 1 - Residual Value less Upper Benchmark per Dwelling

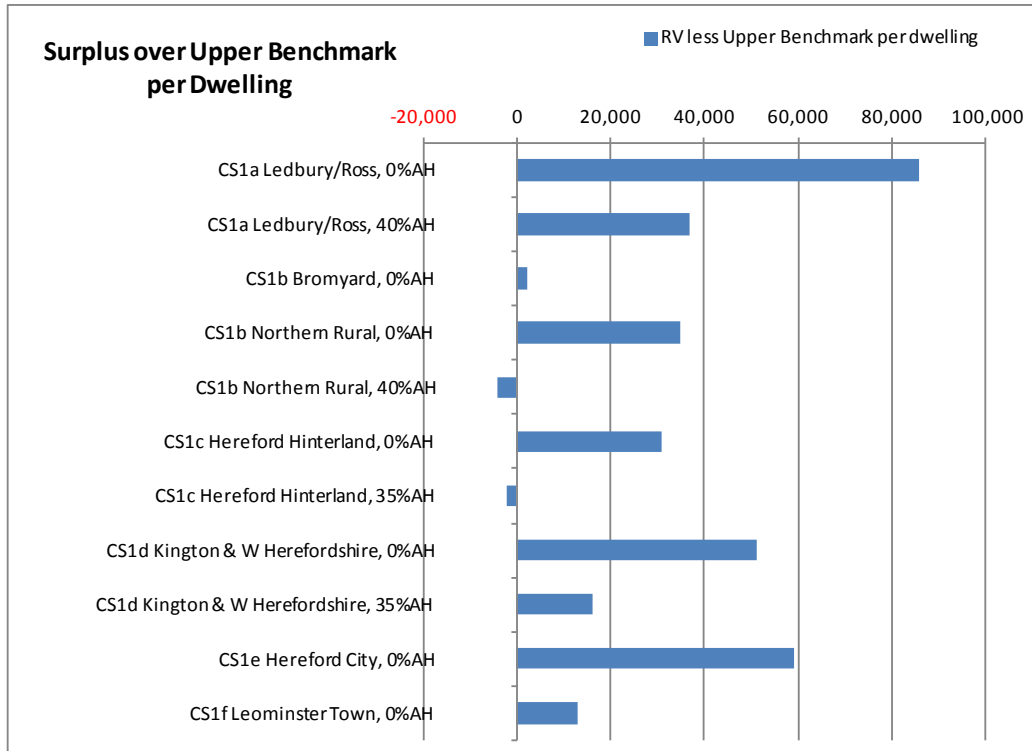
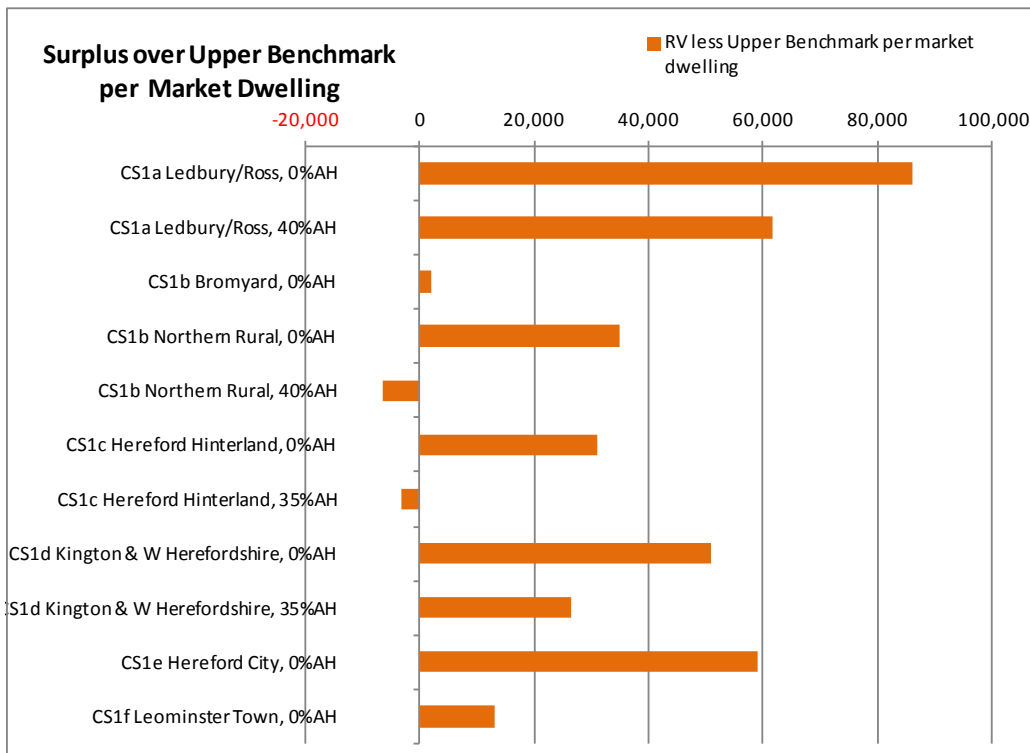


Chart 4.2b Case Study 1 - Residual Value less Upper benchmark per Market Dwelling



- 4.11 The majority of single dwellings tested generate a residual value over the benchmark - as much as £80,000 per dwelling in the Ledbury/Ross value area. The residual value does not exceed the benchmark with the single dwelling in Northern Rural (at 40%AH) and Hereford Hinterland (at 35%AH). But in both cases, the residual value exceeds the lower land value benchmark.
- 4.12 The next pair of charts (4.2c and 4.2d) shows the additional residual value over the upper land value benchmark for case studies 2 to 8, first on a per dwelling basis (4.2c) and then per market dwelling (4.2b). Case studies 2 to 8 range in size from 4 to 30 dwellings.

Chart 4.2c – Case Studies 2 – 8 Residual Value less Upper Benchmark per Dwelling

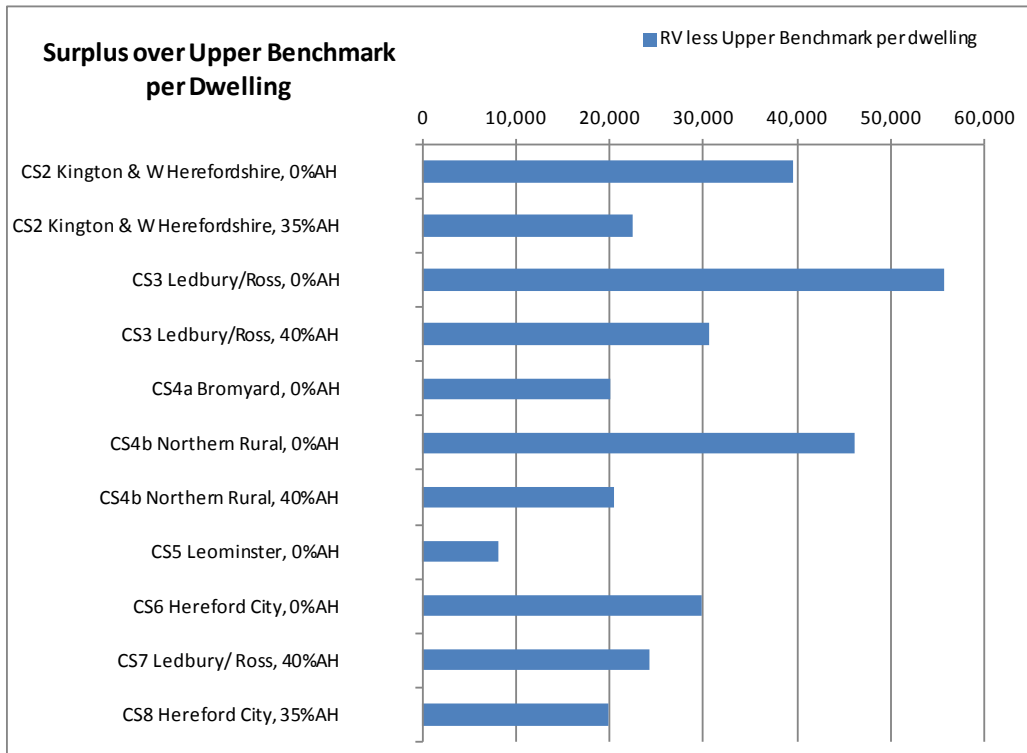
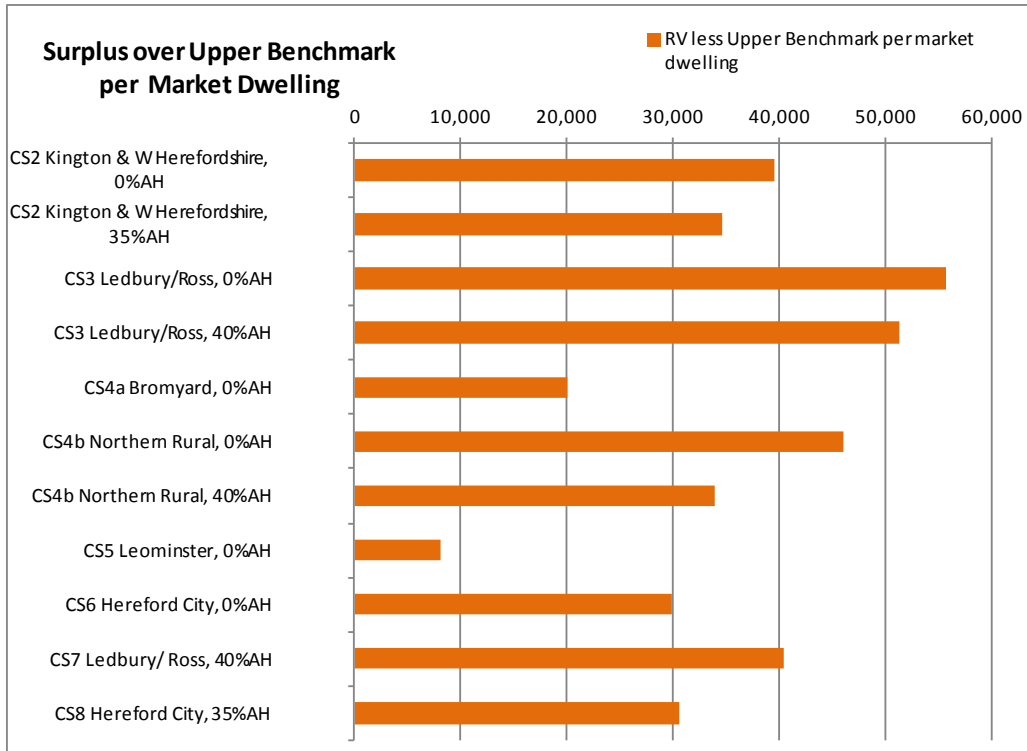


Chart 4.2d Case Studies 2 – 8 Residual Value less Upper Benchmark per Market Dwelling



- 4.13 Case studies 2 to 8, all generate residual values above the upper land value benchmark. The scale of the additional value varies by the number of dwellings in the case study and between value areas.
- 4.14 Of particular note are the smaller sites of 4 and 5 dwellings in the higher value areas (case studies 2, 3 and 4b) which produce additional residual values of up to £55,000 per dwelling (in Ledbury/Ross at 0% affordable housing) and around £20,000 per dwelling in the rural areas (with 35% or 40% affordable housing). These schemes have been identified by the Council as typical of the kind of housing scheme which come forward in the county’s more rural areas.
- 4.15 Case studies 6 and 8 have been identified to reflect the type of smaller housing scheme being developed in Hereford; case study 6 as a higher density terrace scheme (without affordable housing) and case study 8, a lower density edge of city scheme, with the market housing mainly as detached dwellings and the affordable housing as a mix of smaller units. Both schemes generate residual values above the upper benchmark land value of between around £20,000 and £30,000 per dwelling.

Large case studies (Case Studies 9 to 16)

- 4.16 The larger case studies mirror the strategic sites allocated in the Pre-submission Core Strategy. Each strategic site has a series of requirements set out in the Pre-submission Core Strategy e.g. provision of a primary school, sustainable transport measures etc. The costs of these

requirements are included in the draft IDP but the Council has yet to decide whether they will be funded by s106 or CIL.

4.17 In modelling larger schemes, there are a number of additional factors that have to be taken into account (and are referred to in the Advice for Planning Practitioners):

- The Advice for Planning Practitioners indicates that large scale schemes incur additional development costs that do not apply to smaller sites. We have already included a 15% uplift on build costs (identified by BCIS) for external works (local roads, pavements etc). This approximates to just under £11,000 per dwelling or in the order of £430,000 per hectare for a 40 dph scheme. We make a further allowance to cover items such as ground remodelling and bringing utilities to the site. We have allowed such opening up costs on a 'sliding scale' and recognise that these costs are an estimate of what will be required. The additional costs are up to £200,000 per net hectare for the largest scheme of 1,500 dwellings (Leominster LO2). At a density of 40 dph this is about £5,000 per dwelling, which added to the £11,000 above takes the total cost per dwelling to about £16,000.
- The developable area will be less than the gross area of the allocated site. This allows for, for example, strategic open spaces and land for community facilities. The percentages used have been discussed with the Council as a reasonable guide based on recent planning applications but do not necessarily reflect Pre-submission Core Strategy policies.
- Completion of the scheme will take a number of years and this is reflected in the modelling process. Residual values have been calculated using the discounted cash flow facility within the Toolkit, using an appropriate discount rate.

4.18 The table below summarises the key additional information we have used for the larger case studies, all the other assumptions are as for the notional 1 hectare scheme.

Table 4.2: Large Case Studies Characteristics

Case study	Location (Housing Market Area)	Market value area	Total Dwgs	Density	Site Size ha (net)	Gross to net	Opening up costs per net ha	Demolition /De-contamination Costs	Development Rate and Period
9	Hereford HD2	Hereford	800	50	16.00	73%		£3,520,000	100pa 9 years
10	Hereford HD4	Hereford	500	35	14.29	75%	£200,000		100pa 6 years
11	Hereford HD5	Hereford	1,000	35	28.57	70%	£200,000		100pa 11 years
12	Hereford HD6	Hereford	1,000	35	28.57	70%	£200,000		100pa 11 years
13	Bromyard BY2	Bromyard	250	35	7.14	80%	£100,000		50pa 6 years
14	Ledbury LB2	Ledbury Ross and rural Hinterland	625	40	15.63	74%	£200,000		100pa 7 years
15	Leominster LO2	Leominster	1,500	35	42.85	70%	£200,000		120pa 14 years
16	Ross on Wye RW2	Ledbury Ross and rural Hinterland	200	35	5.71	80%	£100,000		100pa 3 years

Case study 9 includes an allowance for demolition/decontamination rather than opening up costs as applied to the other Greenfield case studies

- 4.19 Opening up costs apply to the greenfield sites and vary with the scale of development so that the Bromyard (BY2) and Ross on Wye (RW2) sites have a lower allowance for this than the sites of 500 dwellings or more.
- 4.20 HD2 is a brownfield site which is and has been used in the past for a mix of commercial and other uses. We have referred to publicly available information⁸ and to experience on other schemes to arrive at an estimate of £160,000 per gross hectare to allow for decontamination of the site. A further allowance of £40,000 per net hectare has been allowed for demolition and abnormal foundation requirements. These are reasonable broad estimates for the purposes of this report but comprehensive ground investigation and surveys will be required to establish full detailed costs.
- 4.21 Leominster LO2 has been tested using Leominster market values. However, experience elsewhere shows that with large-scale sites, as the scheme is developed and a new community is established, selling prices can be higher than those within the existing town. The market value area immediately surrounding Leominster has higher values which could also influence the selling prices achieved for Leominster LO2. Leominster LO2 scheme has therefore also been tested with selling prices 10% higher than Leominster town values as a sensitivity test.
- 4.22 For all the large-scale greenfield case studies, different benchmark land values are used. These reflect a multiple of agricultural land value and we use as benchmarks £300,000 per hectare generally and £250,000 per hectare in Leominster (reflecting the weaker market there). These values are per gross hectare and will also reflect the relationship between net and gross

⁸ 'Best Practice Note 27 (revised February 2008) Contamination and Dereliction Remediation Costs' compiled by English Partnerships

developable areas. The values were discussed at the development industry workshop where higher values were indicated as being sought by some land owners. Further discussions were therefore undertaken to check the above values and they appear realistic for large scale schemes (but not necessarily for smaller greenfield developments).

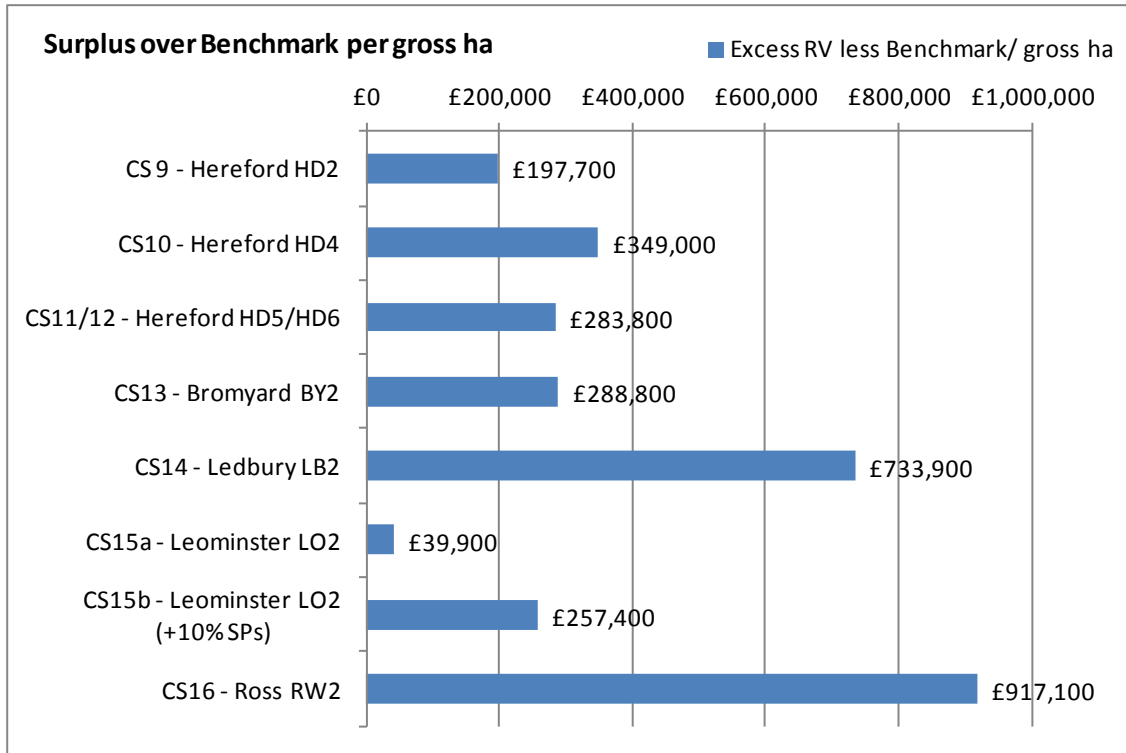
- 4.23 The results for the large case studies are summarised below. The results show the additional residual value of the scheme over the benchmark land value and is the value available for payment for infrastructure (as a planning obligation/s106 or as a CIL charge). Again, other than the £2,000 per dwelling s106 payment, we make no assumptions about the funding mechanisms for the infrastructure items for these sites as identified in the Pre-submission Core Strategy.

Table 4.3 Large Case Studies –Residual Value Over the Land Value Benchmark

Case Study	DPH	Market Value Area	No of dwellings	Benchmark (per gross ha)	Total Scheme Additional Residual Value (£m)
CS 9 - Hereford HD2	50	Hereford	800	£600,000	£3.559
CS10 - Hereford HD4	35	Hereford	500	£300,000	£6.649
CS11 - Hereford HD5	35	Hereford	1,000	£300,000	£11.583
CS12 - Hereford HD6	35	Hereford	1,000	£300,000	£11.583
CS13 - Bromyard BY2	35	Bromyard	250	£300,000	£2.579
CS14 - Ledbury LB2	40	L, R & RH	625	£300,000	£15.499
CS15a - Leominster LO2	35	Leominster	1,500	£250,000	£2.445
CS15b - Leominster LO2 (+10% SPs)	35	Leominster +10%	1,500	£250,000	£15.754
CS16 - Ross RW2	35	L, R & RH	200	£300,000	£6.548

- 4.24 The total additional residual value generated by the large case studies is approximately £73m. This assumes the higher Leominster selling prices (CS15b). It is worth noting again that this figure is AFTER payment for the land to the landowner and a return to the developer and does not include any infrastructure payments. As the Council's IDP is progressed, and detailed estimates of infrastructure costs are finalised, further analysis will be required to assess what infrastructure is to be funded by CIL and infrastructure to be delivered through s106 agreements and the associated CIL rates to be set.
- 4.25 The chart below presents the additional residual value over land value benchmark on a per gross hectare basis.

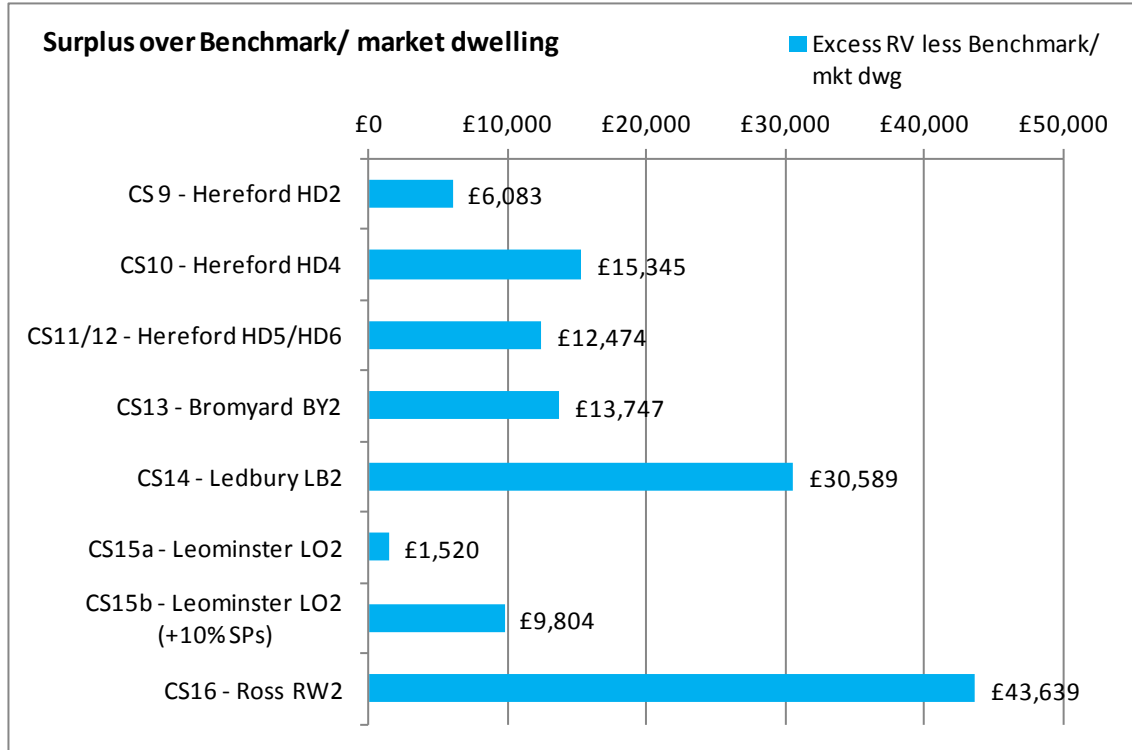
Chart 4.4 Additional Residual Values per gross ha



- 4.26 All the strategic sites produce a residual value above the benchmark land value but there are significant difference between the economic viability of the sites:
- i. The highest residual values are found with the Ledbury and Ross sites – with an additional residual value over benchmark of as much as £917,000 per hectare.
 - ii. CS9 Hereford HD2 (the urban regeneration scheme) generates an additional residual value of just over £197,000/ gross ha, whilst the greenfield Hereford sites, HD4 – HD6, have additional residual values of around £300,000 per gross ha.
 - iii. Bromyard BY2 has an additional residual value of £288,000/ gross ha, just slightly higher than the lowest Hereford greenfield figure.
- 4.27 Without the 10% uplift to selling prices, Leominster LO2 has an additional residual value just under £40,000/ gross ha. This improves to over £257,000/ gross ha when the 10% uplift to selling prices is taken into account.
- 4.28 Considering the findings on a per market dwelling basis (see Table 4.5 below):-
- iv. Ross on Wye RW2 has an additional residual value of over £43,000 per market dwelling, whilst the equivalent value in Ledbury is over £30,000 per market dwelling.
 - v. The Hereford strategic greenfield sites (HD4 – HD6) and Bromyard BY2 have similar additional residual values of between around £12,500 and to £15,500 per market dwelling. Hereford HD2 (the city centre brownfield site) generates a lower figure than the greenfield Hereford sites at £6,000 per market dwelling.

- vi. Leominster LO2 has an additional residual value of just £1,500 per market dwelling, which improves to £9,000 when the 10% price increase is applied.

Chart 4.5 Additional Residual Value per Market Dwelling



4.29 Appendix 6 in the Technical Appendix provides further analysis of the strategic sites, showing the additional residual value per dwelling.

Summary

- 4.30 The case studies generally reflect the findings from the notional 1 hectare testing and highlight the variation in viability between the different value areas with Leominster case studies tending to generate the least additional residual value over the land value benchmark.
- 4.31 Smaller schemes in the higher market value areas are shown to generate the highest residual values. Only the single dwelling case studies in Northern Rural (40%AH) and Hereford Hinterland (35% AH) market value areas do not achieve the higher land value benchmark but in both cases, the residual values exceed the lower benchmark.
- 4.32 The analysis of the strategic sites also illustrates the variation in development viability across Herefordshire. Nevertheless, all the large case studies generate a residual value above the land value benchmark. This is lowest for the Leominster strategic site and greatest with the scheme in Ross producing an additional value of upwards of £900,000 per hectare.
- 4.33 The brownfield site in Hereford is also viable even with a significant allowance for decontamination taken into account.
- 4.34 As the Council's IDP progresses, further viability assessments may be required to assist in defining what infrastructure is to be funded through CIL or through s106 agreements.

5 NON-RESIDENTIAL DEVELOPMENT

Introduction

Future for Herefordshire

- 5.1 The Herefordshire Pre-submission Core Strategy⁹ vision includes “*a thriving local economy with a balanced and diversified business base incorporating more knowledge-based and high-tech businesses and a more skilled and adaptable workforce. A genuine commitment by all businesses to sustainable development will underpin a unique quality of life. New employment land will have been provided to complement new homes and support higher incomes jobs enabling existing and future businesses to grow and thrive.*” It also includes “*a strong, sub-regional shopping, employment, leisure and cultural focus for the county. Comprehensive proposals for regeneration in and around the city centre will complement the historic core in providing homes, jobs, shops and leisure facilities and transport improvements.*” These statements are reflected in Pre-submission Core Strategy objectives:
- Objective 6 includes more, better paid, job opportunities by attracting higher value added knowledge-based businesses.
 - Objective 7 includes the expansion of Hereford city centre.
 - Objective 8 includes strengthening the economic viability of market towns by employment generation and diversification.
- 5.2 Land use development will be a part of the response to these objectives, by providing the premises for the new employment in high value businesses as well as the expanded Hereford city centre and the changes to the market towns’ economies. We have therefore assessed the viability of a set of notional commercial developments, across a range of uses based on the development likely to come forward in Herefordshire. These are:
- Offices, both in town and out of town for new employment and enterprise.
 - Industrial and warehouse uses for new employment and enterprise.
 - Retail, including food (convenience) and comparison, both in town and out of town. This relates to the city centre expansion as well as the neighbourhood centres in the urban extensions, and the potential demand by some larger retail operators.
 - Hotels (both premium/full service in line with the Pre-submission Core Strategy as well as budget where there has been rapid expansion).
 - Leisure and care home uses.
- 5.3 The 72 ha Herefordshire Enterprise Zone (Skylon Park) is available for the development of new workspace. The site has benefitted from £20 million in infrastructure and is intended to have a defence and security sector focus, building on Hereford’s association with UK special forces and nearby Qinetiq and GCHQ. Other sectors welcome at Skylon Park include advanced

⁹ Herefordshire Council, 2013, Pre-submission Core Strategy 2011-31

engineering, food and drink and sustainable technologies. In order to incentivise occupiers, companies in the Enterprise Zone benefit from:

- Business Rates relief, worth up to £275,000 per business over a five year period
- Simplified planning process, with planning already approved for the majority of investors.
- Superfast broadband.
- Local business sponsorship & increase in business profile.
- Help with skills and recruitment.
- Clustering and supply chain boosts.

5.4 Within Herefordshire the principle driver of commercial development has traditionally come from owner occupiers, rather than speculative development and this is apparent in the Enterprise Zone. Developments thus far have been mainly owner/occupier builds, with the exception of a 1000 sqm B1 / B1c speculative development undertaken by the Local Authority with financial assistance from European Regional Development Fund. Although there have been discussions with developers about speculative development none has come forward yet. Other employment sites are also experiencing demand from owner/occupiers rather than speculative demand.

Non-residential Viability Testing

5.5 The non-residential viability assessments also use the residual value methodology, in which a scheme's value is calculated using rents and yields; all of the costs of development (including developer's profit and planning obligations) are then deducted from this capital value; leaving a residual value which is the amount the scheme is able to pay for land. This residual value is then compared to the threshold land value - if the residual value is higher than the threshold land value then the scheme can be expected to proceed (i.e. viable), if the residual value is lower, then the development will not be expected to proceed.

Values and costs

5.6 The values and costs (including threshold land values) used in these viability assessments draw upon published data from recognised sources¹⁰, workshop discussion with the development industry and subsequent individual telephone interviews to confirm some of the workshops' commentary.

5.7 No allowance has been made for s106/278 within these assessments, as the amount of money required will vary considerably in line with site characteristics and cannot be accurately predicted. However in most circumstances development will pay some sort of contribution even under the more restrictive pooling rules post April 2015 (or following the introduction of CIL if this happens earlier).

5.8 Pre-submission Core Strategy Policy SD3 requires non-residential developments in excess of 1,000 sq m gross floorspace to achieve the equivalent of BREEAM three credits for water consumption. A 40% improvement over baseline is required to achieve three credits. A review

¹⁰ CoStar Focus for rents and yields, BCIS for construction costs and VOA Property Market Report for land values

of costs associated with BREEAM¹¹ notes that there can be significant variances, although when the standards are built in from an early part of the design process the uplift is lower. Generally the evidence suggests an uplift in building costs is between 1.5% and 2.5% for BREEAM Excellent across all aspects of a building. Herefordshire Council standards relate to sustainable water only, and no evidence has been uncovered as to what proportion of the total expected uplift in costs might be attributed to this aspect. An allowance has been made of £20/sq m GIA of base build costs to meet this standard, which is a generous estimate.

5.9 Pre-submission Core Strategy Policies OS1 and OS2 require retail and employment development of over 1,000 sq m to make provision for open space, sports and recreation. For the viability assessments it is assumed that landscaping will include some provision where the site characteristics allow, with no measureable impact on land take or external works costs. No allowance is made for off-site provision as post-CIL pooling of more than five contributions will not be allowed.

5.10 Our approach to setting non-residential threshold land values follows the recommendations in the Local Housing Delivery Group's 2012 report¹². This reviews the use of market values and premiums on existing use values (EUV) and recommends that the threshold land value is based on a premium over current use values and credible alternative use values. Valuation Office Agency data was used as a starting point and then discussed with the development industry and Herefordshire Council officers. The base land values used for the viability testing were:

- Between £350,000 to £450,000 for industrial and £430,000 to £560,000 for offices (including town centre offices) per net developable hectare. These values are below the standard threshold land value for residential (but above the threshold land value for strategic urban extensions). We have focused on those locations most likely to see this type of development come forward – i.e. near major transport routes and around Hereford;
- Around £2,200,000/net developable hectare for town centre retail and £1,000,000 for large convenience retail. However whilst this per hectare figure is expressed in a way that allows comparison with other threshold land values it is often more appropriate to work in terms of the assumed site value, and these are detailed in the viability appendices. These land values assume a cleared site and if demolition and remediation of sites is required it is assumed that the costs will reduce land value accordingly with no net effect. However Town centre retail viability testing includes an allowance for demolition as a sensitivity test in response to feedback. Overall, the land values for retail development are considerably in excess of the threshold land values assumed for residential development;
- Around £500,000/net developable hectare for out of centre retail;

¹¹ Target Zero, RICS, Price of Sustainable Schools, EC Harris, BRE/Cyril Sweett, Bristol City Council

¹² Viability Testing Local Plans, 2012, Local Housing Delivery Group

- The threshold land value for out of centre leisure, care homes and hotels will be similar to industrial and out of centre office uses – i.e. around £430,000/net developable hectare.

5.11 The table below summarises the values and costs used in the viability testing

Table 5.1: Non-residential values and costs

	Out of centre offices	Town centre offices	Industrial units	Warehouse units
Floorspace sq m	1,500	2,000	1,600	5,000
Storeys	2	4	1	1
Site coverage	40%	75%	40%	40%
Rent per sq m	£97	£107	£50	£48
Yield	6.50%	7.00%	7.00%	7.00%
Purchaser costs % GDV	5.80	5.80	5.80	5.80
Build costs per sq m including environmental standards	£1,060	£1,306	£593	£425
External works % of base build costs	10%	10%	10%	10%
Professional fees % of construction	12%	12%	12%	12%
Sales and letting costs % of GDV	3%	3%	3%	3%
Allowance for s106 and s278 (not covered by CIL)	£0	£0	£0	£0
Finance costs	6.5%	6.5%	6.5%	6.5%
Build and void period (months)	10	14	8	8
Developer return % GDV	20%	20%	20%	20%
SDLT & agent fees per sq m (if viable)	£0	£0	£0	£3

	Town centre comparison shops ¹³	Retail warehouse	Small convenience store	Supermarket
Floorspace sq m	800	6,000	300	1,100
Storeys	2	1	1	1
Site coverage	80%	40%	40%	35%
Rent per sq m	£164	£135	£165	£175
Yield	7.60%	7.50%	6.50%	5.50%
Purchaser costs % GDV	5.80	5.80	5.80	5.80
Build costs per sq m including environmental standards	£789	£546	£1,002	£1,183
External works % of base build costs	10%	10%	10%	10%
Professional fees % of construction	12%	12%	12%	12%
Sales and letting costs % of GDV	3%	3%	3%	3%
Allowance for s106 and s278 (not covered by CIL)	£0	£0	£0	£0
Finance costs	6.5%	6.5%	6.5%	6.5%
Build and void period (months)	12	8	7	12
Developer return % GDV	20%	20%	20%	20%
SDLT & agent fees per sq m (if viable)	£26	£61	£7	£20

¹³ Also includes an allowance of £28,000 for demolition

	Full service hotel	Budget hotel	Leisure development	Care home
Floorspace sq m	10,000	2,450	3,800	2,940
Storeys	4	3	2	2
Site coverage	50%	50%	80%	40%
Rent per sq m	£126	£109	£102	£140
Yield	7.50%	6.00%	8.50%	7.75%
Purchaser costs % GDV	5.80	5.80	5.80	5.80
Build costs per sq m including environmental standards	£1,353	£912	£1,177	£1,124
External works % of base build costs	10%	10%	10%	10%
Professional fees % of construction	12%	12%	12%	12%
Sales and letting costs % of GDV	3%	3%	3%	3%
Allowance for s106 and s278 (not covered by CIL)	£0	£0	£0	£0
Finance costs	6.5%	6.5%	6.5%	6.5%
Build and void period (months)	14	12	12	12
Developer return % GDV	20%	20%	20%	20%
SDLT & agent fees per sq m (if viable)	£0	£1	£0	£0

Summary viability assessments

- 5.12 The tables below summarise the detailed assessments, and represent the net value per square metre, the net costs per square metre; including an allowance for land cost and the balance between the two. We have also presented the threshold land value per sq m of development. This takes account of the different site coverage and the number of storeys for the notional developments. Full results are set out in Appendix 6.
- 5.13 It is important to note that the analysis considers development that might be built for subsequent sale or rent to a commercial tenant. However there will also be development that is undertaken for specific commercial operators, either as owners or pre-lets. In these circumstances the economics of the development relate to the profitability of the enterprise accommodated within the buildings rather than the market value of the buildings.

B Class Uses - Offices, industrial and warehouses

- 5.14 The delivery of new offices, industrial and warehouse space is important to the delivery of the Pre-submission Core Strategy. Herefordshire does not currently have a major office market although there remains a need for premises to accommodate office-based businesses serving the local population and other commercial organisations in the area, as well as to deliver the planned employment growth.
- 5.15 However, the viability assessments suggest that office development is not viable in Herefordshire, and neither is industrial or warehouse units viable. This is a similar situation to

most parts of the country, and fits with the narrative about the pattern of workspace development in the Enterprise Zone noted above. However as also discussed above, this does not necessarily mean that new premises will not be built, as there will be businesses requiring new premises in order to continue or grow the profitability of their commercial operations – even though the build may not produce a return in traditional property value terms.

Table 5.2: Offices

	Out of centre offices	Town centre offices
Value/sq m	£1,340	£1,373
Costs/sq m	£1,710	£2,093
Residual/sq m	-£370	-£720
Land benchmark/sq m	£54	£19
Viability 'headroom'	-£424	-£739

Table 5.3: Industrial and warehouse

	Industrial units	Warehouse units
Value/sq m	£641	£621
Costs/sq m	£922	£698
Residual/sq m	-£280	-£77
Land benchmark/sq m	£93	£93
Viability 'headroom'	-£373	-£169

- 5.16 We understand from the Council that within Herefordshire the principle driver of commercial development has traditionally come from owner occupiers, as detailed above, rather than speculative development. This tradition is continuing with developments on the Hereford Enterprise comprising almost exclusively of owner / occupier builds, the one exception is a circa 1000 sqm B1 / B1c speculative development undertaken by the Local Authority with significant financial assistance from European Regional Development Fund sources. The Enterprise Zone has had a number of explorative discussions with developers regarding the potential to undertake speculative development within the Zone. To date, although conversations have largely been positive and the wider aspirations of the Zone are applauded, no definitive speculative proposal has emerged. Conversely within its first proper 18 months of existence the Enterprise Zone has sold 1.82 ha of employment land to owner / occupiers which will result in 3,950 sqm of development. Alongside these sales a number of other businesses are progressing negotiations, at various stages, with the Enterprise Zone, this will lead to an additional 6.88 ha of land and 20,700 sqm of buildings developed within the Zone. This form of demand is not limited to the Enterprise Zone, other sites are also experiencing demand from owner / occupiers, for example on Whitestone Business Park to the East of the city, developers have recently completed a circa 4,200 sqm building as an extension for an existing occupier on the Business Park, whilst an owner / occupier at a stand-alone rural location recently developed a circa 1500 sqm extension to their manufacturing facility.

- 5.17 If Herefordshire Council chooses, it may be able to further incentivise new employment space development through funding support (such as grants or by setting up repayable rolling investment funds) or by acting as developer for some units to start the process off - such as the B1 grant funded development on the Enterprise Zone discussed above - and generate more critical mass (which will then build the clustering benefits etc.).

A Class uses

- 5.18 **Convenience retail** – delivery of convenience retail is required to support new housing development in the Pre-submission Core Strategy.
- 5.19 Convenience retail continues to be one of the best performing sectors in the UK. Leases to the main supermarket operators command a premium with investment institutions. Although there are some small regional variations on yields, they remain generally strong with investors focusing primarily on the strength of the operator covenant and security of income. There is also evidence that the values increase as the size of store increases, which is due to a range of factors including an increased range of comparison goods being included within a weekly convenience shop; larger stores becoming shopping destinations rather than relying on passing trade; as well as larger stores generally operated by brands with strong covenants. More recently there has been an expansion of smaller convenience stores by the major supermarket operators, and the market evidence suggests that these ‘nest’ within the larger store catchments and command good values. This expansion in smaller convenience stores has been in new build as well as conversions of existing buildings such as former pubs.
- 5.20 At a local level there are not enough transactions to provide a broad view of the values. However, a review of convenience retail across the country shows very similar values for specific types of stores and therefore the evidence base for predominantly convenience retail provision can be approached on a wider regional or even national basis when considering viability.

Table 5.4: Convenience Retail

	Small convenience store	Supermarket
Value/sq m	£2,279	£2,857
Costs/sq m	£1,817	£2,249
Residual/sq m	£462	£608
Land benchmark/sq m	£125	£143
Viability 'headroom'	£337	£465

- 5.21 Both small convenience and supermarket development is shown to be viable in Herefordshire.
- 5.22 **Town centre comparison retail** – Part of the regeneration of Hereford City Centre and the market towns is dependent upon retail. We have tested town centre retail and this suggests that it is viable. However it is sensitive to location specific variations and would require redevelopment of a site with a relatively low existing use value – such as the recent ‘Old Market’ redevelopment in Hereford.

- 5.23 **Retail warehouse** – including large stores specialising in the sale of household goods (such as carpets, furniture and electrical goods), DIY items and other ranges of goods, catering mainly for car-borne customers. The viability assessment shows that schemes are viable.

Table 5.5: Comparison Retail

	Town Centre	Retail Warehouse
Value/sq m	£1,938	£1,616
Costs/sq m	£1,648	£1,165
Residual/sq m	£290	£452
Land benchmark/sq m	£139	£125
Viability 'headroom'	£151	£327

Leisure development

- 5.24 We have tested a full service hotel, a budget hotel and a mixed leisure scheme (cinema, gym etc.).
- 5.25 **Hotels** – The Pre-submission Core Strategy includes provision of a full service hotel as part of the objective of increasing business tourism. However, full service hotels have mixed performance outside the major conurbations and the example modelled in Herefordshire is not viable. There has been rapid national expansion in the budget hotels sector, providing the profile of returns sought by investors. The out of town centre budget hotel scheme modelled shows that this type of development can be viable in Herefordshire. It may be possible to incentivise delivery of a full service hotel through making a low cost site available or through re-use of an existing building. Alternatively, the Council may choose to act as a joint venture partner, although within the hotel sector the most common joint venture opportunities are within the budget hotel sector.
- 5.26 **Leisure** - A mixed leisure scheme has been tested and our analysis shows that this sort of scheme is currently not viable. However we are aware that for mixed use schemes, leisure uses may be cross-subsidised by other elements of the scheme in order to build footfall and encourage lettings for the more viable parts of schemes. In other situations, leisure uses may take advantage of low value 'B' space if the necessary consents can be obtained.

Table 5.6: Hotel and Leisure Development

	Full service hotel	Budget hotel	Mixed leisure
Value/sq m	£1,509	£1,631	£1,078
Costs/sq m	£2,154	£1,574	£1,806
Residual/sq m	-£645	£57	-£729
Land benchmark/sq m	£22	£29	£27
Viability 'headroom'	-£667	£28	-£756

Care homes

5.27 In addition to the uses above we have tested the viability of care homes. While the way social care is provided is likely to continue to change, with more care provided within people’s homes, it is certain that there will still be a need for suitable accommodation for people with more intensive care requirements. There has been significant private sector investment in care homes in the recent past, fuelled by investment funds seeking new returns. However there have been concerns about the occupancy rates and the ability to sustain prices¹⁴. The high level analysis suggests that care homes are unlikely to be viable in Herefordshire.

Table 5.7: Care homes

	Care home
Value/sq m	£1,622
Costs/sq m	£1,853
Residual/sq m	-£231
Land benchmark/sq m	£54
Viability 'headroom'	-£285

5.28 In order to ensure suitable provision of care homes it may be necessary to use public sector resources, either to deliver and operate care homes, or to provide the facilities and contract in suitable management.

Other Non-residential Development

5.29 In addition to the development considered above there are other non-residential uses such as community facilities. Our approach to this issue is that the commercial values for community uses are £0 but there are build costs of around £1,800 per sqm plus the range of other development costs; with a net negative residual value. Therefore community uses can be considered as not viable and will require funding. In the past this has been through public sector funding with developer contributions, as well as local fundraising etc.

5.30 Other facilities such as education and health services are part of the Pre-submission Core Strategy. While there are revenue streams associated with these uses, these are normally from the public sector. Capital development will generally use public sector funds (even if they are worked through arrangements such as PFI) and in most cases these sorts of facilities are not considered viable.

Sensitivity testing

5.31 It is likely that costs and values will vary between actual schemes as well as change in the future, and a set of sensitivity tests have been run to determine at what point viability changes. This indicates that:

- A 10% increase in values would see the same set of viable uses and non-viable uses, although viability improves;

¹⁴ E.g. the 2011 Public Accounts Committee findings - <http://www.bbc.co.uk/news/health-16035012>

- Both a 15% and a 20% increase in values would further improve viability for the same set of viable uses and non-viable uses. Care homes become viable at 20% increase in values but no other uses have become viable at these stages;
- A 10% increase in costs would see town centre comparison retail become unviable. Budget hotels would also become unviable;
- A 5% decrease in costs would see the same set of viable uses and non-viable uses.

5.32 The main conclusion from these sensitivity tests is that town centre retail is most at risk of becoming unviable if the costs base changes, along with budget hotels. This will be important if new retail space is planned as part of the regeneration of Hereford and is expected to cross subsidise other parts of the scheme.

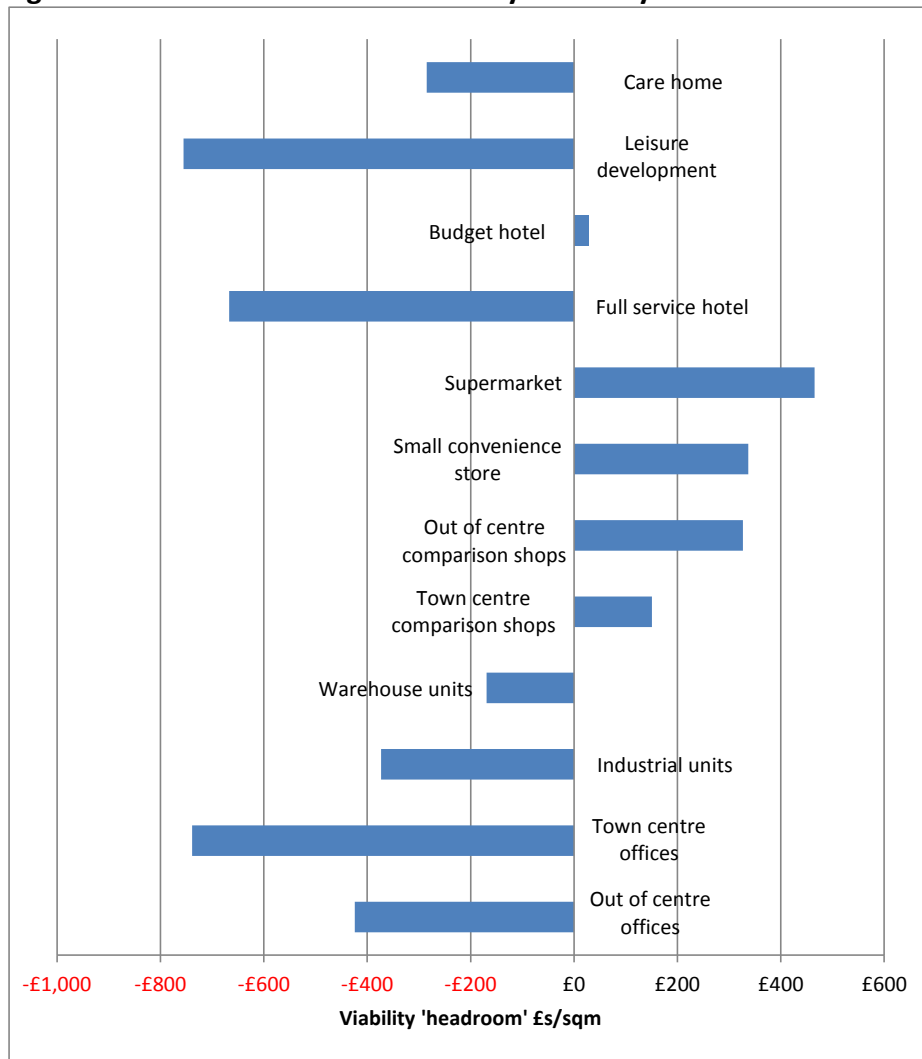
5.33 Additionally, there have been sensitivity tests to determine the likely impact of s106/278 contributions. Based on previous contributions and discussions with Herefordshire Council, estimates have been made of likely s106/278 contributions and these have been applied within the viability assessments (although not reported here). The findings show that this will generally reduce the viability (as costs will increase) but does not change the range of viable or unviable uses.

Summary of viability assessment

5.34 The graph below summarises the viability ‘headroom’ for each of the non-residential uses tested, and this clearly shows that:

- Both convenience and comparison retail are viable.
- Budget hotels are just viable and full service hotels are not viable.
- The other uses including ‘B’ space are not viable.

Figure 5.1: Non-residential viability summary



**HEREFORDSHIRE
COUNCIL - 2014 UPDATED
ECONOMIC VIABILITY
ASSESSMENT**

Whole Plan Viability Assessment

Three Dragons

**FINAL REPORT
TECHNICAL APPENDIX
May 2014**



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APPENDIX 1 – POLICY ASSESSMENT

Plan policies	Policy Aim	Viability implications	How the costs will be met	Implications for viability testing in the EVA
Section 3: Vision, Objectives & Spatial Strategy				
SS1 – Presumption in favour of sustainable development	Policy reflecting the Government’s presumption in favour sustainable development	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
SS2 – Delivering new homes	Policy setting out targets and distribution of new housing in the County	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
SS3 – Releasing land for residential development	Policy setting out the aim to ensure targets are achieved subject to infrastructure requirements and indication of triggers for review	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
SS4 – Movement and transportation	Strategic policy setting out main ambitions in respect of movement and transportation. Including various infrastructure schemes, however, these are not set out in this policy as a cost upon development	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
SS5 – Employment provision	Policy setting out employment land target and ambitions for employment land mix	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing

Plan policies	Policy Aim	Viability implications	How the costs will be met	Implications for viability testing in the EVA
SS6 – Environmental quality and local distinctiveness	Policy setting out overall approach to environmental quality and protection of environmental quality	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
SS7 – Addressing climate change	Strategic policy setting out how the plan will address aspect of climate change	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
Section 4: Place Shaping Policies				
HD1 – Hereford	A strategic Hereford wide distribution policy.	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
HD2 – Hereford city centre	Specific city centre regeneration policy	Yes a set of specific infrastructure requirements associated with the development	S106/CIL	No decision yet whether items will be funded by CIL or as s106 requirement, therefore not possible to test in detail. EVA shows overall capacity of strategic site to meet additional costs of infrastructure (either as s106 and/or CIL payment).
HD3 – Hereford movement	Hereford wide transport strategy	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing

Plan policies	Policy Aim	Viability implications	How the costs will be met	Implications for viability testing in the EVA
HD4 – Northern urban expansion (Holmer West)	Specific urban expansion policy	Yes a set of specific infrastructure requirements associated with the development	S106/CIL	No decision yet whether items will be funded by CIL or as s106 requirement, therefore not possible to test in detail. EVA shows overall capacity of strategic site to meet additional costs of infrastructure (either as s106 and/or CIL payment).
HD5 – Western urban expansion (Three Elms)	Specific urban expansion policy	Yes a set of specific infrastructure requirements associated with the development	S106/CIL	No decision yet whether items will be funded by CIL or as s106 requirement, therefore not possible to test in detail. EVA shows overall capacity of strategic site to meet additional costs of infrastructure (either as s106 and/or CIL payment).
HD6 – Southern urban expansion (Lower Bullingham)	Specific urban expansion policy	Yes a set of specific infrastructure requirements associated with the development	S106/CIL	No decision yet whether items will be funded by CIL or as s106 requirement, therefore not possible to test in detail. EVA shows overall capacity of strategic site to meet additional costs of infrastructure (either as s106 and/or CIL payment).

Plan policies	Policy Aim	Viability implications	How the costs will be met	Implications for viability testing in the EVA
HD7 – Hereford employment provision	Hereford wide policy to identify employment provision	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
BY1 – Development in Bromyard	Non-strategic	Yes a set of specific infrastructure requirements associated with the development	S106/CIL	No decision yet whether items will be funded by CIL or as s106 requirement, therefore not possible to test in detail. EVA shows overall capacity of strategic site to meet additional costs of infrastructure (either as s106 and/or CIL payment).
BY2 – Land at Hardwick Bank	Specific urban expansion policy	Yes a set of specific infrastructure requirements associated with the development	S106/CIL	No decision yet whether items will be funded by CIL or as s106 requirement, therefore not possible to test in detail. EVA shows overall capacity of strategic site to meet additional costs of infrastructure (either as s106 and/or CIL payment).

Plan policies	Policy Aim	Viability implications	How the costs will be met	Implications for viability testing in the EVA
KG1 – Development in Kington	Non-strategic	Yes a set of specific infrastructure requirements associated with the development	S106/CIL	No decision yet whether items will be funded by CIL or as s106 requirement, therefore not possible to test in detail. EVA shows overall capacity of strategic site to meet additional costs of infrastructure (either as s106 and/or CIL payment).
LB1 – Development in Ledbury	Non-strategic	Yes a set of specific infrastructure requirements associated with the development	S106/CIL	No decision yet whether items will be funded by CIL or as s106 requirement, therefore not possible to test in detail. EVA shows overall capacity of strategic site to meet additional costs of infrastructure (either as s106 and/or CIL payment).
LB2 – Land north of the Viaduct	Specific urban expansion policy	Yes a set of specific infrastructure requirements associated with the development	S106/CIL	No decision yet whether items will be funded by CIL or as s106 requirement, therefore not possible to test in detail. EVA shows overall capacity of strategic site to meet additional costs of infrastructure (either as s106 and/or CIL payment).

Plan policies	Policy Aim	Viability implications	How the costs will be met	Implications for viability testing in the EVA
LO1 – Development in Leominster	Non-strategic	Yes a set of specific infrastructure requirements associated with the development	S106/CIL	No decision yet whether items will be funded by CIL or as s106 requirement, therefore not possible to test in detail. EVA shows overall capacity of strategic site to meet additional costs of infrastructure (either as s106 and/or CIL payment).
LO2 – Leominster urban expansion	Specific urban expansion policy	Yes a set of specific infrastructure requirements associated with the development	S106/CIL	No decision yet whether items will be funded by CIL or as s106 requirement, therefore not possible to test in detail. EVA shows overall capacity of strategic site to meet additional costs of infrastructure (either as s106 and/or CIL payment).
RW1 – Development in Ross on Wye	Non-strategic	Yes a set of specific infrastructure requirements associated with the development	S106/CIL	No decision yet whether items will be funded by CIL or as s106 requirement, therefore not possible to test in detail. EVA shows overall capacity of strategic site to meet additional costs of infrastructure (either as s106 and/or CIL payment).

Plan policies	Policy Aim	Viability implications	How the costs will be met	Implications for viability testing in the EVA
RW2 – Land at Hildersley	Policy setting targets and general principles for development in Ross-on-Wye including non-strategic sites	Yes a set of specific infrastructure requirements associated with the development	S106/CIL	No decision yet whether items will be funded by CIL or as s106 requirement, therefore not possible to test in detail. EVA shows overall capacity of strategic site to meet additional costs of infrastructure (either as s106 and/or CIL payment).
RA1 – Rural housing strategy	Specific urban expansion policy	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
RA2 – Herefordshire’s villages	Policy setting out the distributions of housing in rural areas	Yes a set of site specific infrastructure requirements incorporate within the development	N/A	No implications for viability testing
RA3 – Herefordshire’s countryside	Criteria for the development of housing in specified villages.	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
RA4 – Agricultural, forestry and rural enterprise dwellings	Criteria for development of agricultural and rural enterprise dwellings	Occupancy restrictions will affect values.	S106	Not tested as provision is related to individual business requirements rather than property development values

Plan policies	Policy Aim	Viability implications	How the costs will be met	Implications for viability testing in the EVA
RA5 – Re-use of rural buildings	Criteria for proposals for the re-use of rural buildings	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
RA6 – Rural economy	Policy promoting enhancement of the rural economy	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
Section 5: General Policies				
Social Progress				
H1 – Affordable housing – thresholds and targets	Policy setting out thresholds and targets for affordable housing	Yes requirements will affect viability by altering the value of development.	S106	Yes targets and thresholds have been costed in the viability appraisal
H2 – Rural exception sites	Policy to set up criteria for rural exception sites	Yes these requirements will impact on viability	S106	Policy states that viability is to be determined on a case by case basis as required and therefore not tested on plan-wide basis

Plan policies	Policy Aim	Viability implications	How the costs will be met	Implications for viability testing in the EVA
H3 – Ensuring an appropriate range and mix of housing	Policy encouraging a range and mix of housing	There are no specific targets set out in the Core Strategy for the range or mix of housing. These will be addressed in Area and or neighbourhood plans, and determined by negotiation on a site by site basis.	S106/CIL	No implications for viability testing.
H4 – Traveller sites	Criteria for the provision of travellers sites	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
SC1 – Social and community facilities	Policy ensuring social and community facilities are provided alongside other forms of development	Yes a set of site specific infrastructure requirements associated with future development	S106/CIL	No decision yet whether items will be funded by CIL or as s106 requirement, therefore not possible to test in detail. EVA shows overall capacity of future development (including strategic sites) to meet additional costs of infrastructure (either as s106 and/or CIL payment).

Plan policies	Policy Aim	Viability implications	How the costs will be met	Implications for viability testing in the EVA
OS1 – Requirement for open space, sport and recreation facilities	Policy setting out requirements for open space, sport and recreation facilities	Yes a set of site specific infrastructure requirements associated with future development	S106/CIL	An allowance has been made for open space within the viability testing. No decision yet whether items will be funded by CIL or as s106 requirement, therefore not possible to test in detail. EVA shows overall capacity of future development (including strategic sites) to meet additional costs of infrastructure (either as s106 and/or CIL payment).
OS2 – Meeting open space, sport and recreation needs	Policy to ensure open space, sport and recreational needs are met	Yes a set of site specific infrastructure requirements associated with future development	S106/CIL	An allowance has been made for open space within the viability testing. No decision yet whether items will be funded by CIL or as s106 requirement, therefore not possible to test in detail. EVA shows overall capacity of future development (including strategic sites) to meet additional costs of infrastructure (either as s106 and/or CIL payment).
OS3 – Loss of open space, sport and recreation facilities	Policy to safeguard existing open space, sport and recreation	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing

Plan policies	Policy Aim	Viability implications	How the costs will be met	Implications for viability testing in the EVA
MT1 – Traffic management, highway safety and promoting active travel	Policy to ensure developments include appropriate traffic management	Yes a set of site specific infrastructure requirements incorporate within the development	S106/CIL	No decision yet whether items will be funded by CIL or as s106 requirement, therefore not possible to test in detail. EVA shows overall capacity of future development (including strategic sites) to meet additional costs of infrastructure (either as s106 and/or CIL payment)..
Economic Prosperity				
E1 – Employment provision	Policy ensuring a range of employment uses are provided across Herefordshire	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
E2 – Redevelopment of existing employment land and buildings	Policy to safeguard the best employment land in the county from alternative uses	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
E3 – Homeworking	Criteria to determine proposals for working at home	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing

Plan policies	Policy Aim	Viability implications	How the costs will be met	Implications for viability testing in the EVA
E4 – Tourism	Policy promoting tourism in appropriate circumstances across the county	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
E5 – Town centres	Policy to promote vitality and viability of town centres	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
E6 – Primary shopping areas and primary and secondary shopping frontages	Policy to ensure the retail character of town centres remain	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
Environmental Quality				
LD1 – Landscape and townscape	Policy to protect and enhance existing landscape and townscapes	Yes a set of site specific requirements incorporate within the development	S106	Part of normal development standards – no specific viability implications
LD2 – Biodiversity and geodiversity	Policy to ensure biodiversity and geodiversity is restored and enhanced	Yes a set of site specific requirements incorporate within the development	S106	Part of normal development standards – no specific viability implications
LD3 – Green infrastructure	Policy to protect, manage and delivery green infrastructure	Yes a set of site specific requirements incorporate within the development	S106	Part of normal development standards – generally no specific viability implications although allowance for open space is included within viability testing

Plan policies	Policy Aim	Viability implications	How the costs will be met	Implications for viability testing in the EVA
LD4 – Historic environment and heritage assets	Policy to protect and enhance the county’s historic environment and heritage assets	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
SD1 – Sustainable design and energy efficiency	Criteria for sustainable design and energy efficiency	Yes a set of site specific requirements incorporate within the development	S106	Part of normal development standards – no specific viability implications
SD2 – Renewable and low carbon energy	Policy supporting proposal for renewal and low carbon energy proposals	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
SD3 – Sustainable water management and water resources	Policy to promote the sustainable use and management of water	Yes a set of site specific infrastructure requirements incorporate within the development	S106	This has been costed within the viability appraisal with allowance made for SUDS in assessing net developable area and specific costs per dwelling added to achieve Code Level 5 water usage
SD4 – Waste water treatment and river water quality	Policy outlining criteria for water treatment and protecting river water quality	Yes a set of site specific infrastructure requirements incorporate within the development	S106	This has been costed within the viability appraisal with allowance made for SUDS in assessing net developable area and specific costs per dwelling added to achieve Code Level 5 water usage

Plan policies	Policy Aim	Viability implications	How the costs will be met	Implications for viability testing in the EVA
M1 – Minerals Safeguarding Areas	Policy identifying and safeguarding known mineral resources	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
M2 – Annual apportionments for mineral provision	Policy setting out targets for mineral provision	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
M3 – Criteria for the assessment of minerals related development	Policy setting out criteria for determining mineral development	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
M4 – Small scale non-aggregate building stone and clay production	Criteria for small scale non-aggregate mineral production	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
M5 – Secondary (reused and recycled) aggregates	Policy setting out criteria for this use of secondary aggregate	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
M6 – Moreton-on-Lugg railhead	Specific policy for Moreton-on-Lugg Railhead	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing

Plan policies	Policy Aim	Viability implications	How the costs will be met	Implications for viability testing in the EVA
W1 – Waste streams and targets	Policy outlining main waste stream and targets	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
W2 – Location of new waste management facilities	Criteria for location of new waste facilities	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
W3 – Safeguarding existing and permitted waste treatment sites	Policy safeguarding existing sites	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
W4 – Technologies for biological treatment of waste	Policy regarding emerging waste technologies	No specific requirements set out in the policy itself which would impact upon viability	N/A	No implications for viability testing
W5 – Waste minimisation and management in new developments	Policy to ensure the minimisation of waste in the new development	Yes a set of site specific infrastructure requirements incorporate within the development	S106	Part of normal development standards – no specific viability implications
Section 6: Delivery, Implementation and Monitoring				

Plan policies	Policy Aim	Viability implications	How the costs will be met	Implications for viability testing in the EVA
ID1 – Infrastructure delivery	Policy setting out the Council’s approach to Infrastructure Delivery	No specific requirements set out in the policy itself which would impact upon viability	N/A	EVA shows overall capacity of future development (including strategic sites) to meet additional costs of infrastructure (either as s106 and/or CIL payment).

APPENDIX 2 - NOTES FROM DEVELOPMENT INDUSTRY WORKSHOP

Notes of development industry workshop

Hereford United Football Club

19th July 2012

Two workshops were held and this is a combined notes cover both the morning and afternoon workshops.

Introductions

The morning workshop was introduced by Andrew Ashcroft, Assistant Director Economic, Environmental and Cultural Services, Herefordshire Council; and the afternoon workshop by Yvonne Coleman, Planning Obligations Manager, Herefordshire Council.

Siobhan Riddle (SR), Senior Planning Officer at Herefordshire County Council (SR) provided an update for both workshops on the Core Strategy process and provided a paper copy of the presentation available:

- Core Strategy consultation last year amongst the parishes and wards
- Timescale revised to 2031
- Housing figures revised figs
- Cabinet endorsed further consultation for the full draft Core Strategy early 2013, with a late summer pre-submission publication, EIP late 2013 and adoption in spring 2014.

SR explained that setting CIL is optional for Herefordshire Council (HC) but that it intended to do so and that part of the issues was to respond to the changes in the way that S106 contributions could be set and the restriction on pooling contributions from more than five schemes that would be introduced nationally in April 2014. In addition CIL offers a greater transparency about what funds are collected, what they have been spent on and the infrastructure items being delivered. CIL is also necessary to help fund infrastructure particularly in the current economic climate.

Setting a CIL is based on the Regulations set out in 2010 and 2011. SR explained that the basis for setting a charge is to strike an appropriate balance between funding infrastructure and not jeopardising most development. SR also explained that there is relief from CIL for affordable housing and charities.

CIL is:

- Set as £ per sq m net additional floor space
- Based on gross internal area (GIA)

- Becomes due the date development commences
- Falls on owner of land – not developer
- Dependent on an up to date development plan
- Based on evidence of viability and a demonstrated infrastructure gap

The report to the council providing viability evidence is due in October 2012. The council hopes to consult on a preliminary draft charging schedule in February 2013 and then on a draft charging schedule in June 2013, followed by examination and adoption in early 2014. The charging schedule can have nil rates for some uses but this has to be justified in viability terms.

SR's presentation was followed by Q+A. This covered:

- Pooling of S106 – it was noted that S106 agreements will continue but revenue can't be pooled from more than 5 schemes post April 2014 (in line with regulations). The Herefordshire SPD tariff will no longer exist. The CIL viability testing will take account of a notional residual s106 cost (to meet site specific measures).
- If development is consented before the charging schedule is adopted it will not be liable for CIL.
- SR's presentation included reference to the recent Local Housing Market Assessment (LHMA), which looked at housing need by ward but also covered some aspects of viability. This work came to broadly same conclusions about viability as the earlier Three Dragons work. The LHMA concluded that less affordable housing was required in Bromyard (on the basis of need) than the earlier viability study suggested (on the basis of the viability testing).
- The discussion included the role of New Homes Bonus in funding infrastructure as well as S106 and CIL, and the distribution of funds back to town or parish – noting that further guidance on the amount of CIL that should be allocated to local communities, is still awaited from DCLG.

CIL Viability Testing

Lin Cousins (LC) then started the CIL viability testing session by outlining the items to be covered

- CIL and viability testing (and guidance)
- Approach to the study
- Assumptions
- Comment and feedback

It was stated that the discussion would be covered within a follow up note (this document) and that comments would not be attributable. People would have a further opportunity to comment after the workshop if they wished. The point was made that feedback was important as unless the consultant team was made aware of other views, it would be assumed that the attendees agreed with the assumptions made and that they would be used within the viability testing.

CIL Principles

LC set out key CIL principles – to complement the initial presentation from SR:

- CIL is set out as £s per sq metre for developments of 1 dwelling or more or over 100sq m additional on-residential floorspace and is not negotiable unlike S106
- Justification for the levy rate(s) should include:
 - There is a need (Infrastructure funding deficit)
 - The setting of the levy rates is informed by viability assessments
 - Charging authorities are not allowed to set rates for policy purposes
- There can be different rates for different areas / “*intended uses of development*”
- Exemptions include affordable housing and charities
- Charging authorities will have to have a Regulation 123 list setting out how the money will be spent
- Can collect in one place and spend in another
- Identified at planning permission, paid at commencement
- There will still be s106 contributions in order to make the development acceptable in planning terms. This will have to meet the three tests:
 1. necessary to make the development acceptable in planning terms
 2. directly related to the development
 3. fairly and reasonably related in scale and kind to the development

The discussion included the process and timing of CIL rate reviews and it was explained that re-examination would be necessary and that the study would suggest indicators to help identify when this might take place.

The certainty provided by CIL was welcomed as a tool for negotiating with landowners.

Adopted CILs in other Areas

LC provided information about CIL rates already adopted by other local authorities (following examination).

In almost all cases residential development attracts CIL but there is more variance in the approach for non-residential – retail often attracts CIL, especially larger format convenience, B space rarely attracts CIL and hotels/student accommodation will sometimes attract a charge.

CIL Location	Residential	Retail	Office	Industrial/ warehouse	Other
London Mayors	£20 - £50	£20 - £50	£20 - £50	£20 - £50	£20 - £50
Newark & Sherwood	£45 - £75 (C2 £0)	£100 - £125	£0	£0 - £20	£0
Portsmouth	£105	£105 OOC £53 ITC	£0	£0	£53 hotels
Redbridge	£70	£70	£70	£70	£70
Shropshire	£40 - £80	£0	£0	£0	£0
Wandsworth (nya)	£0 - £575	£0 - £100	£0 - £100	£0	£0

Viability Guidance

In comparison to a year ago, there is now guidance on viability testing:

NPPF

“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.”

“Local planning authorities shouldassess the likely cumulative impacts on development in their area of all existing and proposed local standards,”

Viability Testing Local Plans - Advice for planning practitioners

*“The approach to assessing plan viability should recognise that it can only provide high level assurance
 “*

“The advice and input of local partners, particularly those with knowledge of the local market and development economics, and those who will be involved in delivering the plan, should be sought at each stage.”

“..... the role of an assessment is to inform the decisions made by local elected members to enable them to make decisions that will provide for the delivery of the development upon which the plan is reliant...”

The viability tests will then be used to set an appropriate CIL rate - *“Charging authorities will use that evidence to strike an appropriate balance between the desirability of funding infrastructure from the levy and the potential effects of the levy upon the economic viability of development across their area.”* (CLG 2011)

During discussion it was noted that

- Charging authorities could not double-fund infrastructure through CIL and through s106; and that once the charging authority had set out its list of infrastructure to be funded from CIL (the published Reg 123 list) it would not be able to take S106 contributions for those items.
- While CIL was not negotiable (barring exceptional circumstances), s106 and the proportion of affordable housing would still be negotiable – and therefore CIL should not be set at a level that would squeeze other requirements.
- The CIL rate can be reviewed at any time – but it is not a simple process and will require re-examination etc. and will probably be triggered by significant changes in values or costs. Therefore a CIL rate should leave enough viability ‘headroom’ to accommodate short term market downturn.
- CIL liability is due when development commences but the charging authority can put an instalment policy in place. Attendees suggested that liability could be linked to first occupancy etc.
- The Reg 123 list can be constantly changed by the charging authority.
- The issue of phosphates drainage was raised and attendees suggested that addressing this issue might be part of the Infrastructure Delivery Plan and on the Reg 123 list.
- The rate of levy is a function of the size of the infrastructure funding gap and how much development can afford to pay. Even if the funding gap becomes bigger the viability will determine how much development is asked to pay.
- The Hereford relief road was discussed – estimated to cost over £100m with different views on the relative importance of this versus more local/neighbourhood infrastructure aspirations. It was noted that this workshop was about viability rather than the priority infrastructure items for the County, and that the IDP would deal with this point in more detail as part of the Core Strategy process.
- Clarity was sought about the CIL liability from replacing older dwellings with new ones. *(Post meeting note - The levy will not be charged on changes of use that do not involve an increase in floorspace. Charges will on the net additional increase in floorspace of any given development).*

Residual value approach

LC explained that the analysis (for residential and non residential uses) would be undertaken using a residual value approach, in which all the costs in a scheme (including planning obligations) are deducted from the scheme's total value. The residual value which results is then compared with a benchmark land value and a scheme considered being viable if the residual value exceeds the benchmark.

Some workshop participants questioned whether the overall process is too general to properly take account of the variability of actual development and then how it supported preparation of the core strategy.

Benchmark Land Values

VOA based evidence and analysis was presented showing that benchmark land values for:

- Infill/previously used land might be around £550,000 to £600,000 per gross ha. (based on 20% uplift on industrial values).
- Greenfield urban extension land values might be at least £200,000 per gross ha. (based on at least 10 times agricultural values).

Discussion around this issue included:

- Agriculture is relatively profitable in Herefordshire so landowners are happy to sit on land until values rise, even if that takes a generation or two – banks are happy to lend to farmers and some farmers are actively buying land.
- This lack of inclination to sell reflects the current low point in the economic cycle as well as other pressures on viability such as planning obligations and affordable housing requirements.
- Uplift on agricultural values will have to be more than the 10 times suggested because of capital gains tax, inheritance tax and the general need to share out the monies raised across many members of the same family.
- In addition the high rental values for agricultural land (£200/acre) mean that it is often financially attractive to hold on to the land.
- Although counter intuitive, bigger parcels of land do not reduce per acre value.
- For brownfield sites EUV + 20% is not viable for relocation different from vacant sites - disappears in relocation costs and tax. While the Chief Planning Inspector accepted 20% in London it may be that in lower value areas it may need to be higher.
- Known examples of recent land sales were often distressed sales e.g. Marden - 12 units completed up to roof, renegotiating; 2 developments in Leominster including Barons' Cross, difficult sites. Nothing in the pipeline in the Lugg Valley.

- There was some feeling that the market was starting to recover, with other locations (e.g. Cambridgeshire) seeing trading returning to 2007 levels and developments of 150-200 units.

Overall it seemed that there will be a section of rural landowners who do not fall into the “willing landowner” category defined in the NPPF; and that of the remainder they are likely to require at least 20 times agricultural value (say £400,000/gross ha) in order to part with the land and there may be expectations of open market housing values say £550,000 to £600,000 per hectare.

Non-residential Viability Testing

Dominic Houston set out the initial assumptions to be used in the non-residential viability testing. He set out the classes of development to be considered:

- Offices
- Industrial
- Warehouse
- Hotels
- Health and fitness
- Care homes (Extra Care and Sheltered picked up as separate category in residential)
- Sui Generis?
- Agricultural – a special case?

DH noted that there was little evidence on values for agricultural or horticultural buildings (with agricultural buildings almost only sold as part of their host farms and very few examples nationally of speculative development of glasshouses) and that Sui Generis was tested using analogous types of developments. He also noted that there have been recent challenges to the notion of setting different charges for different retail uses (Sainburys in Poole) and that ultimately this aspect may be tested in the courts. He asked for any available evidence to be brought to the consultant team’s attention.

Because of the paucity of recent local transactions for some uses some of the values have considered wider areas. In particular B space has included the wider West Midlands excluding Birmingham; and convenience retail, leisure and care homes have looked at data across Britain excluding London. For convenience retail the assumptions are based upon the strength of the operator’s covenant being a more important determinant of value than location, particularly for larger stores.

Convenience Retail - Store Size	Rent/sqft	Rent/sqm	Yield %
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Convenience <1000 sqm	£12.00	£129	6.11
Convenience 1001-2500 sqm	£13.00	£140	5.83
Convenience 2501-5000 sqm	£17.00	£183	5.18
Convenience >5000 sqm	£20.00	£215	4.98

Comparison Retail Store Location/Size	Rent/sqft	Rent/sqm	Yield %
Town Centre comparison	£20.00	£215	6.5
<i>Hereford</i>	<i>£21.00</i>	£226	6.5
<i>Outside Hereford</i>	<i>£20.00</i>	£215	7.8
Out of centre comparison/retail warehouse	£11.40	£123	7.6
<i>up to 1000 sqm</i>	<i>£11.30</i>	£122	8.0
<i>1001-2500 sqm</i>	<i>£13.60</i>	£146	6.7
<i>over 2500 sqm</i>	<i>£11.00</i>	£118	7.2

B Space Type/Size	Rent/sqft	Rent/sqm	Yield %
<i>Office 50 – 100 sqm</i>	<i>£9.40</i>	£101	6.5
<i>Office >100sqm</i>	<i>£8.00</i>	£86	7.0
<i>1,500 sqm industrial</i>	<i>£7.40</i>	£80	7.8
<i>2,000 sqm warehouse</i>	<i>£3.60</i>	£39	7.8

Hotels/leisure/care homes	Rent/sqft	Rent/sqm	Yield %
Hotels	£11.80	£127	7.3
Mixed Leisure/Fitness	£8.00	£86	7.5
Care Homes	£8.20	£88	6.3

Build costs by development type – Source BCIS.	Cost/sqft	Cost/sqm
Convenience Retail	£91	£980
Town Centre Comparison Retail	£61	£660
Out of Centre Comparison Retail	£44-£50	£480-£540
Office	£103	£1,100
Industrial	£50	£540
Warehouse	£40	£430
Hotels	£78-£114	£839-£1,223
Leisure	£92	£994
Care Homes	£100	£1,080

In addition to these build costs an allowance of 10% is made for external works and £20 psm in order to produce the 20% efficiency standards required by 2013.

Professional fees	12% of build costs
Marketing fees	3% of GDV
Finance	7% of development cost
Developer return	20% of development cost

Purchaser costs	5%
Acquisition costs	Varies – c 2.0% + SDLT
Other	An allowance for S106 would be included in the testing.

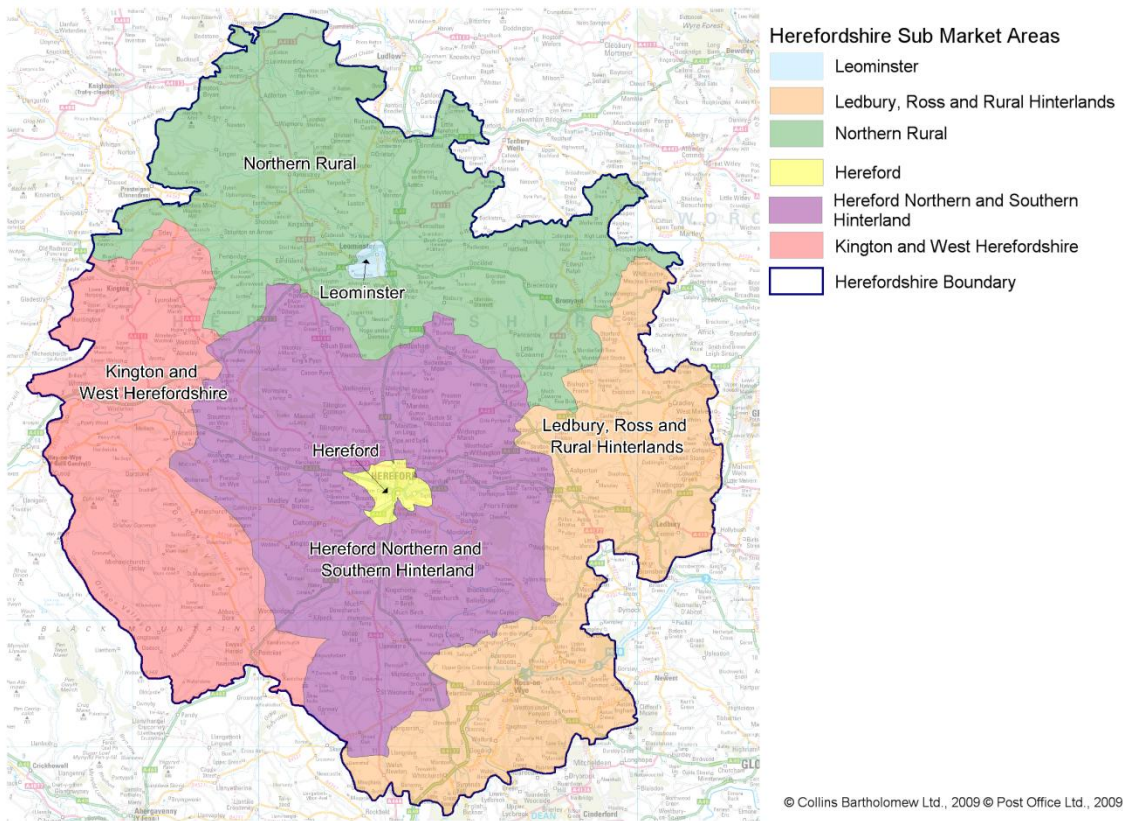
Discussion included:

- The importance of including costs of providing for utilities, external works and SUDS in the viability testing.
- The view that retail should pay a rate of CIL at least as much as residential if the viability was there.
- Concern that CIL would render employment uses unviable, and that if commercial development viability is tight, it should have a zero CIL charge.
- The lack of office development in the County to provide evidence of viability
- There was some discussion about re-use of agricultural buildings (for residential rather than for offices) and the likely liability for CIL for net new space.
- Queries were raised about how abnormal development costs are accounted for. The discussion included the likelihood that site specific issues known to both the developer and the landowner would result in the land price being adjusted. However where there are wider issues e.g. phosphates drainage then the position may not be so clear cut and land values may not fall enough to allow development to come forward.
- Most sites will be greenfield and this should be the main focus of the viability testing
- There was evidence of polytunnel development in Herefordshire which was happening to improve the profitability of farms. Question was raised whether a CIL charge was an option for polytunnels (putting aside the question of viability)
- There have been limited B space transactions, but some activity in the Enterprise Zone.
- On the issue of inclusion of voids periods – there was no clear agreement that they should be included as in the current market developers would only build if there potential tenants were identified – particularly with the rates liability on empty premises.
- Detailed comments about the draft assumptions presented were that:
 - Warehouse costs were right
 - That care home development costs should be higher – up to £2,000 sqm
 - New build warehouses are getting less than £5 per sq ft e.g. £3 per sq ft in Leominster warehouses, Hereford development £5 per sq ft with tenant lined up (newbuild £4.50 per sq ft 5,000 sq ft.). Yield better than 7%.
 - £20-25 per sq m for prime town centre retail is realistic.

Residential Viability Testing

Lin Cousins set out the basis for the residential viability testing and initial assumptions to be used.

- CIL and affordable housing (AH) will be tested in combination
- 2 types of testing will be used:
 - Notional 1 hectare site (for an overview)
 - Series of case study sites – representative of variety of sites likely to come forward
- The initial thinking is to test at 5% intervals around policy for AH and £25 'steps' for CIL.
- That value and cost assumptions from previous studies will be updated.
- The initial review showed that house price areas not changed from previous study – as set out below



Market values

A table of updated values was presented for comment.

	Detached			Semi		Terraced		Flats	
	5 Bed	4 Bed	3 Bed	3 Bed	4 Bed	3 Bed	2 Bed	2 Bed	1 Bed
Ledbury, Ross	£400,000	£345,000	£315,000	£215,000	£252,000	£252,000	£216,000	£160,000	£120,000
Northern Rural	£385,000	£335,000	£300,000	£210,000	£246,000	£240,000	£210,000	£155,000	£115,000
Hereford	£345,000	£295,000	£270,000	£185,000	£240,000	£216,000	£186,000	£140,000	£105,000
Kington	£335,000	£290,000	£260,000	£180,000	£234,000	£210,000	£180,000	£135,000	£100,000
Hereford Hinterland	£330,000	£285,000	£255,000	£175,000	£228,000	£204,000	£174,000	£130,000	£95,000
Leominster	£280,000	£245,000	£220,000	£160,000	£198,000	£180,000	£156,000	£110,000	£85,000

LC noted that new build terraced properties shown an increase in value based on selling prices and asked for comment on this aspect. The responses to the house prices indicated that:

- Kington values are too high should be £135k-150k new build 2 bed terrace
- Hereford terraces were a bit high 2 bed should be £150k, 3 bed semi £180K and 3 bed terrace should be 5% lower
- Ledbury and Ross terrace prices are too high – there has not been much new build in these areas.
- Northern detached 5 bed should be £335k and 4 bed £320k.
- Ledbury and its rural hinterland have premium of 15-20% over Ross and its rural hinterland.
- 3 bed new build semi Leominster £130-£140,000 - but very few sales
- Surveyors are now down valuing properties. Flats are difficult to sell, country cottages no problem.

LC noted that there was limited available evidence on retirement housing prices (only Ross on Wye) and requested any other evidence be made available. None was identified at the workshop.

Development Costs

The development costs proposed for the viability testing were presented:

- Build costs £s per sq m
 - Houses £900
 - Flats £950 (mostly 1 and 2 storey)
 - Sheltered and extra care £1,030 (+ allowance for non revenue earning at c 20/35%)
- Other development costs
 - Professional Fees % 12% of build costs
 - Internal Overheads 5% of build costs
 - Finance 7% of build costs
 - Marketing Fees 3% of market value
 - Developers Return 17% of GDV
 - Contractors Return 6% of developments costs
- Other costs
Allow £795 per dwelling to achieve Building Regs 2013

Residual s106 costs – previous study used £5,000 per dwelling – feedback from workshop requested for appropriate rate for the new study

The discussion included:

- That build costs need to include abnormals, highways, local standards, SUDS
- Opening up costs on greenfield land are higher as services have to go further in agricultural areas. *Information about site opening up costs was requested by LC from participants. What amount per hectare is realistic and how does this relate to the scale of development?*
- That there were few developments of more than 50 dwellings
- That the developer return needs to be minimum 20% (note that the assumptions above include an allowance for internal overheads as well as a straight developer's return; which combine to just under 20%). LC suggested (and there was general agreement) that the testing should be based on a 20% developer return but nil internal overheads.
- Finance costs for small scale development are 6-6.5% plus arrangement fee (so using 7% may be acceptable)
- That the professional fees assumptions might be too low, although no examples were forthcoming.
- That site mitigation, play area, travel plan, drainage ranges between £500 to £3-4K per dwelling.
- The Shropshire CIL covers everything (e.g. play areas and maintenance all in CIL) apart from major transport and that this approach may be worth pursuing in Herefordshire. Alternatively s106 might be more flexible than just using CIL. This issue would need to be decided in due course by Herefordshire Council.

- The costs/dwelling of affordable houses at Code 4 is £1,150 (based on Housing Association payments to contractors).
- Recent tender rates reported to be @ £1850 per sqm – examples were requested.
- That the costs of the reports supporting planning applications should be included.
- That developers should be given incentives to achieve higher code levels.

Clarification was requested about what would be included within s106 post 2014.

Dwelling Mix and Size

LC explained that for the testing of the notional 1 hectare site, a notional scheme mix (for different development densities) needed to be identified and that standard dwelling sizes were proposed both for all testing to be undertaken. The information presented is as follows:.

Mix

Density (dph)	30 dph	40 dph	50 dph	60 dph
1 bed flat				10%
2 bed flat		5%	10%	25%
2 bed town house	10%	15%	20%	25%
3 bed town house	15%	25%	30%	30%
3 bed semi	25%	20%	30%	5%
3 bed detached	15%	10%	10%	5%
4 bed detached	25%	20%		
5 bed detached	10%	5%		
	100%	100%	100%	100%

Dwelling Sizes	Affordable sqm	Market sqm
1 Bed Flat	46	45
2 Bed Flat	67	60
2 Bed Terrace	76	65

Dwelling Sizes	Affordable sqm	Market sqm
3 Bed Terrace	84	80
3 Bed Semi	86	90
3 Bed Detached	90	110
4 Bed Detached	110	135
5 Bed Detached	125	150

Workshop comments were:

- That 50 and 60 dph are not being developed now – don't include in testing
- Terraces are being built but not town houses.
- That the market 4 bed house seemed a bit small – although no examples were provided at the workshop.
- Densities for rural areas are 20-30 dph.
- Densities for urban areas are 30-40 dph.

Affordable Housing

The affordable housing assumptions to be used in the testing were presented by LC who also noted that the council would undertake a short survey of RPs to provide opportunity for more detailed technical feedback. LC explained that revenue for rented housing would be assessed on the basis of a capitalised net rent, with no allowance for any other funding, including an assumption of nil grant.

- Mix of (social) rent and intermediate varies by area
- Intermediate – 80% of LHA or shared ownership (what % - 50% last report)

Bases on the LHMA 2011:

- Hereford HMA (35%) 64% social rent; 36% intermediate
- Bromyard HMA (25%) 100% intermediate
- Ledbury HMA (40%) 100% intermediate
- Ross HMA (40%) 14% social rented; 86% intermediate
- Kington HMA (35%) 30% social rent; 70% intermediate

- Leominster HMA (25%) 16% social rent; 84% intermediate
- Golden Valley HMA (35%) 43% social rent; 57% intermediate

Social and affordable rents

SR – based on target rents

AR – 80% LHA (using information for the Herefordshire BRMA)

Rents are presented in the table below:

Weekly rents	Social rent	Affordable rent
1 bed	£ 68	£ 73
2 bed	£ 78	£ 92
3 bed	£ 89	£ 110
4 bed	£ 100	£ 134
5 bed	£ 107	£ 134

Views were sought on the appropriate level of service charges for flats and houses.

Assumptions for other costs proposed were:

For SR (and AR)

- Management and maintenance £1000
- Voids/bad debts 3.00%
- Repairs reserve £500
- Capitalisation 6.00%

For shared ownership

- Share size 50%
- Rental charge 2.75%
- Capitalisation 6.00%

Case studies

LC explained that the team would identify a number of notional case study sites for testing. These are to be representative of the type of sites typical in the county.

Suggested case studies included:

- Up to 10 dwellings on the edge of villages with higher build costs of up to £1,000-£1,100 per sq m
- 5-20 dwellings in towns – may not have been allocated. No specific market.
- Sites of at least 1 ha at 35 dph minimum

The discussion noted the costs of ecology etc., and that at the moment there are a lot of schemes with planning permission not coming forward.

Close of workshops

Siobhan Riddle thanked everyone for attending the workshop and confirmed that a combined note of the two workshops would be circulated for further comment.

APPENDIX 3 - RESIDENTIAL DEVELOPMENT ASSUMPTIONS

Taken from the February 2013 Report and updated 09 April 2014

Market value areas

Market value areas and their relationship to Housing Market areas are set out in following table. Results are produced for each market value area. In a number of cases (e.g. Ledbury and Ross) there is more than one HMA within a single market value area. Viability testing has reflected this.

Market Value Area	Housing Market Areas	Benchmark (per ha)
Ledbury, Ross and Rural Hinterland	Ledbury, Ross	£800,000 to £1,000,000
Northern Rural	Leominster rural	£800,000 to £1,000,000
Hereford Northern & Southern Hinterlands	Hereford	£800,000 to £1,000,000
Kington and West Herefordshire	Kington, Golden Valley	£600,000
Hereford	Hereford	£600,000
Bromyard	Bromyard	£600,000
Leominster	Leominster town	£500,000

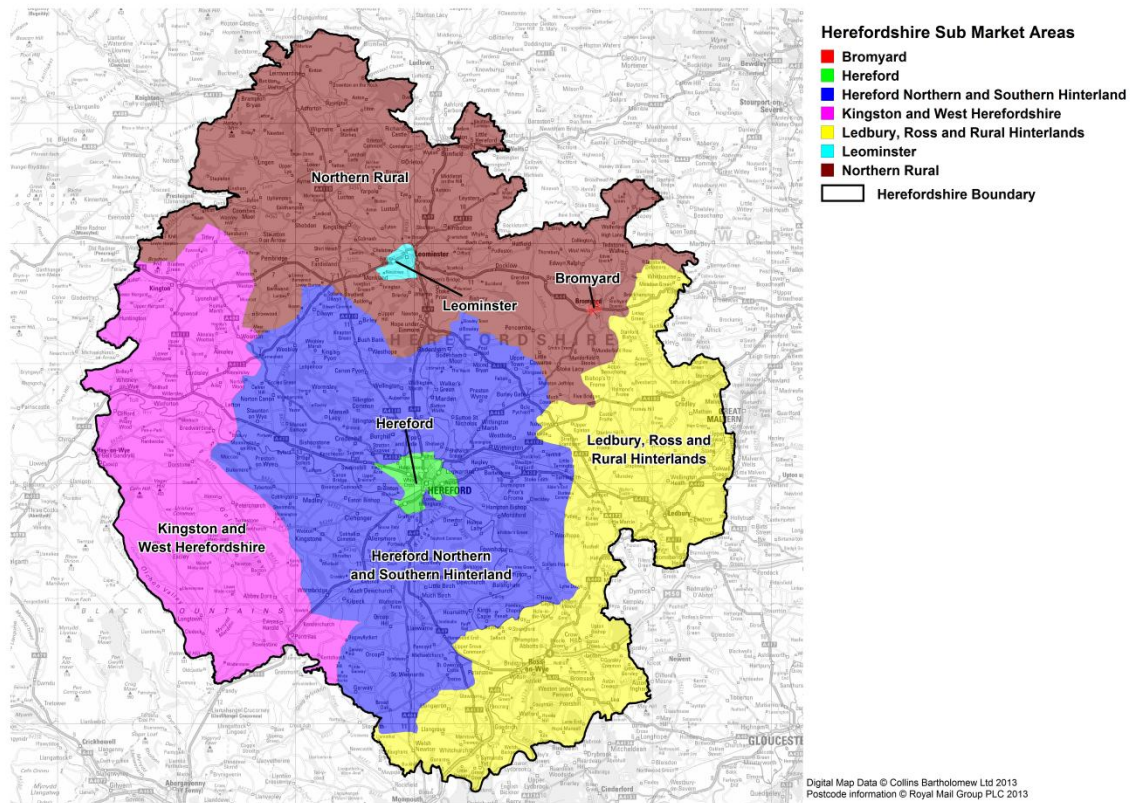


Figure 1 Map showing Hereford shire Sub Market Areas

Affordable housing

The table below sets out the percentage of affordable housing for each HMA.

Housing Market Area	% AH
Hereford and hinterlands	35%
Bromyard	40%
Ledbury	40%
Ross and rural hinterlands	40%
Kington	35%
Leominster rural	40%
Leominster town	25%
Golden Valley	35%

The standard tenure make up for affordable housing is 47% intermediate affordable housing and 53% social rent for all locations except Bromyard where we have modelled 76% intermediate affordable housing and 24% social rent. 'Intermediate affordable housing' has been assessed as shared ownership (see later for assumptions related to shared ownership.)

Mixes (for notional 1 hectare scheme)

For Market units

	25dph	30 dph	40 dph	50 dph
House type	%s	%s	%s	%s
1 bed flat				5%
2 bed flat			5%	10%
2 bed terrace house		10%	15%	25%
3 bed terrace house		15%	30%	30%
4 bed terrace house	10%			
3 bed semi-det house	25%	25%	20%	25%
3 bed detached house	15%	15%	10%	5%
4 bed detached house	40%	25%	20%	
5 bed detached house	10%	10%		

These are based on information shown at development industry workshop, updated with information about recent planning permissions in Herefordshire.

30 dph and 40 dph has been tested in all market value areas

50 dph scheme has been tested in Hereford only

25 dph scheme has been tested in all market value areas except Hereford and Leominster

Dwelling types for affordable housing to vary with tenure (as advised by the Council):

For social rent -

1 bed flat 30%

2 bed terr 40%

3 bed Semi 25%

4 bed Semi 5%

For shared ownership

2 bed terr 50%

3 bed terr 50%

Dwelling sizes (in sq m GIA)

House type description	Affordable	Market
1 Bed Flat	45	45
2 Bed Flat	67	60
2 Bed Terrace	75	65
3 Bed Terrace	82	80
4 bed terrace/ semi	100	95
3 Bed Semi	85	90
3 Bed Detached	85	110
4 Bed Detached	100	135
5 Bed Detached	125	150

It is assumed all flats are 2 storey and an additional 10% has been added to the floor areas to allow for circulation space and communal areas, also enabling CIL to be calculated correctly.

Development costs

Build costs

Build costs have been calculated using BCIS 5 year median values, applying the location factor for Herefordshire, with a 15% uplift to allow for external works.

Houses £950/ sq m

Flats £1,040/ sq m (assume 1 and 2 storey)

Additional build costs per dwelling

£1,000 per dwelling

Code Level 5 for water based on report from Neil Cutland (see Appendix 8 of this document)

Other development costs

- Professional Fees % 12% of build costs
- Finance 7% of build costs
- Marketing Fees 3% of market value
- Developers Return 20% of GDV
- Contractors Return 6% of development costs
- Agents Fees 1.0%
- Legal Fees 0.75%
- SDLT Deducted at appropriate rate

The results of the large case studies have been evaluated using the Net Present Value/ Discounted Cash Flow functionality of the Three Dragons Toolkit. The interest rate assumptions used in the discounted cash flow are as follows:-

- Debit interest rate 7%
- Credit interest rate 2%
- Annual Discount rate 3.5%

Residual s106 costs

A standard figure of £2,000 per dwelling (market and affordable), provided by Herefordshire Council has been applied to the 1ha notional sites, and all case studies.

Affordable housing assumptions

For rental properties.

- Management and maintenance £900
- Voids/bad debts 3.00%
- Repairs reserve £500
- Capitalisation 6.00%

For shared ownership

- Share size 40%
- Rental charge 2.75%
- Capitalisation 6.00%

Weekly rents

House type	Social Rent
1 bed flat	£72.00
2 bed flat	£93.00

House type	Social Rent
2 bed house	£93.00
3 bed house	£100.00
4 bed house	£106.00

Market values areas and values

See table below.

HOUSE PRICES Q1 2014

	Detached			Semi-detached		Terrace			Flats	
	5 Bed	4 Bed	3 Bed	4 Bed	3 Bed	4 Bed	3 Bed	2 Bed	2 Bed	1 Bed
Ledbury, Ross and Rural Hinterlands	£415,000	£355,000	£315,000	£230,000	£210,000	£215,000	£200,000	£175,000	£155,000	£110,000
Northern Rural	£345,000	£330,000	£310,000	£235,000	£215,000	£210,000	£205,000	£180,000	£160,000	£115,000
Hereford	£355,000	£305,000	£250,000	£210,000	£190,000	£215,000	£185,000	£150,000	£145,000	£110,000
Kington and West Herefordshire	£345,000	£300,000	£270,000	£205,000	£185,000	£200,000	£180,000	£150,000	£140,000	£100,000
Hereford Hinterland	£340,000	£295,000	£265,000	£200,000	£180,000	£195,000	£175,000	£150,000	£135,000	£95,000
Leominster	£290,000	£250,000	£225,000	£185,000	£160,000	£170,000	£155,000	£135,000	£110,000	£85,000
Bromyard	£280,000	£260,000	£220,000	£210,000	£185,000	£195,000	£170,000	£145,000	£115,000	£90,000

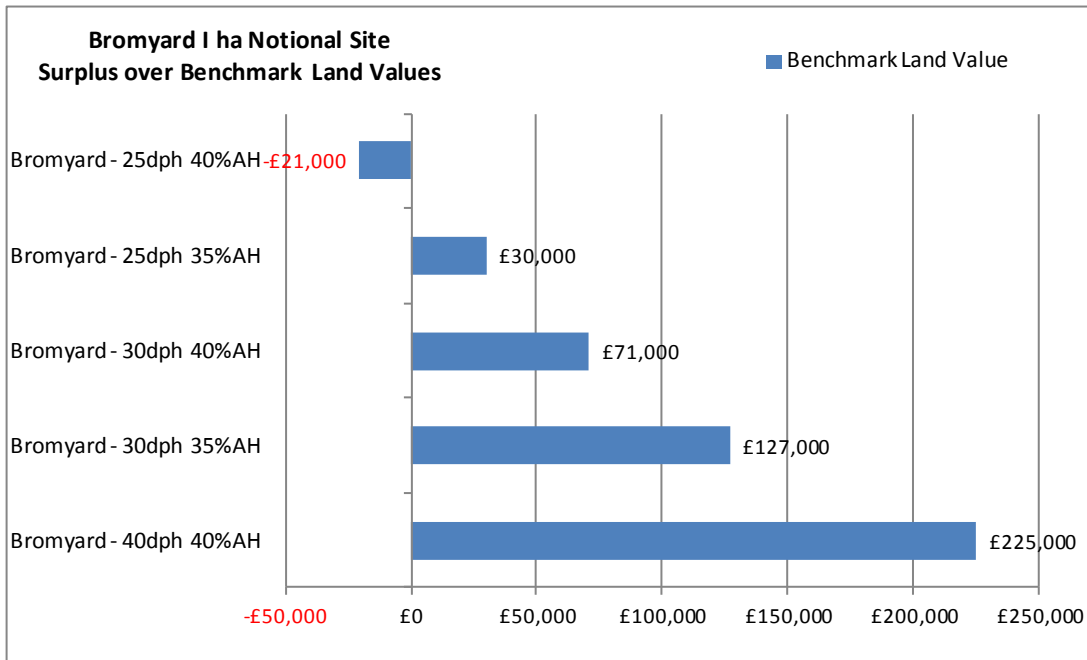
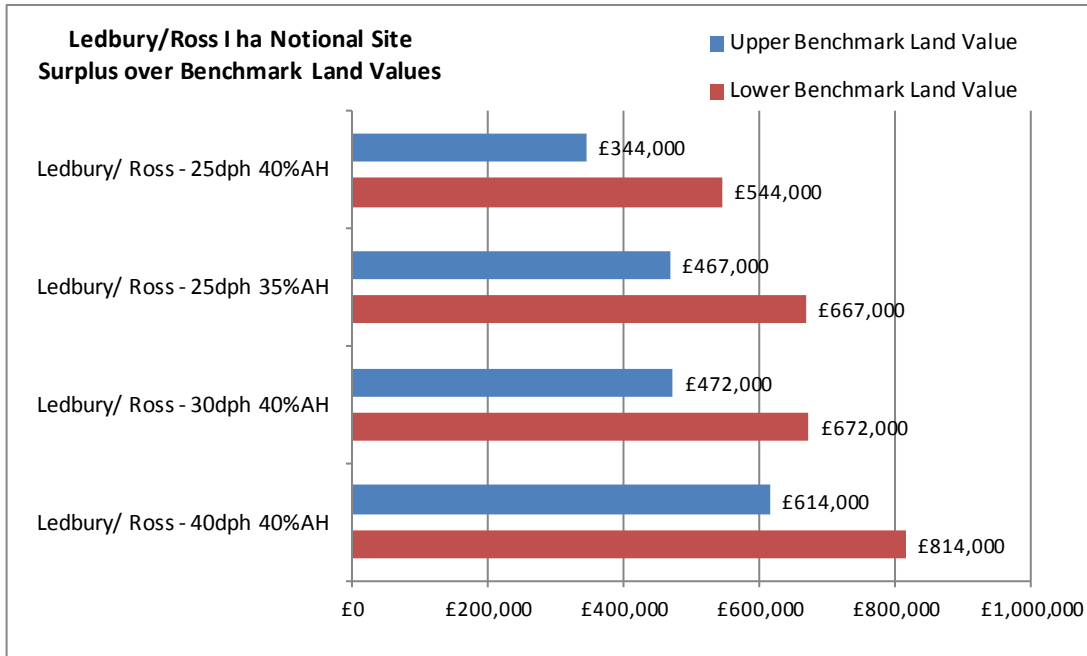
Note: house prices are rounded down to nearest £5K except for 1 bed flats in Hereford at £109K which have been rounded up to £110K

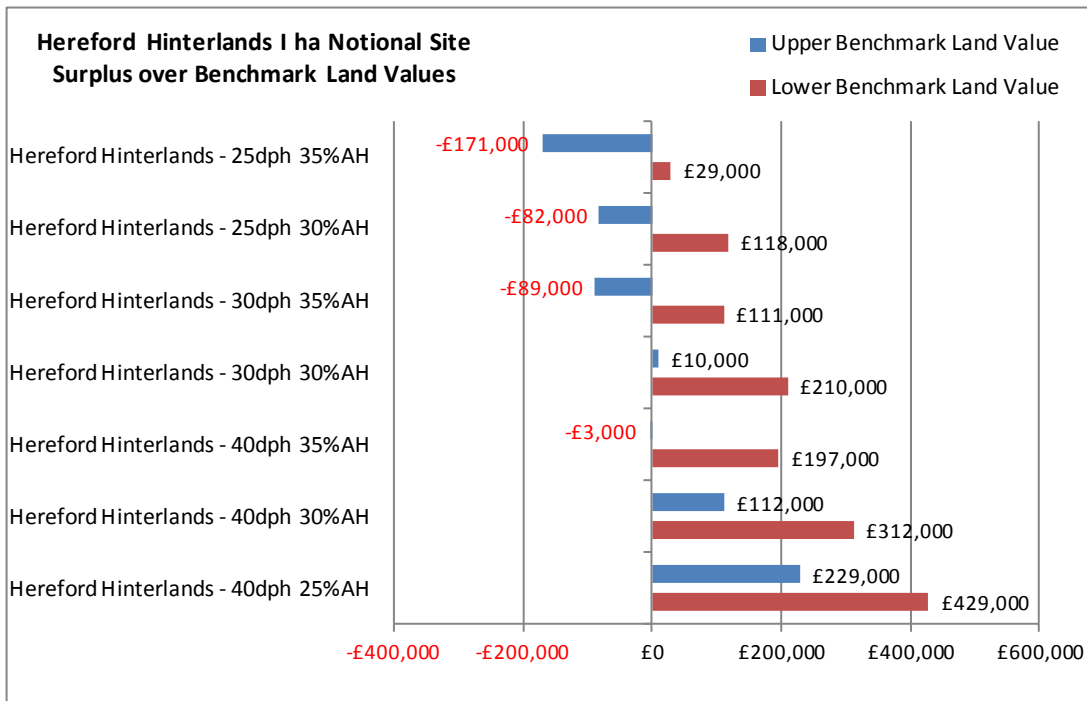
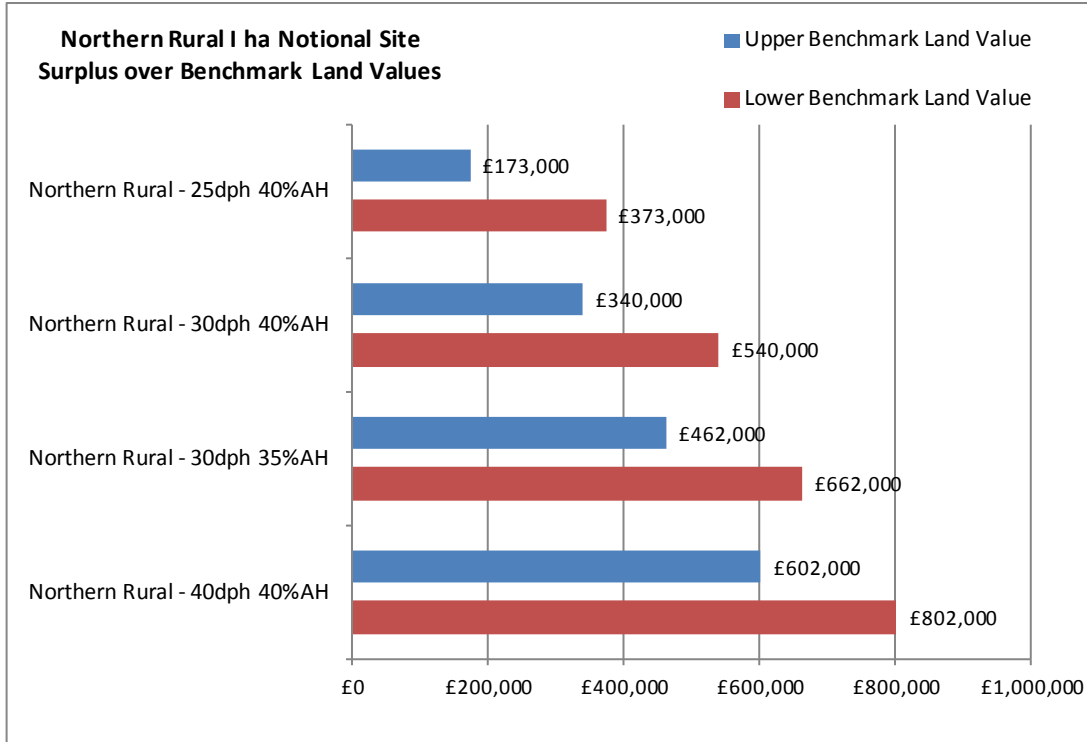
APPENDIX 4 – RESIDENTIAL TESTING – 1 HA SCHEME RESULTS

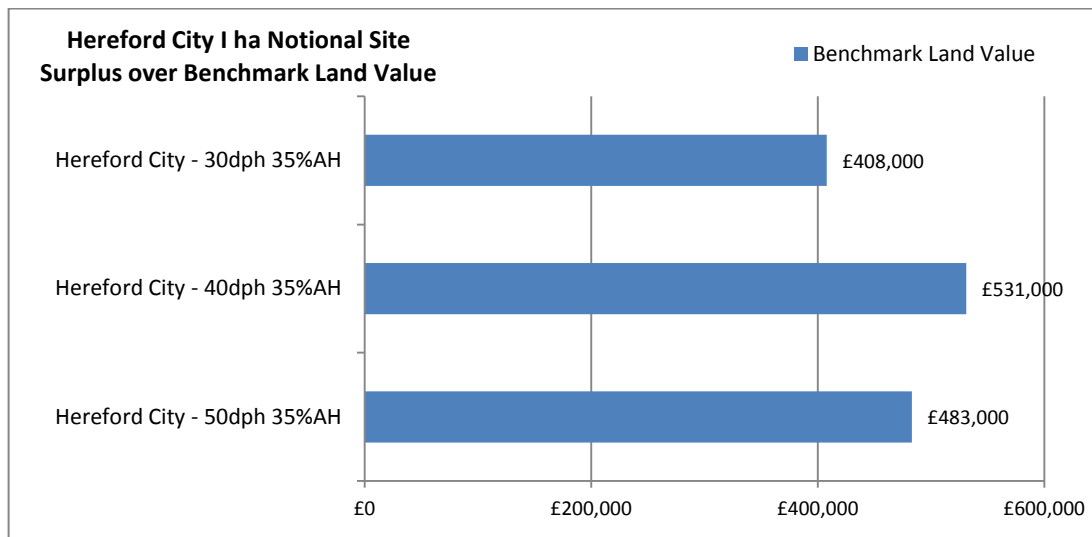
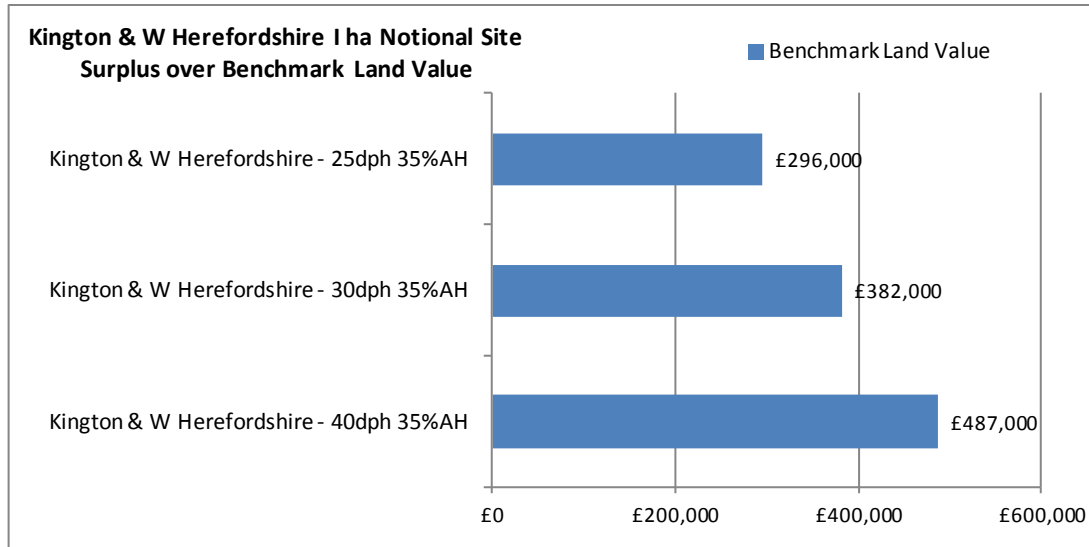
1 ha Notional Site Testing Results					RESULTS				
AREA/ LOCATION					RESULTS				
					Benchmark values				
%AH					Residual Value	Upper Benchmark	Lower Benchmark	RV less Upper Benchmark	RV less Lower Benchmark
Housing Market Area	DPH	Market Value Area	Market %	Affordable %					
Ledbury/ Ross	25	L,R & RH	60%	40%	1,344,000	1,000,000	800,000	£344,000	£544,000
Ledbury/ Ross	25	L,R & RH	65%	35%	1,467,000	1,000,000	800,000	£467,000	£667,000
Ledbury/ Ross	30	L,R & RH	60%	40%	1,472,000	1,000,000	800,000	£472,000	£672,000
Ledbury/ Ross	40	L,R & RH	60%	40%	1,614,000	1,000,000	800,000	£614,000	£814,000
Bromyard	25	Bromyard	60%	40%	579,000	600,000	600,000	-£21,000	-£21,000
Bromyard	25	Bromyard	65%	35%	630,000	600,000	600,000	£30,000	£30,000
Bromyard	30	Bromyard	60%	40%	671,000	600,000	600,000	£71,000	£71,000
Bromyard	30	Bromyard	65%	35%	727,000	600,000	600,000	£127,000	£127,000
Bromyard	40	Bromyard	60%	40%	825,000	600,000	600,000	£225,000	£225,000
Northern Rural	25	NR	60%	40%	1,173,000	1,000,000	800,000	£173,000	£373,000
Northern Rural	30	NR	60%	40%	1,340,000	1,000,000	800,000	£340,000	£540,000
Northern Rural	30	NR	65%	35%	1,462,000	1,000,000	800,000	£462,000	£662,000
Northern Rural	40	NR	60%	40%	1,602,000	1,000,000	800,000	£602,000	£802,000
Hereford Hinterlands	25	HN & SH	65%	35%	829,000	1,000,000	800,000	-£171,000	£29,000
Hereford Hinterlands	25	NR	70%	30%	918,000	1,000,000	800,000	-£82,000	£118,000
Hereford Hinterlands	30	HN & SH	65%	35%	911,000	1,000,000	800,000	-£89,000	£111,000
Hereford Hinterlands	30	HN & SH	70%	30%	1,010,000	1,000,000	800,000	£10,000	£210,000
Hereford Hinterlands	40	HN & SH	65%	35%	997,000	1,000,000	800,000	-£3,000	£197,000
Hereford Hinterlands	40	HN & SH	70%	30%	1,112,000	1,000,000	800,000	£112,000	£312,000
Hereford Hinterlands	40	HN & SH	75%	25%	1,229,000	1,000,000	800,000	£229,000	£429,000
Kington & W Herefordshire	25	K & WH	65%	35%	896,000	600,000	600,000	£296,000	£296,000
Kington & W Herefordshire	30	K & WH	65%	35%	982,000	600,000	600,000	£382,000	£382,000
Kington & W Herefordshire	40	K & WH	65%	35%	1,087,000	600,000	600,000	£487,000	£487,000
Hereford City	30	Hereford	65%	35%	1,008,000	600,000	600,000	£408,000	£408,000
Hereford City	40	Hereford	65%	35%	1,131,000	600,000	600,000	£531,000	£531,000
Hereford City	50	Hereford	65%	35%	1,083,000	600,000	600,000	£483,000	£483,000
Leominster	30	Leominster	75%	25%	633,000	500,000	500,000	£133,000	£133,000
Leominster	40	Leominster	75%	25%	599,000	500,000	500,000	£99,000	£99,000
Leominster	40	Leominster	80%	20%	687,000	500,000	500,000	£187,000	£187,000
Leominster	40	Leominster	85%	15%	775,000	500,000	500,000	£275,000	£275,000

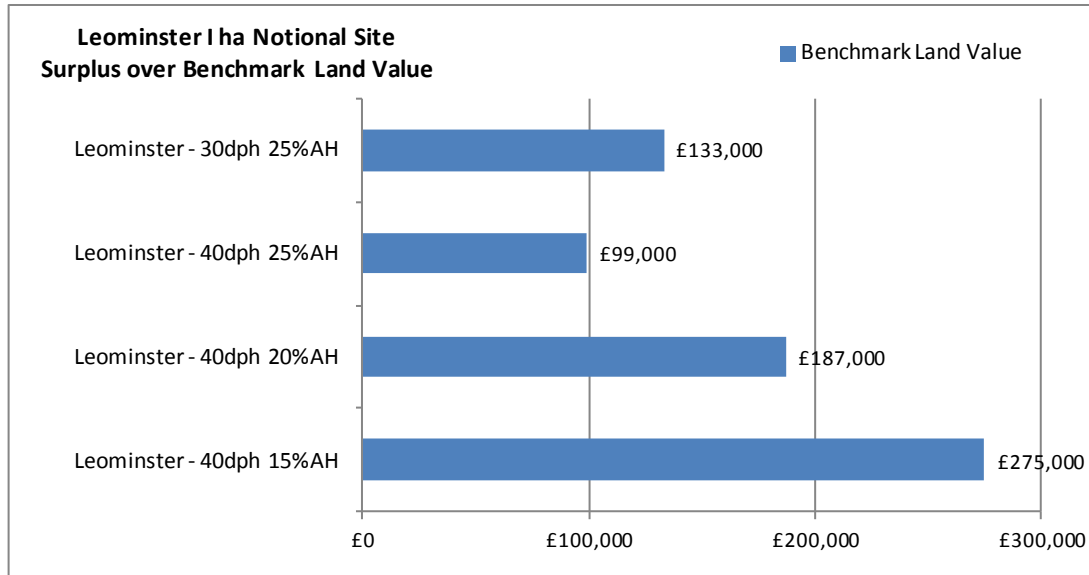
Figure 2 1ha Notional Site Testing Results

Charts showing Surplus Over Benchmark Land Values for all Housing Market Areas









APPENDIX 5 – RESIDENTIAL CASE STUDY DETAILS

Small Case Studies

Case study	Location (Housing Market Area)	Market value area	%AH tested	Total Dwgs	Density	Site Size ha (net)	Gross to net	Market element of scheme										Social rent				SO						
								1 b flat	2 b flat	2 b terr	3 b terr	4 b terr	3 b semi	4 b semi	3 b det	4 b det	5 b det	1 b flat	2 b terr	3 b semi	4 b semi	2 b terr	3 b terr					
1a	Ledbury/ Ross	Ledbury Ross and rural Hinterland	0% & 40%	1	25	0.04	100%													1.0								
1b	Bromyard	Bromyard	0%	1	25	0.04	100%													1.0								
1b	Northern Rural	Northern Rural	0% & 40%	1	25	0.04	100%													1.0								
1c	Hereford Hinterland	Hereford Northern and Southern Hinterlands	0% & 35%	1	25	0.04	100%													1.0								
1d	Kington & W Herefordshire	Kington and West Herefordshire	0% & 35%	1	25	0.04	100%													1.0								
1e	Hereford City	Hereford	0%	1	25	0.04	100%													1.0								
1f	Leominster	Leominster	0%	1	25	0.04	100%													1.0								
2	Kington and W Herefordshire	Kington and West Herefordshire	0% & 35%	4	25	0.16	100%									2.6							0.7			0.7		
3	Ledbury / Ross	Ledbury Ross and rural Hinterland	0% & 40%	5	30	0.17	100%													3.0			1.1			0.9		
4a	Bromyard	Bromyard	0% & 40%	5	30	0.17	100%													3.0			0.5			1.5		
4b	Northern Rural	Northern Rural	0% & 40%	5	30	0.17	100%													3.0			1.1			0.9		
5	Leominster	Leominster	0%	8	40	0.20	100%				6.0												1.1			0.9		
6	Hereford City	Hereford	0%	10	50	0.20	100%				3.3	3.3											1.9			1.6		
7	Ledbury/ Ross	Ledbury Ross and rural Hinterland	40%	20	35	0.57	100%						2.0		2.0					8.0			2.4	1.5	0.3	1.9	1.9	
8	Hereford City	Hereford	35%	30	30	1.00	100%								4.0					15.5			1.7	2.2	1.4	0.3	2.5	2.5

Figure 3 Small Case Study Details

Large Case Studies

Case study	Location (Housing Market Area)	Market value area	%AH tested	Total Dwgs	dph	Site Size ha (net)	Gross to net	Market element of scheme										Social rent				SO		Demolition /De-contaminati on Costs	Dev't Rate and Period				
								1 b flat	2 b flat	2 b terr	3 b terr	4 b terr	3 b semi	4 b semi	3 b det	4 b det	5 b det	1 b flat	2 b terr	3 b semi	4 b semi	2 b terr	3 b terr			Opening up costs per net ha			
9	Hereford HD2	Hereford	35%	800	50	16.00	73%	26.0	52.0	130.0	156.0				130.0			26.0			44.5	59.4	37.1	7.4	65.8	65.8		£3,520,000	100pa 9 years
10	Hereford HD4	Hereford	35%	500	35	14.29	75%		16.3	32.5	65.0				81.3			48.8	65.0	16.3	27.8	37.1	23.2	4.6	41.1	41.1	£200,000		100pa 6 years
11	Hereford HD5	Hereford	35%	1,000	35	28.57	70%		32.5	65.0	130.0				162.5			97.5	130.0	32.5	55.7	74.2	46.4	9.3	82.3	82.3	£200,000		100pa 11 years
12	Hereford HD6	Hereford	35%	1,000	35	28.57	70%		32.5	65.0	130.0				162.5			97.5	130.0	32.5	55.7	74.2	46.4	9.3	82.3	82.3	£200,000		100pa 11 years
13	Bromyard BY2	Bromyard	40%	250	35	7.14	80%		7.5	15.0	30.0				37.5			22.5	30.0	7.5	7.2	9.6	6.0	1.2	38.0	38.0	£100,000		50pa 6 years
14	Ledbury LB2	Ledbury Ross and rural Hinterland	40%	625	40	15.63	74%		18.8	56.3	112.5				75.0			37.5	75.0		39.8	53.0	33.1	6.6	58.8	58.8	£200,000		100pa 7 years
15	Leominster LO2	Leominster	25%	1,500	35	42.85	70%		45.0	90.0	180.0				225.0			135.0	180.0	45.0	95.4	127.2	79.5	15.9	141.0	141.0	£200,000		120pa 14 years
16	Ross on Wye RW2	Ledbury Ross and rural Hinterland	40%	200	35	5.71	80%		6.0	12.0	24.0				30.0			18.0	24.0	6.0	12.7	17.0	10.6	2.1	18.8	18.8	£100,000		100pa 3 years

Figure 4 Large Case Study Details

APPENDIX 6 – RESIDENTIAL CASE STUDY RESULTS

Small Case Study Results

Small Case Study Results														
AREA/ LOCATION								Benchmark values		Results				
Housing Market Area	Market Value Area	No of dwgs	Net area ha	Gross area ha	Net to gross %	Market %	Affordable %	Upper Benchmark	Lower Benchmark	Residual Value (RV) per gross ha	RV less Upper Benchmark per dwelling	RV less Upper Benchmark per market dwelling	RV less Lower Benchmark per dwelling	RV less Lower Benchmark per market dwelling
CS1a Ledbury/Ross	L, R & RH	1	0.04	0.04	100%	100%	0%	1,000,000	800,000	3,150,000	86,000	86,000	94,000	94,000
CS1a Ledbury/Ross	L, R & RH	1	0.04	0.04	100%	60%	40%	1,000,000	800,000	1,925,000	37,000	61,600	45,000	75,000
CS1b Bromyard	Bromyard	1	0.04	0.04	100%	100%	0%	600,000	600,000	650,000	2,000	2,000	2,000	2,000
CS1b Northern Rural	NR	1	0.04	0.04	100%	100%	0%	1,000,000	800,000	1,875,000	35,000	35,000	43,000	43,000
CS1b Northern Rural	NR	1	0.04	0.04	100%	60%	40%	1,000,000	800,000	900,000	-4,000	-6,600	4,000	6,600
CS1c Hereford Hinterland	HNSH	1	0.04	0.04	100%	100%	0%	1,000,000	800,000	1,775,000	31,000	31,000	39,000	39,000
CS1c Hereford Hinterland	HNSH	1	0.04	0.04	100%	60%	35%	1,000,000	800,000	950,000	-2,000	-3,300	6,000	10,000
CS1d Kington & W Herefordshire	K & WH	1	0.04	0.04	100%	100%	0%	600,000	600,000	1,875,000	51,000	51,000	51,000	51,000
CS1d Kington & W Herefordshire	K & WH	1	0.04	0.04	100%	60%	35%	600,000	600,000	1,000,000	16,000	26,600	16,000	26,600
CS1e Hereford City	Hereford	1	0.04	0.04	100%	100%	0%	600,000	600,000	2,075,000	59,000	59,000	59,000	59,000
CS1f Leominster Town	Leominster	1	0.04	0.04	100%	100%	0%	500,000	500,000	825,000	13,000	13,000	13,000	13,000
CS2 Kington & W Herefordshire	K & WH	4	0.16	0.16	100%	100%	0%	600,000	600,000	1,587,500	39,500	39,500	39,500	39,500
CS2 Kington & W Herefordshire	K & WH	4	0.16	0.16	100%	65%	35%	600,000	600,000	1,162,500	22,500	34,600	22,500	34,600
CS3 Ledbury/Ross	LR & RH	5	0.17	0.17	100%	100%	0%	1,000,000	800,000	2,641,100	55,700	55,700	62,500	62,500
CS3 Ledbury/Ross	LR & RH	5	0.17	0.17	100%	60%	40%	1,000,000	800,000	1,905,800	30,700	51,300	37,500	62,600
CS4a Bromyard	Bromyard	5	0.17	0.17	100%	100%	0%	600,000	600,000	1,194,100	20,100	20,100	20,100	20,100
CS4b Northern Rural	NR	5	0.17	0.17	100%	100%	0%	1,000,000	800,000	2,358,800	46,100	46,100	52,900	52,900
CS4b Northern Rural	NR	5	0.17	0.17	100%	60%	40%	1,000,000	800,000	1,600,000	20,400	34,000	27,200	45,300
CS5 Leominster	Leominster	8	0.20	0.20	100%	100%	0%	500,000	500,000	825,000	8,100	8,100	8,100	8,100
CS6 Hereford City	Hereford	10	0.20	0.20	100%	100%	0%	600,000	600,000	2,090,000	29,800	29,800	29,800	29,800
CS7 Ledbury/ Ross	LR & RH	20	0.57	0.57	100%	60%	40%	1,000,000	800,000	1,850,800	24,200	40,400	29,900	49,900
CS8 Hereford City	Hereford	30	1.00	1.00	100%	65%	35%	600,000	600,000	1,196,000	19,800	30,500	19,800	30,500

Figure 5 Small Case Study Results

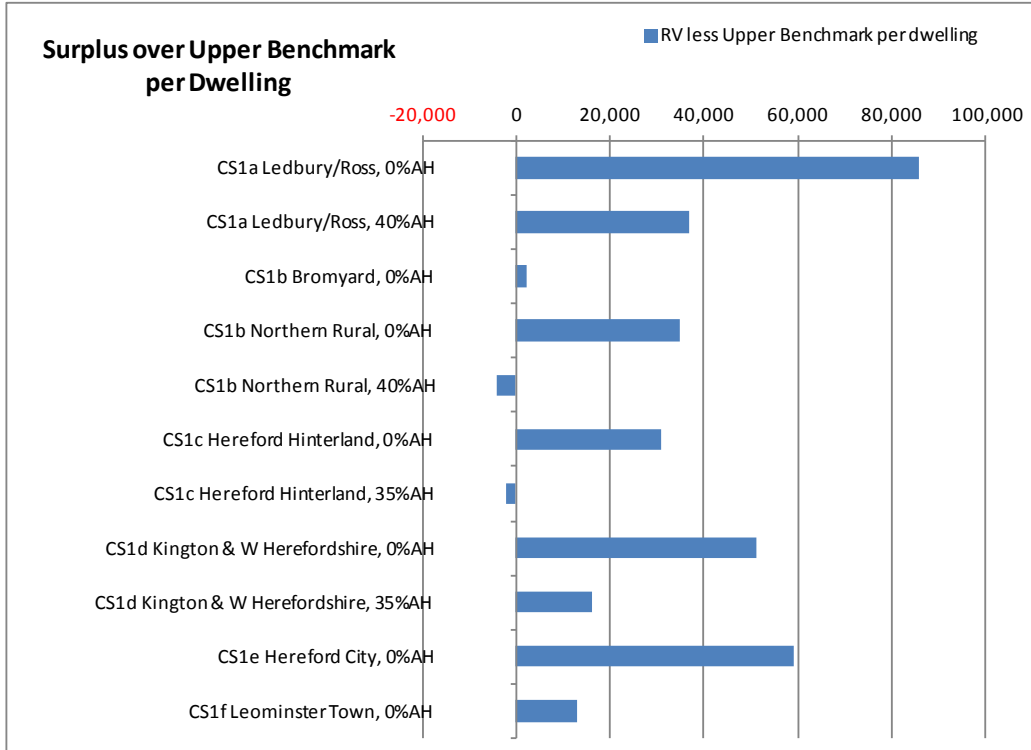


Figure 6 Case Study 1 Excess Residual Value per dwelling

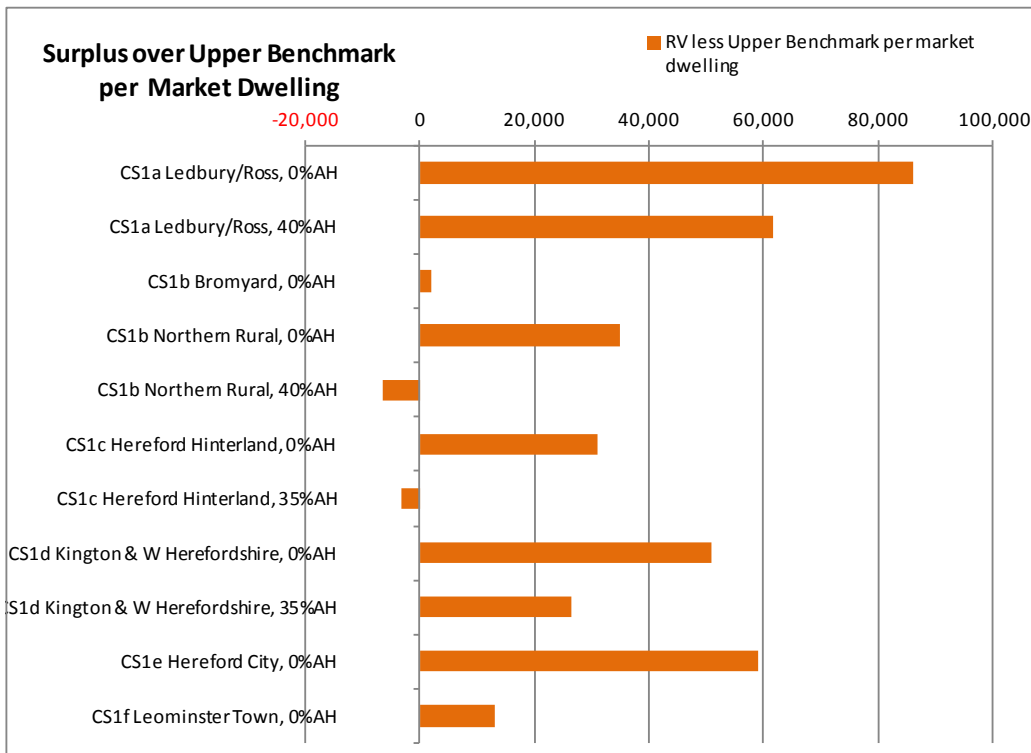


Figure 7 Case Study 1 Excess Residual Value per Market Dwelling

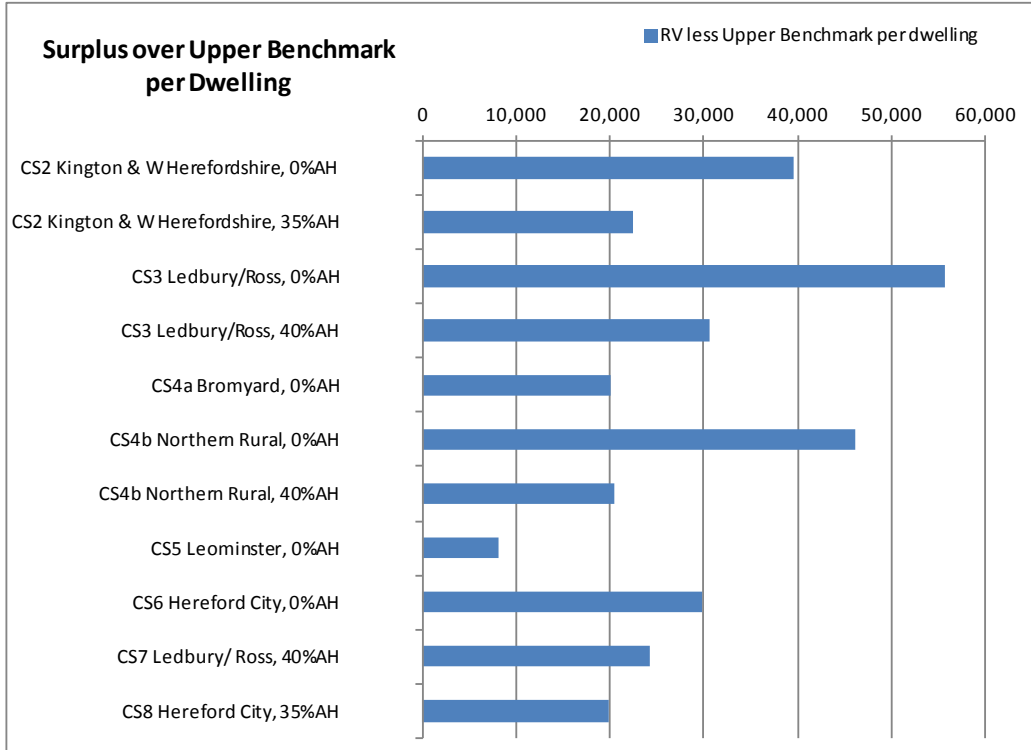


Figure 8 Case Studies 2 - 8 Excess Residual Value per Dwelling

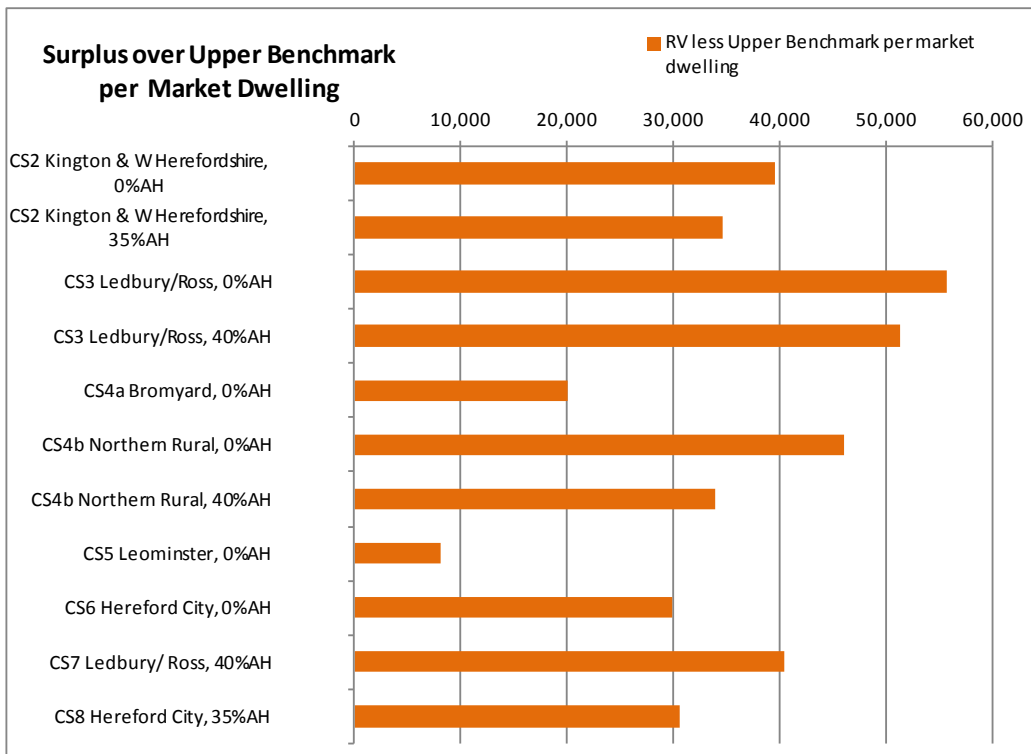


Figure 9 Case Studies 2 - 8 Excess Residual Value per Market Dwelling

Large Case Study Results

Large Case study Results															
Case Study details									%AH						
Case Study	DPH	Market Value Area	No of dwellings	Net area ha	Gross area ha	Net to gross %	Market %	Affordable %	Benchmark (per gross ha)	Total Scheme Excess Residual Value (£m)	Residual Value (per gross ha)	Excess RV less Benchmark/gross ha	Excess RV less Benchmark/dwelling	Excess RV less Benchmark/mkt dwg	
CS 9 - Hereford HD2	50	Hereford	800	16.00	18.00	89%	65%	35%	£600,000	£3.559	£797,700	£197,700	£3,954	£6,083	
CS10 - Hereford HD4	35	Hereford	500	14.29	19.05	75%	65%	35%	£300,000	£6.649	£649,000	£349,000	£9,974	£15,345	
CS11/12 - Hereford HD5/HD6	35	Hereford	1,000	28.57	40.81	70%	65%	35%	£300,000	£11.583	£583,800	£283,800	£8,108	£12,474	
CS13 - Bromyard BY2	35	Bromyard	250	7.14	8.93	80%	60%	40%	£300,000	£2.579	£588,800	£288,800	£8,248	£13,747	
CS14 - Ledbury LB2	40	L, R & RH	625	15.63	21.12	74%	60%	40%	£300,000	£15.499	£1,033,900	£733,900	£18,353	£30,589	
CS15a - Leominster LO2	35	Leominster	1,500	42.85	61.21	70%	75%	25%	£250,000	£2.445	£289,900	£39,900	£1,140	£1,520	
CS15b - Leominster LO2 (+10% SPs)	35	Leominster +10%	1,500	42.85	61.21	70%	75%	25%	£250,000	£15.754	£507,400	£257,400	£7,353	£9,804	
CS16 - Ross RW2	35	L, R & RH	200	5.71	7.14	80%	60%	40%	£300,000	£6.548	£1,217,100	£917,100	£26,183	£43,639	

Figure 10 Large Case Study Results

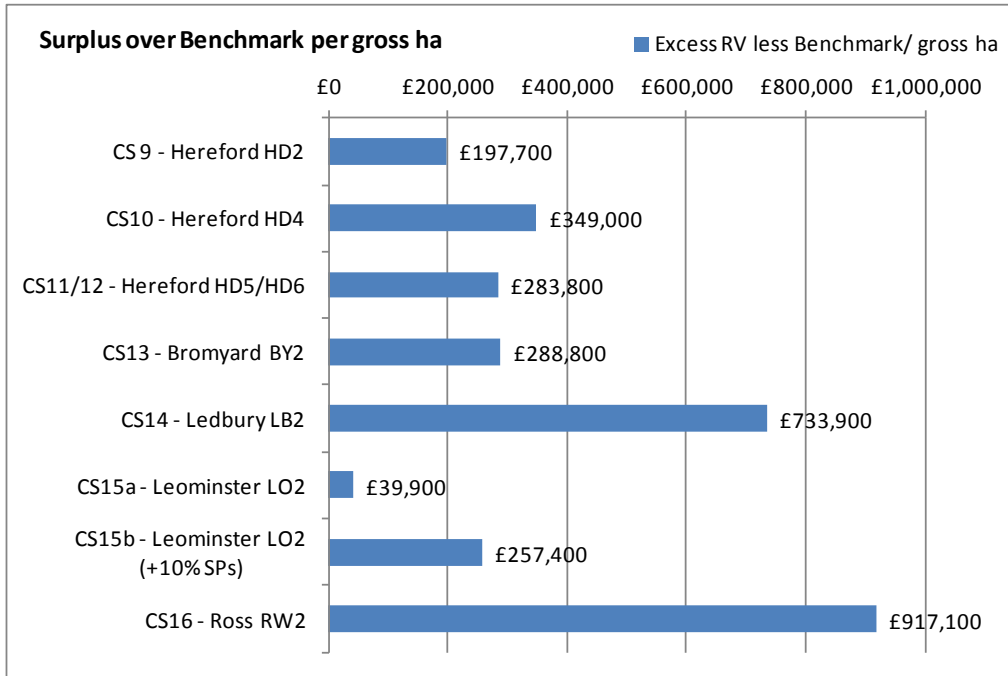


Figure 11 Large Case Study Excess Residual Value per Gross Ha

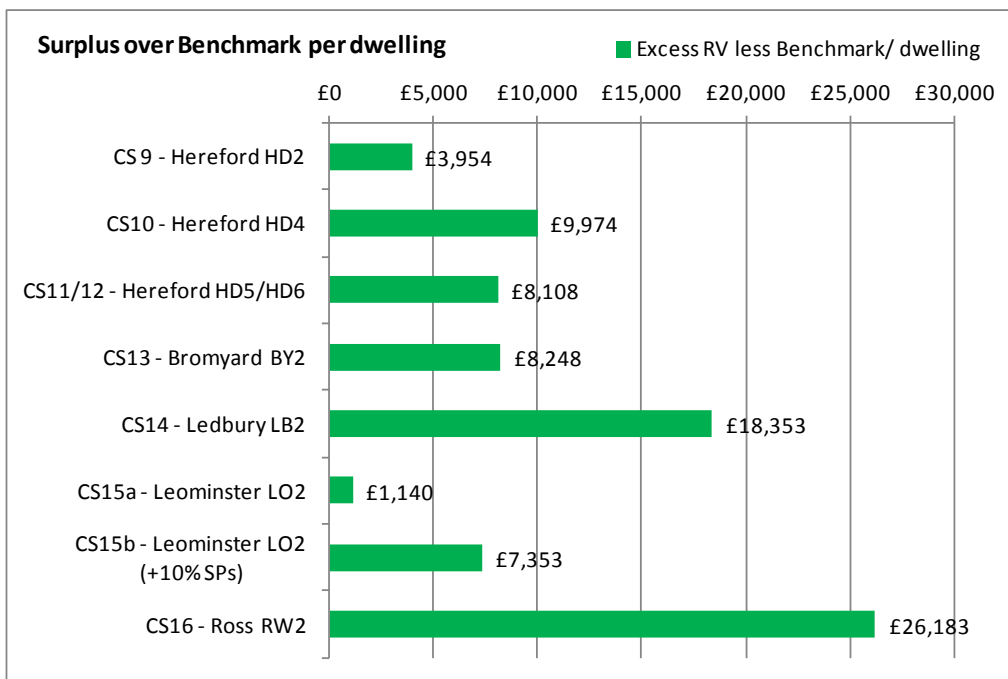


Figure 12 Large Case Studies Excess Residual Value per Dwelling

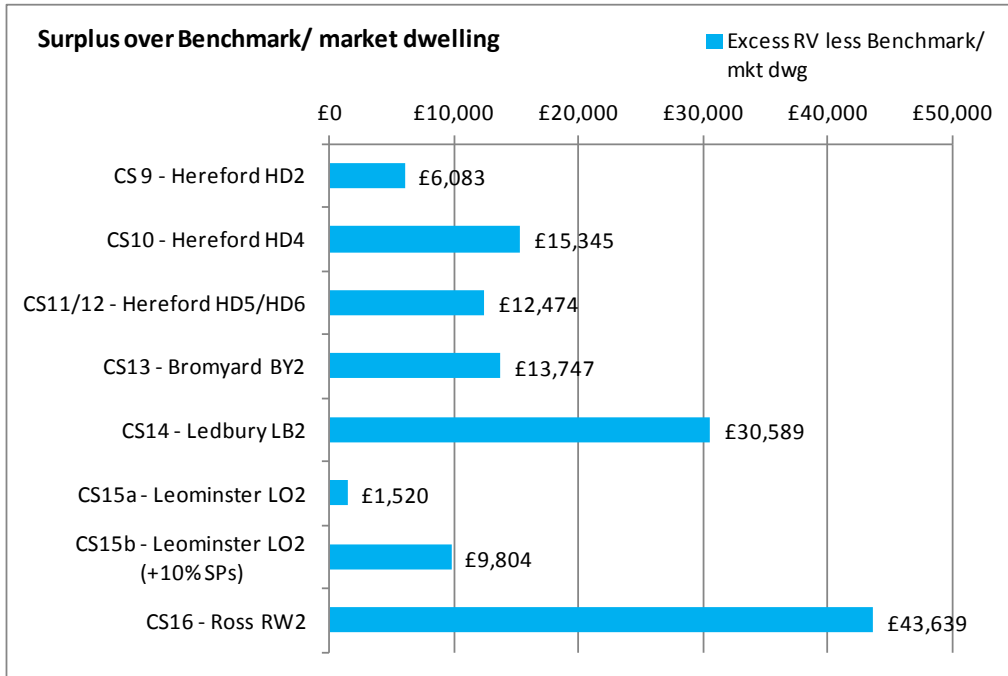


Figure 13 Large Case Studies Excess Residual Value per Market Dwelling

APPENDIX 7 – NON-RESIDENTIAL MODEL OUTPUTS

Non-residential Viability Assessment Model					
Office development of two storeys out of town (a/c multiple units)					
	Size of unit (GIA)	1500 sq m			
	Ratio of GEA to GIA	100.0%			User input cells
	GEA	1500 sq m			Produced by model
	NIA as % of GIA	95%			Key results
	NIA	1425 sq m		GEA	Gross external area
	Floors	2		GIA	Gross internal area
	Site coverage	40%		NIA	Net internal area
	Site area	0.19 Hectares			
SCHEME REVENUE					
	Headline annual rent (in £s per sq m)			£97	
	Annual rent for assesment (total) - NIA			£ 138,225	
	Yield			6.50%	
	(Yield times rent)			£ 2,126,538	
	Less purchaser costs	5.80 % of yield x rent			
	Gross Development Value			£ 2,009,961	
SCHEME COSTS					
	Build costs	£ 1,040 per sq m		£ 1,560,000	
	Allowance for higher environmental standards	£ 20 per sq m		£ 30,000	
	External costs	10% of base build costs		£ 156,000	
	Total construction costs			£ 1,746,000	
	Professional fees	12.00% of construction costs		£ 209,520	
	Sales and lettings costs	3% of GDV		£ 60,299	
	S106/278 costs (not covered by CIL)			£ -	
	Total 'other costs'			£ 269,819	
	Finance costs	6.5% Interest rate			
	Build period	10 Months			
	Finance costs for 100% of construction and other costs			£ 109,190	
	Void finance period (in months)	3 Months		£ 27,298	
	Total finance costs			£ 136,488	
	Developer return	20% Scheme value		£ 401,992	
	Total scheme costs			£ 2,554,299	
RESIDUAL VALUE					
	Gross residual value			-£ 544,338	
	Less purchaser costs	0.00 % Stamp duty land tax		£ -	
		2.00 % Agent/legal purchase fees		£ -	
	Residual value	For the scheme		-£ 555,225	
		Equivalent per hectare		-£ 2,961,199	
		Not viable			
Comparison with Benchmark Land Value					
	Benchmark land value (per hectare)			£ 432,419	
	Equivalent benchmark land value for site			£ 81,079	
	Viability 'headroom' for the scheme			-£ 636,303	

Non-residential Viability Assessment Model				
Office development of four storeys town centre (a/c)				
	Size of unit (GIA)	2000 sq m		
	Ratio of GEA to GIA	100.0%		
	GEA	2000 sq m		User input cells
	NIA as % of GIA	95%		Produced by model
	NIA	1900 sq m		Key results
	Floors	4	GEA	Gross external area
	Site coverage	75%	GIA	Gross internal area
	Site area	0.07 Hectares	NIA	Net internal area
SCHEME REVENUE				
	Headline annual rent (in £s per sq m)		£107	
	Annual rent for assesment (total) - NIA		£ 203,300	
	Yield		7.00%	
	(Yield times rent)		£ 2,904,286	
	Less purchaser costs	5.80 % of yield x rent		
	Gross Development Value		£ 2,745,072	
SCHEME COSTS				
	Build costs	£ 1,286 per sq m	£ 2,572,000	
	Allowance for higher environmental standards	£ 20 per sq m	£ 40,000	
	External costs	10% of base build costs	£ 257,200	
	Total construction costs		£ 2,869,200	
	Professional fees	12.00% of construction costs	£ 344,304	
	Sales and lettings costs	3% of GDV	£ 82,352	
	S106/278 costs (not covered by CIL)		£ -	
	Total 'other costs'		£ 426,656	
	Finance costs	6.5% Interest rate		
	Build period	14 Months		
	Finance costs for 100% of construction and other costs		£ 249,936	
	Void finance period (in months)	3 Months	£ 62,484	
	Total finance costs		£ 312,420	
	Developer return	20% Scheme value	£ 549,014	
	Total scheme costs		£ 4,157,290	
RESIDUAL VALUE				
	Gross residual value		£ 1,412,219	
	Less purchaser costs	0.00 % Stamp duty land tax	£ -	
		2.00 % Agent/legal purchase fees	£ -	
	Residual value	For the scheme	£ 1,440,463	
		Equivalent per hectare	£ 21,606,944	
	Not viable			
Comparison with Benchmark Land Value				
	Benchmark land value (per hectare)		£ 555,967	
	Equivalent benchmark land value for site		£ 37,064	
	Viability 'headroom' for the scheme		£ 1,477,527	

Non-residential Viability Assessment Model																					
Four industrial units in a block of 1,600 sqm edge of town																					
		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Size of unit (GIA)</td> <td style="text-align: right;">1600 sq m</td> </tr> <tr> <td>Ratio of GEA to GIA</td> <td style="text-align: right;">100.0%</td> </tr> <tr> <td>GEA</td> <td style="text-align: right;">1600 sq m</td> </tr> <tr> <td>NIA as % of GIA</td> <td style="text-align: right;">95%</td> </tr> <tr> <td>NIA</td> <td style="text-align: right;">1520 sq m</td> </tr> <tr> <td>Floors</td> <td style="text-align: right;">1</td> </tr> <tr> <td>Site coverage</td> <td style="text-align: right;">40%</td> </tr> <tr> <td>Site area</td> <td style="text-align: right;">0.40 Hectares</td> </tr> </table>		Size of unit (GIA)	1600 sq m	Ratio of GEA to GIA	100.0%	GEA	1600 sq m	NIA as % of GIA	95%	NIA	1520 sq m	Floors	1	Site coverage	40%	Site area	0.40 Hectares		
Size of unit (GIA)	1600 sq m																				
Ratio of GEA to GIA	100.0%																				
GEA	1600 sq m																				
NIA as % of GIA	95%																				
NIA	1520 sq m																				
Floors	1																				
Site coverage	40%																				
Site area	0.40 Hectares																				
				<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="background-color: #d9ead3;"></td> <td>User input cells</td> </tr> <tr> <td style="background-color: #d9ead3;"></td> <td>Produced by model</td> </tr> <tr> <td style="background-color: #008000;"></td> <td>Key results</td> </tr> <tr> <td>GEA</td> <td>Gross external area</td> </tr> <tr> <td>GIA</td> <td>Gross internal area</td> </tr> <tr> <td>NIA</td> <td>Net internal area</td> </tr> </table>			User input cells		Produced by model		Key results	GEA	Gross external area	GIA	Gross internal area	NIA	Net internal area				
	User input cells																				
	Produced by model																				
	Key results																				
GEA	Gross external area																				
GIA	Gross internal area																				
NIA	Net internal area																				
SCHEME REVENUE																					
Headline annual rent (in £s per sq m)				£50																	
Annual rent for assesment (total) - NIA				£ 76,000																	
Yield				7.00%																	
(Yield times rent)				£ 1,085,714																	
Less purchaser costs				5.80 % of yield x rent																	
Gross Development Value				£	1,026,195																
SCHEME COSTS																					
Build costs		£ 573 per sq m		£ 916,800																	
Allowance for higher environmental standards		£ 20 per sq m		£ 32,000																	
External costs		10% of base build costs		£ 91,680																	
Total construction costs				£	1,040,480																
Professional fees		12.00% of construction costs		£ 124,858																	
Sales and lettings costs		3% of GDV		£ 30,786																	
S106/278 costs (not covered by CIL)				£ -																	
Total 'other costs'				£	155,643																
Finance costs		6.5% Interest rate																			
Build period		8 Months																			
Finance costs for 100% of construction and other costs				£ 51,832																	
Void finance period (in months)		3 Months		£ 12,958																	
Total finance costs				£	64,790																
Developer return		20% Scheme value																			
Total scheme costs				£	1,466,152																
RESIDUAL VALUE																					
Gross residual value				-£	439,957																
Less purchaser costs				0.00 % Stamp duty land tax	£ -																
				2.00 % Agent/legal purchase fees	£ -																
Residual value				-£	448,757																
				-£	1,121,892																
				Not viable																	
Comparison with Benchmark Land Value																					
Benchmark land value (per hectare)				£	370,645																
Equivalent benchmark land value for site				£	148,258																
Viability 'headroom' for the scheme				-£	597,015																

Non-residential Viability Assessment Model																					
Warehouse unit of 5,000 sqm edge of town, accessible location																					
		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Size of unit (GIA)</td> <td style="width: 50%;">5000 sq m</td> </tr> <tr> <td>Ratio of GEA to GIA</td> <td>100.0%</td> </tr> <tr> <td>GEA</td> <td>5000 sq m</td> </tr> <tr> <td>NIA as % of GIA</td> <td>95%</td> </tr> <tr> <td>NIA</td> <td>4750 sq m</td> </tr> <tr> <td>Floors</td> <td>1</td> </tr> <tr> <td>Site coverage</td> <td>40%</td> </tr> <tr> <td>Site area</td> <td>1.25 Hectares</td> </tr> </table>		Size of unit (GIA)	5000 sq m	Ratio of GEA to GIA	100.0%	GEA	5000 sq m	NIA as % of GIA	95%	NIA	4750 sq m	Floors	1	Site coverage	40%	Site area	1.25 Hectares		
Size of unit (GIA)	5000 sq m																				
Ratio of GEA to GIA	100.0%																				
GEA	5000 sq m																				
NIA as % of GIA	95%																				
NIA	4750 sq m																				
Floors	1																				
Site coverage	40%																				
Site area	1.25 Hectares																				
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	User input cells																				
	Produced by model																				
	Key results																				
GEA	Gross external area																				
GIA	Gross internal area																				
NIA	Net internal area																				
SCHEME REVENUE																					
Headline annual rent (in £s per sq m)				£48																	
Annual rent for assesment (total) - NIA				£ 229,995																	
Yield				7.00%																	
(Yield times rent)				£ 3,285,643																	
Less purchaser costs		5.80 % of yield x rent																			
Gross Development Value				£	3,105,523																
SCHEME COSTS																					
Build costs		£ 405 per sq m		£ 2,025,000																	
Allowance for higher environmental standards		£ 20 per sq m		£ 100,000																	
External costs		10% of base build costs		£ 202,500																	
Total construction costs				£	2,327,500																
Professional fees		12.00% of construction costs		£ 279,300																	
Sales and lettings costs		3% of GDV		£ 93,166																	
S106/278 costs (not covered by CIL)				£ -																	
Total 'other costs'				£	372,466																
Finance costs		6.5% Interest rate																			
Build period		8 Months																			
Finance costs for 100% of construction and other costs				£ 116,999																	
Void finance period (in months)		3 Months		£ 29,250																	
Total finance costs				£	146,248																
Developer return		20% Scheme value		£	621,105																
Total scheme costs				£	3,467,318																
RESIDUAL VALUE																					
Gross residual value				-£	361,796																
Less purchaser costs		4.00 % Stamp duty land tax		-£	14,472																
		2.00 % Agent/legal purchase fees		£	-																
Residual value				-£	383,504																
		Equivalent per hectare		-£	306,803																
Not viable																					
Comparison with Benchmark Land Value																					
Benchmark land value (per hectare)				£	370,645																
Equivalent benchmark land value for site				£	463,306																
Viability 'headroom' for the scheme				-£	846,810																

Non-residential Viability Assessment Model					
Town centre comparison retail 800 sqm					
	Size of unit (GIA)	800	sq m		
	Ratio of GEA to GIA	100.0%			User input cells
	GEA	800	sq m		Produced by model
	NIA as % of GIA	95%			Key results
	NIA	760	sq m	GEA	Gross external area
	Floors	2		GIA	Gross internal area
	Site coverage	80%		NIA	Net internal area
	Site area	0.05	Hectares		
SCHEME REVENUE					
	Headline annual rent (in £s per sq m)			£164	
	Annual rent for assesment (total) - NIA			£ 124,640	
	Yield			7.60%	
	(Yield times rent)			£ 1,640,000	
	Less purchaser costs	5.80	% of yield x rent		
	Gross Development Value			£ 1,550,095	
SCHEME COSTS					
	Build costs	£ 789	per sq m	£ 631,200	
	Allowance for higher environmental standards	£ -	per sq m	£ -	
	Allowance for demolition	£ 70	per sq m	£ 28,000	
	External costs	10%	of base build costs	£ 63,120	
	Total construction costs			£ 722,320	
	Professional fees	12.00%	of construction costs	£ 86,678	
	Sales and lettings costs	3%	of GDV	£ 46,503	
	S106/278 costs (not covered by CIL)			£ -	
	Total 'other costs'			£ 133,181	
	Finance costs	6.5%	Interest rate		
	Build period	12	Months		
	Finance costs for 100% of construction and other costs			£ 55,608	
	Void finance period (in months)	18	Months	£ 83,411	
	Total finance costs			£ 139,019	
	Developer return	20%	Scheme value	£ 310,019	
	Total scheme costs			£ 1,304,539	
RESIDUAL VALUE					
	Gross residual value			£ 245,555	
	Less purchaser costs	4.00	% Stamp duty land tax	£ 9,822	
		2.00	% Agent/legal purchase fees	£ 4,911	
	Residual value			£ 231,656	
	For the scheme			£ 4,633,121	
	Equivalent per hectare				
			Go to next stage		
Comparison with Benchmark Land Value					
	Benchmark land value (per hectare)			£ 2,223,870	
	Equivalent benchmark land value for site			£ 111,193	
	Viability 'headroom' for the scheme			£ 120,463	

Non-residential Viability Assessment Model																																
Out of centre comparison retail multiple units totalling 6,000 sqm																																
<table border="1"> <tr> <td>Size of unit (GIA)</td> <td>6000 sq m</td> </tr> <tr> <td>Ratio of GEA to GIA</td> <td>100.0%</td> </tr> <tr> <td>GEA</td> <td>6000 sq m</td> </tr> <tr> <td>NIA as % of GIA</td> <td>95%</td> </tr> <tr> <td>NIA</td> <td>5700 sq m</td> </tr> <tr> <td>Floors</td> <td>1</td> </tr> <tr> <td>Site coverage</td> <td>40%</td> </tr> <tr> <td>Site area</td> <td>1.50 Hectares</td> </tr> </table>		Size of unit (GIA)	6000 sq m	Ratio of GEA to GIA	100.0%	GEA	6000 sq m	NIA as % of GIA	95%	NIA	5700 sq m	Floors	1	Site coverage	40%	Site area	1.50 Hectares	<table border="1"> <tr> <td></td> <td>User input cells</td> </tr> <tr> <td></td> <td>Produced by model</td> </tr> <tr> <td></td> <td>Key results</td> </tr> <tr> <td>GEA</td> <td>Gross external area</td> </tr> <tr> <td>GIA</td> <td>Gross internal area</td> </tr> <tr> <td>NIA</td> <td>Net internal area</td> </tr> </table>				User input cells		Produced by model		Key results	GEA	Gross external area	GIA	Gross internal area	NIA	Net internal area
Size of unit (GIA)	6000 sq m																															
Ratio of GEA to GIA	100.0%																															
GEA	6000 sq m																															
NIA as % of GIA	95%																															
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	Key results																															
GEA	Gross external area																															
GIA	Gross internal area																															
NIA	Net internal area																															
SCHEME REVENUE																																
Headline annual rent (in £s per sq m)				£135																												
Annual rent for assesment (total) - NIA			£	769,500																												
Yield				7.50%																												
(Yield times rent)			£	10,260,000																												
Less purchaser costs	5.80	% of yield x rent																														
Gross Development Value			£	9,697,543																												
SCHEME COSTS																																
Build costs	£526	per sq m	£	3,156,000																												
Allowance for higher environmental standards	£	20	per sq m	£	120,000																											
External costs	10%	of base build costs	£	315,600																												
Total construction costs			£	3,591,600																												
Professional fees	12.00%	of construction costs	£	430,992																												
Sales and lettings costs	3%	of GDV	£	290,926																												
\$106/278 costs (not covered by CIL)			£	-																												
Total 'other costs'			£	721,918																												
Finance costs	6.5%	Interest rate																														
Build period	14	Months																														
Finance costs for 100% of construction and other costs			£	327,108																												
Void finance period (in months)	8	Months	£	218,072																												
Total finance costs			£	545,181																												
Developer return	20%	Scheme value	£	1,939,509																												
Total scheme costs			£	6,798,208																												
RESIDUAL VALUE																																
Gross residual value			£	2,899,335																												
Less purchaser costs	5.00	% Stamp duty land tax	£	144,967																												
	2.00	% Agent/legal purchase fees	£	57,987																												
Residual value		For the scheme	£	2,709,659																												
		Equivalent per hectare	£	1,806,439																												
Go to next stage																																
Comparison with Benchmark Land Value																																
Benchmark land value (per hectare)			£	500,000																												
Equivalent benchmark land value for site			£	750,000																												
Viability 'headroom' for the scheme			£	1,959,659																												

Non-residential Viability Assessment Model					
Small Convenience Store 300 sqm					
Size of unit (GIA)		300 sq m			
Ratio of GEA to GIA		100.0%			
GEA		300 sq m			User input cells
NIA as % of GIA		95%			Produced by model
NIA		285 sq m			Key results
Floors		1		GEA	Gross external area
Site coverage		40%		GIA	Gross internal area
Site area		0.08 Hectares		NIA	Net internal area
SCHEME REVENUE					
Headline annual rent (in £s per sq m)					£165
Annual rent for assesment (total) - NIA				£	47,025
Yield					6.50%
(Yield times rent)				£	723,462
Less purchaser costs		5.80 % of yield x rent			
Gross Development Value				£	683,801
SCHEME COSTS					
Build costs		£ 1,002 per sq m		£	300,600
Allowance for higher environmental standards		£ - per sq m		£	-
External costs		10% of base build costs		£	30,060
Total construction costs					£ 330,660
Professional fees		12.00% of construction costs		£	39,679
Sales and lettings costs		3% of GDV		£	20,514
S106/278 costs (not covered by CIL)				£	-
Total 'other costs'					£ 60,193
Finance costs		6.5% Interest rate			
Build period		7 Months			
Finance costs for 100% of construction and other costs				£	14,820
Void finance period (in months)		0 Months		£	-
Total finance costs					£ 14,820
Developer return		20% Scheme value		£	136,760
Total scheme costs					£ 542,433
RESIDUAL VALUE					
Gross residual value				£	141,368
Less purchaser costs		0.00 % Stamp duty land tax		£	-
		2.00 % Agent/legal purchase fees		£	2,827
Residual value				£	138,596
For the scheme				£	138,596
Equivalent per hectare				£	1,847,945
Go to next stage					
Comparison with Benchmark Land Value					
Benchmark land value (per hectare)				£	500,000
Equivalent benchmark land value for site				£	37,500
Viability 'headroom' for the scheme				£	101,096

Non-residential Viability Assessment Model				
200 bedroom full service hotel				
	Size of unit (GIA)	10000 sq m		
	Ratio of GEA to GIA	100.0%		
	GEA	10000 sq m		User input cells
	NIA as % of GIA	95%		Produced by model
	NIA	9500 sq m		Key results
	Floors	4	GEA	Gross external area
	Site coverage	50%	GIA	Gross internal area
	Site area	0.50 Hectares	NIA	Net internal area
SCHEME REVENUE				
	Headline annual rent (in £s per sq m)		£126	
	Annual rent for assesment (total) - NIA		£ 1,197,000	
	Yield		7.50%	
	(Yield times rent)		£ 15,960,000	
	Less purchaser costs	5.80 % of yield x rent		
	Gross Development Value		£ 15,085,066	
SCHEME COSTS				
	Build costs	£ 1,333 per sq m	£ 13,330,000	
	Allowance for higher environmental standards	£ 20 per sq m	£ 200,000	
	External costs	10% of base build costs	£ 1,333,000	
	Total construction costs		£ 14,863,000	
	Professional fees	12.00% of construction costs	£ 1,783,560	
	Sales and lettings costs	3% of GDV	£ 452,552	
	S106/278 costs (not covered by CIL)		£ -	
	Total 'other costs'		£ 2,236,112	
	Finance costs	6.5% Interest rate		
	Build period	14 Months		
	Finance costs for 100% of construction and other costs		£ 1,296,683	
	Void finance period (in months)	0 Months	£ -	
	Total finance costs		£ 1,296,683	
	Developer return	20% Scheme value	£ 3,017,013	
	Total scheme costs		£ 21,412,808	
RESIDUAL VALUE				
	Gross residual value		-£ 6,327,742	
	Less purchaser costs	0.00 % Stamp duty land tax	£ -	
		2.00 % Agent/legal purchase fees	£ -	
	Residual value	For the scheme	-£ 6,454,297	
		Equivalent per hectare	-£ 12,908,593	
			Not viable	
Comparison with Benchmark Land Value				
	Benchmark land value (per hectare)		£ 432,419	
	Equivalent benchmark land value for site		£ 216,210	
	Viability 'headroom' for the scheme		-£ 6,670,506	

Non-residential Viability Assessment Model																																	
Edge of centre mixed leisure development																																	
		<table border="1"> <tr> <td>Size of unit (GIA)</td> <td>3800 sq m</td> </tr> <tr> <td>Ratio of GEA to GIA</td> <td>100.0%</td> </tr> <tr> <td>GEA</td> <td>3800 sq m</td> </tr> <tr> <td>NIA as % of GIA</td> <td>95%</td> </tr> <tr> <td>NIA</td> <td>3610 sq m</td> </tr> <tr> <td>Floors</td> <td>2</td> </tr> <tr> <td>Site coverage</td> <td>80%</td> </tr> <tr> <td>Site area</td> <td>0.24 Hectares</td> </tr> </table>		Size of unit (GIA)	3800 sq m	Ratio of GEA to GIA	100.0%	GEA	3800 sq m	NIA as % of GIA	95%	NIA	3610 sq m	Floors	2	Site coverage	80%	Site area	0.24 Hectares	<table border="1"> <tr> <td></td> <td>User input cells</td> </tr> <tr> <td></td> <td>Produced by model</td> </tr> <tr> <td></td> <td>Key results</td> </tr> <tr> <td>GEA</td> <td>Gross external area</td> </tr> <tr> <td>GIA</td> <td>Gross internal area</td> </tr> <tr> <td>NIA</td> <td>Net internal area</td> </tr> </table>			User input cells		Produced by model		Key results	GEA	Gross external area	GIA	Gross internal area	NIA	Net internal area
Size of unit (GIA)	3800 sq m																																
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GEA	Gross external area																																
GIA	Gross internal area																																
NIA	Net internal area																																
SCHEME REVENUE																																	
Headline annual rent (in £s per sq m)					£102																												
Annual rent for assesment (total) - NIA					£ 368,220																												
Yield					8.50%																												
(Yield times rent)					£ 4,332,000																												
Less purchaser costs					5.80 % of yield x rent																												
Gross Development Value					£ 4,094,518																												
SCHEME COSTS																																	
Build costs					£ 1,157 per sq m £ 4,396,600																												
Allowance for higher environmental standards					£ 20 per sq m £ 76,000																												
External costs					10% of base build costs £ 439,660																												
Total construction costs					£ 4,912,260																												
Professional fees					12.00% of construction costs £ 589,471																												
Sales and lettings costs					3% of GDV £ 122,836																												
S106/278 costs (not covered by CIL)					£ -																												
Total 'other costs'					£ 712,307																												
Finance costs					6.5% Interest rate																												
Build period					12 Months																												
Finance costs for 100% of construction and other costs					£ 365,597																												
Void finance period (in months)					0 Months £ -																												
Total finance costs					£ 365,597																												
Developer return					20% Scheme value £ 818,904																												
Total scheme costs					£ 6,809,067																												
RESIDUAL VALUE																																	
Gross residual value					-£ 2,714,549																												
Less purchaser costs					0.00 % Stamp duty land tax £ -																												
					2.00 % Agent/legal purchase fees £ -																												
Residual value					-£ 2,768,840																												
For the scheme					-£ 2,768,840																												
Equivalent per hectare					-£ 11,658,275																												
Not viable																																	
Comparison with Benchmark Land Value																																	
Benchmark land value (per hectare)					£ 432,419																												
Equivalent benchmark land value for site					£ 102,700																												
Viability 'headroom' for the scheme					-£ 2,871,540																												

Non-residential Viability Assessment Model						
Care home 60 bedrooms						
Size of unit (GIA)		2940	sq m			
Ratio of GEA to GIA		100.0%				User input cells
GEA		2940	sq m			Produced by model
NIA as % of GIA		95%				Key results
NIA		2793	sq m		GEA	Gross external area
Floors		2			GIA	Gross internal area
Site coverage		40%			NIA	Net internal area
Site area		0.37	Hectares			
SCHEME REVENUE						
Headline annual rent (in £s per sq m)					£140	
Annual rent for assesment (total) - NIA				£	391,020	
Yield					7.75%	
(Yield times rent)				£	5,045,419	
Less purchaser costs		5.80	% of yield x rent			
Gross Development Value					£	4,768,827
SCHEME COSTS						
Build costs		£ 1,104	per sq m	£	3,245,760	
Allowance for higher environmental standards		£ 20	per sq m	£	58,800	
External costs		10%	of base build costs	£	324,576	
Total construction costs					£	3,629,136
Professional fees		12.00%	of construction costs	£	435,496	
Sales and lettings costs		3%	of GDV	£	143,065	
S106/278 costs (not covered by CIL)				£	-	
Total 'other costs'					£	578,561
Finance costs		6.5%	Interest rate			
Build period		12	Months			
Finance costs for 100% of construction and other costs				£	273,500	
Void finance period (in months)		0	Months	£	-	
Total finance costs					£	273,500
Developer return		20%	Scheme value	£	953,765	
Total scheme costs					£	5,434,963
RESIDUAL VALUE						
Gross residual value					£	666,136
Less purchaser costs		0.00	% Stamp duty land tax	£	-	
		2.00	% Agent/legal purchase fees	£	-	
Residual value					£	679,458
For the scheme					£	1,848,866
Equivalent per hectare						
Not viable						
Comparison with Benchmark Land Value						
Benchmark land value (per hectare)				£	432,419	
Equivalent benchmark land value for site				£	158,914	
Viability 'headroom' for the scheme					£	838,372

APPENDIX 8 – CUTLAND CONSULTING REPORT – CODE LEVEL 5 WATER

REPORT FOR
Three Dragons
Herefordshire Council – Code level 5 water

Report number T/137, February 2014

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Report number T/137

February 2014

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3. OFFSETTING.....	4

Cutland Consulting Limited

Report for Three Dragons

Herefordshire Council – Code 5 Water

1. Our brief

We were asked to provide an opinion on the implications of Herefordshire Council requiring Code for Sustainable Homes level 5 for water (credit 'WAT1') in newbuild housing, as outlined in Kathleen Dunmore's emails to us of 29 January and 4 February 2014. The work was carried out by Cutland Consulting's Director, Dr Neil Cutland.

2. Technical feasibility of Code level 5 for WAT1

The Council's proposal is to address the WAT1 (Indoor Water Use) credit in the Code for Sustainable Homes, and not to address WAT2 (External Water Use). This seems reasonable given that only WAT1 has mandatory requirements at the various Code levels. To achieve Code level 5 or 6 the indoor water consumption must be no more than 80 litres per person per day (l/p/d). To put this in context, Approved Document G of the Building Regulations specifies a maximum of 125 l/p/d.

The definitive guide to the costs of the various credits within the Code is "*Cost of building to the Code for Sustainable Homes - Updated cost review*", produced for DCLG in August 2011 by Element Energy and Davis Langdon¹. This document assessed the extra-over costs against a baseline dwelling built to the Building Regulation standards of 2006.

The document suggests that, while there are many combinations of low-flow appliances and techniques that can jointly contribute to reaching the Code level 5 target of 80 l/p/d, to achieve such a low level in practice requires a grey water recycling system. For this reason the report quotes **an additional cost between £4,650 and £6,150 per dwelling**, depending on the type and size of the home.

The cost of building to the Code has generally come down since 2011, so in 2013 a group of six local authorities commissioned Element Energy and Davis Langdon to revisit some of the costs. Their report, "*Costs of building to the Code for Sustainable Homes, September 2013*"² does not contain much detail on the cost of the WAT1 credit, although the table in Figure 6 indicates that for a 3 bed semi-detached house the additional cost is £2,500 rather than the £4,700 quoted in the 2011 report. This is essentially because of a different technical assumption rather than any general reduction in the cost of the WAT1 credit; the

¹ <https://www.gov.uk/government/publications/cost-of-building-housing-to-the-code-for-sustainable-homes-standard-updated-cost-review>

² [http://www.brighton-hove.gov.uk/sites/brighton-hove.gov.uk/files/EP059%20Costs%20of%20building%20to%20the%20Code%20for%20Sustainable%20Homes%20\(Sept%202013\)%20\(draft\).pdf](http://www.brighton-hove.gov.uk/sites/brighton-hove.gov.uk/files/EP059%20Costs%20of%20building%20to%20the%20Code%20for%20Sustainable%20Homes%20(Sept%202013)%20(draft).pdf)

authors assumed a (cheaper) rainwater harvesting system instead of the grey water recycling system that was assumed in 2011.

The report also notes that because smaller properties have less opportunity for reducing water consumption via flow-restricted taps and appliances, such dwellings are still likely to require the more expensive grey water recycling system in order to meet the 80 l/p/d target. As a result, it can be concluded following the 2013 report that the cost to achieve Code level 5 for water is **between £2,500 and £6,150 per dwelling**.

We tested the assumption that Code level 5 cannot be achieved without either rainwater harvesting or grey water recycling, by informally consulting other expert sources. Our findings were as follows:

- A very experienced Code Assessor (EcoDesign Consultants) stated categorically that “in our experience it is impossible without one or the other”.
- One of the UK’s best-known water consultants (ech₂o) contend that it *is* theoretically possible without either system, but only if there is no bath in the property and showers are restricted to 5 minutes³.
- The Environment Agency states that “at 80 litres per person per day... more advanced technology - such as grey water and rainwater recycling systems – is needed.”⁴
- A sustainability manager with a major housing group told us that only one of several of his Code level 5/6 schemes managed to reach the water target without the need for rainwater or grey water systems, and that the flow rate through the taps and showers was so low as to make them “almost unusable”.

Finally, although anecdotally, it is interesting to consider the embodied carbon implications of using rainwater harvesting systems in individual dwellings; arguably the reservoirs owned by the UK’s water companies perform precisely the same task, at zero additional carbon cost.

3. Offsetting

Aware of the significant cost implications of specifying Code level 5 for newbuild housing, an extremely innovative alternative was explored by Central Bedfordshire Council in 2012. Their approach was to require only level 4 for credit WAT1 (ie. 105 l/p/d) but thereafter to allow ‘offsetting’, whereby the equivalent of level 5 would be achieved through water savings elsewhere. (It is important to note that, while this approach is admirably pragmatic, the Code contains no formal provision for offsetting - so the Council’s approach could not claim to be ‘Code level 5’ in the strict sense.)

Essentially, each new home would be required to meet WAT1 level 4 and also be responsible for bringing an existing home up to WAT1 Level 4. The Council argued as follows that this was a valid methodology:

³ <http://www.ech2o.co.uk/downloads/Achieving%20Level%206%20-%20Water%20An%20RIBA%20South%20Conference%20on%20the%20CSH%2022.4.08.pdf>

⁴ <http://www.environment-agency.gov.uk/research/library/publications/41043.aspx>

- The 'a priori' assumption is that the combination of one new home plus one existing home both meeting WAT1 level 4 is equivalent to one new home alone achieving WAT1 level 5.
- WAT1 level 4 mandates no more than 105 litres per person per day (l/p/d), and level 5 no more than 80 l/p/d; the saving required to move from level 4 to level 5 is therefore 25 l/p/d.
- Given that the existing home at level 4 will be required to reach 105 l/p/d, for this to represent 25 l/p/d of savings the home must have been using at least 130 l/p/d in the first place. Is that a reasonable assumption?...
- The Consumer Council for Water indicates that the average 3-person family uses between 82 and 175 (136 on average) l/p/d⁵. This is sufficiently close to 130 l/p/d to indicate that the technical assumptions underpinning the proposed offsetting approach are indeed reasonable.

According to DCLG's 2011 cost guide, in the newbuild context the cost of building to WAT1 level 4 is just £250 per dwelling (because no rainwater or grey water systems are required). Central Bedfordshire Council's basic assumption was that it is three times as expensive to achieve WAT1 level 4 in an existing home as it is for newbuild (ie. the existing dwelling costs £750). This figure was then 'sense-checked' as follows:

- The £250 indicated in DCLG's 2011 report represents only the *marginal* cost of low water use taps, flow restrictors, sanitaryware and associated fittings in the newbuild context.
- If three times this (ie. £750) is indeed sufficient for retrofitting an existing home, it must cover the *full* cost of the same items plus, say, 1-2 days' labour.
- Assuming £40/hr for labour (ie. £300-600 in total), this would leave £150-450 for the taps, flow restrictors, sanitaryware and associated fittings – which is quite reasonable.

Central Bedfordshire Council then added a contingency sum of £250 and concluded that **from both a technical and commercial perspective, the equivalent of Code level 5 for water could be achieved through their proposed offsetting approach within a cost of £1,000 per newbuild dwelling.**

The Council subsequently commissioned a detailed study by Artesia Consulting, "*Evidence base for water efficiency measures, report AR1071, August 2013.*" The report reviewed the current range of technologies that can be installed in new homes and retrofitted in existing homes, and also included a calculator for estimating the volume of water that needs to be offset from a planned housing development by retrofitting water appliances in older properties⁶.

⁵ <http://www.ccwater.org.uk/server.php?show=ConWebDoc.913>

⁶ The Council have indicated to us that they are happy for this report to be used by other parties in evidence.