Warwick District Council

Affordable Housing Viability Assessment

Final Report

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Executive Summary

DTZ has been commissioned by Warwick District Council (WDC) to carry out an Affordable Housing Viability Assessment (AHVA) of the delivery of affordable housing across the District. The work has been undertaken to inform the development of a policy for affordable housing provision to be contained in the Council's LDF Core Strategy and to satisfy the requirement set out in PPS3: Housing that affordable housing targets and thresholds should take into account the impact they may have on the economic viability of development schemes.

This is a strategic study which considers viability at a policy level and is not focused upon specific site analysis. The results of this study will inform policy but do not bind WDC to adopt the results or follow the guidance in relation to specific or individual sites. Neither do the results of this study and the completion of the commission result in DTZs support of any subsequent affordable housing policy created and adopted by WDC. DTZ have acted in an independent advisor capacity and will not draft any subsequent affordable housing policy produced by WDC.

Any subsequent affordable housing policy drafted by WDC will not only need to take account of the viability assessment but also the Strategic Housing Market Assessment (SHMA) which is currently underway and is due to be concluded in Summer 2011. Both the AHVA and SHMA along with any other additional supporting evidence on housing need and market demand will form the evidence base in the production of a Core Strategy Affordable Housing Policy and any additional Supplementary Planning Documents produced following adoption of the Core Strategy.

It was agreed that the most appropriate approach would be to test a number of hypothetical sites typical of sites coming forward across the District. Sites were characterised as falling within one of the five areas;

1. Town Centres
2. Suburban Areas
3. Rural Areas
4. Deprived Wards
5. Small Urban Extension Sites (up to 200 units) – these sites will be analysed in smaller phases also.

In order to assess different affordable housing options, a number of key variables were selected and adjusted in isolation to test the impact different levels of affordable housing provision. The key variables were; market position (baseline, mid and improved), location, value area (high medium and low), density (high, medium and low), proportion of affordable housing (up to 50%) and tenure split (social rented/intermediate tenure).

The basis for the study was to appraise a range of hypothetical sites using a model which calculates the cashflow of the hypothetical schemes and the rate of return (profit), similar to that used by most house builders/developers. The study focused on new build residential developments (including conversion schemes in town centres), as these are the sites that will deliver affordable housing through Section 106 agreements.

Return was used as a measure of the sites profitability. Thus it was assumed that sites resulting in a return lower than 20% of Gross Development Value would not be brought forward by the developer given the margins required and risks involved in development.

In all cases the profitability of a site decreased as levels of affordable housing were increased. Sites in high value areas tended to have the capacity to deliver the highest levels of affordable housing whilst remaining profitable. Sites in low value areas experienced the greatest impact on profitability as quotas of affordable housing were increased.

Generally, profitability increased as the tenure split was adjusted to include a greater proportion of intermediate tenures. However, in real terms, this differential tended not to be significant enough to increase the level of affordable housing which could be provided.

The results of each of the market scenarios tested above show that the five distinct markets Town Centres, Suburban Areas, Rural Areas, Deprived Areas and Urban Extension Areas (which neighbours the suburban areas), perform differently in the current market conditions.

The results of the modelling work is provided in more detail in the following chapters of this report. However, a brief summary is given in the table below. These results are calculated by using each of the development appraisal assumptions outline in Chapter 3 of this report and using a residual method of valuation in order to calculate the level of affordable housing which can be viability delivered in each market area.

There are a number of different ways to assess viability. The first is to drawn a line where 50% or more of the sites can deliver that level of affordable housing. However, in areas such as Warwick which have high levels of housing need it is important to consider what level of

affordable housing can be delivered on all sites and therefore different sets of results are outlined below and throughout this report.

If we take the overall average for each of the market areas the following position can be seen where 50% or more of the sites are viable at the levels recorded:

Market Area	Baseline Market Position	Mid Market Position	Improved Market Position
Town Centre	35% Affordable Housing (50% SR/ 50% Int)	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)
Suburban	20% Affordable Housing (80% SR/ 20% Int)	25% Affordable Housing (65% SR/ 35% Int)	35% Affordable Housing (80% SR/ 20% Int)
Deprived Areas	0% Affordable Housing	0% Affordable Housing	0% Affordable Housing
Rural Areas	35% Affordable Housing (50% SR/ 50% Int)	40% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)
Urban Extensions	0% Affordable Housing	30% Affordable Housing (50% SR/ 50% Int)	40% Affordable Housing (80% SR/ 20% Int)

If we review this position to record viability where any green or amber lights are shown the following results can be seen:

Market Area	Baseline Market Position	Mid Market Position	Improved Market Position
Town Centre	50% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)
Suburban	40% Affordable Housing (65% SR/ 35% Int)	40% Affordable Housing (65% SR/ 35% Int)	35% Affordable Housing (80% SR/ 20% Int)
Deprived Areas	0% Affordable Housing	0% Affordable Housing	10% Affordable Housing (80% SR/ 20% Int)
Rural Areas	50% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)
Urban Extensions	25% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (65% SR/ 35% Int)	50% Affordable Housing (80% SR/ 20% Int)

The results above show that a range of 0%-50% affordable housing is deliverable depending upon the scenario and area tested and the tipping point selected. It is important to note at this point that each of the market areas were split into three separate value areas (High, Medium and Low) and the Town Centres of Leamington Spa, Warwick and Kenilworth were separately assessed. This has resulted in a range of results for each of the market areas (the results above are the overall results for the market areas). A more detailed breakdown of the results can be seen in chapters 4 to 7 in the main body of the report.

Given that certain areas of the District perform far better than others, DTZ would suggest the Council consider producing a zoned affordable housing policy which has different affordable housing percentages by area. There is the ability from the analysis undertaken to further segregate these results into High, Medium and Low value areas however, given the complexity that this would bring, DTZ would suggest that the policy is not further segmented as the results would be unmanageable and difficult to interpret. Rather, the information provided above should be used to aid site specific viability discussions.

However, WDC may consider that having a zoned affordable housing policy will be too complicated to deliver and may cause uncertainty in areas where sites fall on the boundary of two market areas and therefore as part of this study we have collated the results into a District Wide policy. If we look first at the District as a whole by combining the average results of each of the market areas we can see the following headline results.

Baseline Market Position	Mid (Point) Position	Improved Market Position
14% Affordable Housing	27% Affordable Housing	33% Affordable Housing

These results are calculated taking the viability on the majority of sites (50% or more) for each of the market sectors combining them and giving an average for the Warwick District as a whole. If we look at the position where sites start to show viability (1 or more sites yield a viable result) the following results can be seen.

Baseline Market Position	Mid (Point) Position	Improved Market Position
33% Affordable Housing	36% Affordable Housing	39% Affordable Housing

Given the level of need for affordable housing across the District it is clear that setting a policy for 15 years based on the current market conditions is not sustainable and will not support WDC in meeting their statutory requirement to provide housing for those in need. It is also important to consider here that this document only forms one part of the evidence base for the Affordable Housing Policy and the results of the SHMA need to be considered alongside these results before concluding on acceptable way forward.

Threshold Analysis

Warwick District Council's current policy position requires affordable housing to be delivered on sites over 10 units or 0.25 hectares in the urban areas and on sites over 3 units in the rural areas. Analysis has been undertake within the report determine if these are appropriate thresholds for the District based on the results of this assessment, whether lower thresholds would deliver a greater supply of housing or indeed whether higher thresholds in line with the PPS3 suggestion of 15 units would be more appropriate.

Whether a threshold is appropriate depends on a number of considerations:

- First it is appropriate to consider the relevant planning context, in this case the guidance contained in PPS3
- Second, it is necessary to consider the viability of the proposed threshold in terms of:

- Whether schemes just under the threshold could contribute affordable housing
- Whether schemes well below the threshold could contribute affordable housing

- Third, the practicality of the proposed threshold needs to be examined, in terms of:
  - The administration involved in seeking a contribution for schemes below this threshold, and whether this would deliver a significant amount of affordable housing without other adverse consequences.

It is clear therefore from the results above that a tipping point of 6/7 units is apparent for each of the areas tested. In the highest value areas such as Leamington Spa and the Rural areas a tipping point of 6 units can be delivered. Based on this research it is clear that Warwick District Council could reduce their sites thresholds to 6 units or 0.25 hectares in the urban areas without materially impacting upon scheme viability.

The results of this modelling focusing on small sites shows that the difference in viability between sites of 10 units and 7 units is minimal. If WDC are considering reducing their policy threshold to below the PPS 3 suggested target of 15 units and below their existing threshold of 10 units, there is evidence to support this (above). The suitability of a different threshold must be considered in light of the sites proposed through the SHLAA and the likely developments which will take place on sites across the market areas.

PPS3 indicates that adoption of a lower threshold than the national norm of 15 units should take into account not only viability issues but also the practicality of applying a lower threshold. In terms of practicality, consideration needs to be given to the benefits of applying a lower threshold in terms of securing more affordable housing units than would otherwise be the case; versus the administrative costs of bringing a large number of schemes within the net of affordable housing policies, and any unintended consequences such as reducing the overall delivery of housing, deterring developers and causing delays in the planning system.

1.0 The Study Brief

1.1 DTZ has been commissioned by Warwick District Council (WDC) to carry out an Affordable Housing Viability Assessment (AHVA) across the District. The work has been undertaken to inform the development of an affordable housing policy to be contained in the Council's LDF Core Strategy and to satisfy the requirement set out in PPS3: Housing, that affordable housing targets and thresholds should take into account the impact that these may have on the economic viability of development schemes.

1.2 This is a strategic study which focuses on viability at a policy level and does not consider site specific analysis. The results of this study will inform policy but do not bind WDC to adopt the results or follow this guidance in relation to specific or individual sites. Neither do the results of this study and the completion of the commission result in DTZ's support of any subsequent affordable housing policy adopted by WDC. DTZ have acted in an independent advisory capacity and will not draft any subsequent affordable housing policy on behalf of WDC.

1.3 Any subsequent affordable housing policy will not only take account of this AHVA but also the Strategic Housing Market Assessment (SHMA) which considers housing need and requirements across the District. Both of these documents, along with any other additional supporting evidence on housing need and market demand will form the evidence base in the production of a Core Strategy Affordable Housing Policy, and any additional Supplementary Planning Documents produced following adoption of the Core Strategy.

Study Purpose and Objectives

1.4 A growing proportion of affordable housing has been delivered via Section 106 Agreements in recent years. It is increasingly important therefore that local authority housing policy is realistic and credible, taking into account the local housing market, house prices, supply, demand and need issues and the results of the SHMA when formulating any opinion on a requirement/target for affordable housing delivery on new build schemes.

1.5 The SHMA does not consider the impact of affordable housing policies on development viability. The purpose of this AHVA is therefore to provide evidence to ensure that the proposed policy for affordable housing is not so onerous that it prevents sites from coming forward, which could result in stifling development of not only affordable but also open market housing.

1.6 The specific objectives of the AHVA are to assess the impact on viability of the following variations on the affordable housing policy:

- Whether the current affordable housing target of 40% should be retained or whether this should be increased or decreased to take account of current market and the possible conditions over the lifetime of the Core Strategy;
- Whether the current threshold of 10 units, or 0.25 ha, before affordable housing is required is acceptable and deliverable, or whether this should be increased or decreased to ensure a greater number of affordable housing units are delivered overall;
- What should the tenure split between intermediate and social rented units be in order to maximise affordable housing delivery and ensure a greater overall proportion of affordable housing? (It should be noted at this point that, at the time of completing this commission, Affordable Rent has not been released and therefore this report considers more traditional intermediate tenures only.)

Study Approach

1.7 It has been important for the study to test the viability of different site types in different locations in order to understand how viability varies with site size, different values of the housing developed and different locations. It has, therefore, been necessary to develop a typology of the different types of sites likely to come forward for housing development in Warwick District, and to test the viability of these hypothetical sites under a set of different development scenarios.

1.8 The typology of sites to be assessed was developed in conjunction with WDC and stakeholders to reflect the authority's current policies and their experience of the range, type of sites and locations which they envisage would come forward through the planning system for the future provision of housing.

1.9 This approach of testing hypothetical sites allows different policy options to be tested in a consistent manner across the range of likely development scenarios. This would not be possible in the same way had the study focused on actual "real life" sites where the particular features of those sites would inevitably have made it difficult to generalise about viability.

1.10 Central to the assessment of the viability of housing development is the concept of residual land value[1] Residual land value is the value that can be attributed to land, when the total cost of development, including an allowance for profit, is deducted from the sales values of housing built on site. If there is a residual land value that is higher than the existing use value then the development can be deemed viable; if it is below then the development will not be considered viable by the market.

1.11 The majority of developers assess the land value of a prospective development using a residual approach. Having calculated its residual project value, developers use discounted cash flow[2] analysis to calculate the Rate of Return for the project.

1.12 For the purpose of this study, DTZ have assumed, through their experience of working with developers, that a developer will require a minimum return of 20% (on GDV) if they are to proceed. Developments that would yield less than this threshold are deemed not to be viable since they do not generate the target rate of return. There are certain circumstances where a developer will proceed with higher or lower rates of return but for this project, the middle ground is selected.

1.13 At the core of the study is a detailed viability modelling exercise. This examines the impact on viability of different affordable housing contributions upon hypothetical development schemes in different parts of the study area. The modelling runs a cash flow analysis of each of the hypothetical schemes under each development scenario. More information on the model is presented in Section 2 of this report, with details provided on the way the model works, its key assumptions and its operation.

1.14 In summary, the key questions of economic viability assessment are whether the level of affordable housing and the balance of tenures proposed are viable or, whether a particular level of affordable housing provision will inhibit development and, by implication, the level of affordable housing provision that can be delivered.

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[1] This valuation approach is applied for property with development or redevelopment potential. This equation is: Completed Development Value less Planning and Construction cost; less on cost and finance costs; less Developers Profit = Residual Land Value.

[2] A Discounted Cash Flow (DCF) valuation approach is used to value a project using the concept of time value of money. All estimated future cash flows are discounted by a percentage value usually representing interest on finance to return the future cash flows to a present value.

2.0 Policy Context

2.1 This section provides the context for the assessment of viability. It first examines national policy guidance in relation to affordable housing and the relevance of viability on policy development. The section then goes on to consider the current affordable housing policy for Warwick District, which will be subject to review following this work and the work undertaken as part of the SMHA.

National Planning Policy and Affordable Housing Provision

2.2 The key element of the Government's policies for planning and affordable housing provision is Planning Policy Statement 3: Housing (PPS3), updated in June 2010. PPS3 defines affordable housing as follows:

"*Affordable housing includes social rented and intermediate housing, provided to specified eligible households whose needs are not met by the market. Affordable housing should:*

- *Meet the needs of eligible households including availability at a cost low enough for them to afford, determined with regard to local incomes and house prices.*
- *Include provision for the home to remain at an affordable price for the future eligible households or, if these restrictions are lifted, for the subsidy to be recycled for alternative affordable housing provision."*

2.3 PPS3 makes it clear that the Government's aims are to ensure, through the planning system, that enough land is identified and brought forward for development of new housing in line with targets established by Government and determined through the planning process, whilst recognising that land values must be high enough to encourage land owners to sell land for housing.

2.4 Specifically, paragraph 29 of PPS3 places the requirement on local authorities to set a target for affordable housing provision to be delivered through Section 106 policies, but to take into account the need for development to be viable. This paragraph states that different targets for social rented and intermediate housing should be set where relevant and that the size and type of affordable housing required is specified. Local authorities should also set out the range of circumstances in which affordable housing will be required and their approach to seeking developer contributions to facilitate the provision of affordable housing, including a minimum site threshold over which affordable housing will be required.

2.5 PPS3 indicates that local authority affordable housing policies need to be developed on the basis of a robust evidence base. Policy must be deliverable, not merely aspirational. However, although detailed guidance is available on the assessment of housing need and demand, there is no formal guidance on how viability should be tested. PPS3 was prepared before the current slowdown in the housing market and the Government has not advised local authorities on how they should respond to market changes as they develop their policies.

2.6 On the 14th February 2011, CLG released consultation documents to seek views on Affordable Rent proposed to be included as part of the definition of affordable housing in a revised annex B to *Planning Policy Statement 3: Housing* (PPS3). This change will mean affordable rent can be regarded as affordable housing for planning purposes. The results of this study were completed in October 2010 prior to this consultation period opening and therefore has not been reflected in this study but is a change WDC will have to consider in any future drafting of affordable housing policy.

Housing Market Assessment

2.7 Warwick District Council is included in the South Housing Market Areas Assessment 2006, a sub regional study covering eight Local Authorities; Bromsgrove, Malvern Hills, Redditch, Worcester City, Wychavon and Wyre Forest in Worcestershire, and Stratford – on- Avon and Warwick in South Warwickshire. [3]

2. 8 The main findings of the report, produced by Rupert Scott an independent affordable housing consultant, of relevance to this AHVA are:

- Requirement for 2,800 additional affordable dwellings across the 8 districts;
- Requirement for 2,200 additional affordable dwellings across the South Housing Market Area (which excludes some areas of Warwick District);
- Only one third of households currently in housing need are in their own accommodation;
- The areas of greatest need are 2 bedroom houses for young families and 4 bedroom houses for established families that have outgrown their current accommodation.

[3] www.worcestershire.gov.uk/shma

- Half of the requirement is for social rented accommodation. The other 50% could purchase a property at the lower quartile cost of an average figure of £67,000 across the sub region.

2.10 The report has been monitored every year, updating the SHMA and those conclusions have also been considered during the production of this AHVA.

2.11 Warwick District Council have also recently commissioned their own SHMA for the District which is due to be completed in late Summer 2011. The SHMA along with the regional SHMA and this AHVA will form the evidence base upon which Warwick District Council will base any future affordable housing policy.

Warwick District Council's Affordable Housing Policy

2.12 The current requirement for affordable housing is set out in The Warwick District Local Plan (1996-2011) which was adopted in September 2007. The policies relevant to affordable housing are **SC1, SC11, RAP1** and **RAP4.** The Local Plan can be viewed on the Council's web site at:

http://www.warwickdc.gov.uk/NR/rdonlyres/D604A7A3-9B62-47C1-91B0-9D304155F37B/0/Adopt2Complete.pdf

2.13 The Affordable Housing Supplementary Planning Document (SPD) was adopted by the Council in January 2008. This document expands upon the affordable housing policies in the Local Plan. The SPD can be found at:

http://www.warwickdc.gov.uk/NR/rdonlyres/1A63FD22-0373-4497-ADC2-ED90175A6116/0/AffordableHousingSPDreduced.pdf

2.14 In summary the main requirements are that, for all new housing developments of 10 dwellings or 0.25 hectare or more in urban areas, or 3 dwellings or more in rural areas, the minimum affordable housing requirement is 40%. The preference is also for 80 percent of all new affordable homes provided to be social rented and the remaining 20 percent intermediate tenures.

Timing of this Study

2.15 This report was prepared in October 2010, during a more stable period of depressed housing market circumstances following a period of more severe market downturn which has caused substantial concerns around viability in housing development generally. It is inevitable that viability studies have to be undertaken at a particular point in time (in this instance the valuation date of June 2010), and reflect a particular set of market circumstances, but the information they yield on how affordable housing delivery varies by site size, development context, etc. The range of scenarios tested is useful for policy making, even in the current market environment. Planning policies for affordable housing also need to be set for the long term, and should have sufficient flexibility to cope with changes in the market.

2.16 This implies that authorities need a degree of flexibility in the application of affordable housing policies. The existing system allows for developers to make the case to authorities where a policy requirement cannot be delivered on a particular site given the particular circumstances of that site. Some flexibility on how policy requirements for affordable housing can be met can be built into the system by considering options to change the tenure mix (between social rented and intermediate housing for sale) or deliver a percentage of square footage rather than a percentage of units which may have a lesser impact.

2.17 However, it is well known that when developers acquire sites in competitive situations they do not always fully allow for the costs of affordable housing provision in accordance with policy. Similarly, developers will not immediately adjust their bid prices to reflect changes in affordable housing and/or planning policy. It should not be the role of the planning policy to compensate developers who have overpaid for land or misjudged aspects of developments costs or revenues by simply adjusting the level of affordable housing that should be delivered on sites.

2.18 Local authorities need to appreciate how development viability is assessed in order to be in a position to negotiate where necessary over affordable housing requirements, whilst seeking to ensure that policies can be applied for the majority of developments. The balance between being sufficiently robust to ensure that not every application is subject to negotiation, whilst being sufficiently flexible to recognise special circumstances is a difficult balance to strike, but it is in the interest of both the development industry and local authorities to find the right balance.

3.0 Viability Model Workings and Assumptions

3.1 This section of the report provides an overview of the structure of the viability model and the assumptions it uses.

Model Targets – What defines Viability?

3.2 The model is based on the principles of Argus Circle Developer. These have been translated into an Excel based model with viability defined by the achievement of a target Rate of Return

3.3 The target return – the requirement for a scheme to be deemed viable – is set at 20% of Gross Development Value (GDV) net (though this can be varied within the model). The model also measures scheme profitability, as defined by scheme surplus divided by scheme cost (profit on cost) and the Internal Rate of Return (IRR) attributed to the scheme. The IRR applies a discount rate to attach a 'worth' to when costs or revenues arise. These provide a useful measure of profitability which many developers use to decide whether a scheme is viable and are a useful benchmark against which profit on GDV can be assessed.

3.4 A target return of 20% GDV (net) was selected following stakeholder consultation and an assessment of minimum return requirements for the development sector. Net profit is the profit to the developer following any deductions for finance, marketing and overheads which are accounted for separately within the model.

3.5 Whilst each method is calculated by the model, for the purposes of this study we focus upon the target return of 20% GDV to establish whether a scheme is viable, given that differential sales rates over time and the impact on scheme finances have an important impact on scheme viability, especially in the current market where development timescales have increased. As well as examining different rates of return across schemes, the model calculates residual land values to determine whether this is above alternative use values.

Approach

3.6 DTZ has adopted a staged approach in assessing the financial viability and impact of different affordable housing options.

Stage 1 involved market research to determine key model inputs. The selection of development scenarios to be examined and selection of hypothetical sites was also undertaken.

Stage 2 agreed the modelling inputs and scenarios with WDC and consulted on these with key stakeholders. Following consultation, assumptions were altered, where appropriate, to reflect stakeholders comments (see Appendix A)

Stage 3 involved modelling to test the viability of development on different hypothetical sites, and how this would be affected by the application of different requirements for affordable housing.

Stage 4 considered the threshold for the delivery of affordable housing across the Warwick District and included more detailed analysis of smaller sites.

3.7 The study approach is tailored to the specific requirements and circumstances of Warwick District. It takes account of a range of circumstances applied across the study areas but does not seek to capture analysis of the specific housing sites. To do this would have been impossible in practical terms and inappropriate to a strategic study designed to inform policy development.

3.8 There will always be a wide range of specific circumstances that will affect viability on particular sites, and developers will assess these in determining whether to proceed. In addition, developers are not homogenous and what this strategic study has to do, in order to produce meaningful results, is to homogenize assumptions across the District to enable the variable of delivering affordable housing to be altered. If all other variables were not fixed, the impact of affordable housing requirements could not be properly assessed. Developer's appetites for risk vary, and they have different requirement in terms of returns. Abnormal development costs are particularly site and developer specific and a developers approach to development may change in different market circumstances and different market areas, and it is impossible to capture this level of variance in a strategic policy appraisal.

Model Inputs

3.9 As the result of the downturn, residual land values have fallen significantly from their peak in mid 2007 and this places substantial pressure on the viability of residential development. Therefore as part of the viability modelling, different scenarios have been modelled from the Baseline Position to take account of the peaks and troughs in the market that will occur over the life of the policy and Core Strategy. Therefore the following modelling scenarios have been tested:

1. Baseline position – assesses the market circumstances at the date of completing this work. (Summer 2010)
2. Improved Market Position – this scenario looks at an improved market position where property prices are more stable and property transactions more frequent, similar conditions to those seen in early 2007.
3. Mid Point Position – this is the midpoint between the two other scenarios.

3.10 The key variable assumptions that have been used for testing viability in the model are as follows:

- Market Area
- Site Size
- Density
- Dwelling Mix
- Revenues
- Costs

3.11 The assumptions outlined below are the final assumptions inputted into the model which have been altered to reflect stakeholder feedback. For analysis of the movement between the original assumptions and those used for the modelling, please see Appendix A.

3.12 The model is structured on the basis of a time series cash flow for a particular development. The main input into the model is the configuration of the scheme, in terms of the number of dwellings, density, tenure and disposal period. The hypothetical schemes which have been selected to reflect a representative range of different sites across Warwick District.

3.13 A key driver of development viability is the sales values that can be achieved on new schemes. Higher sales values produce greater revenue streams, thus improving margin if costs are a key constant. However, in practice competitive bidding for land means that a

development in a high value area is often no more profitable than in a lower value area, as higher revenues are offset by higher land costs (thereby keeping returns at the same level).

3.14 An important part of the viability modelling is therefore to capture how sales values (and by implication land values) vary across Warwick District. In order to do this we have identified distinct geographies and market areas, which we refer to as 'value geographies'.

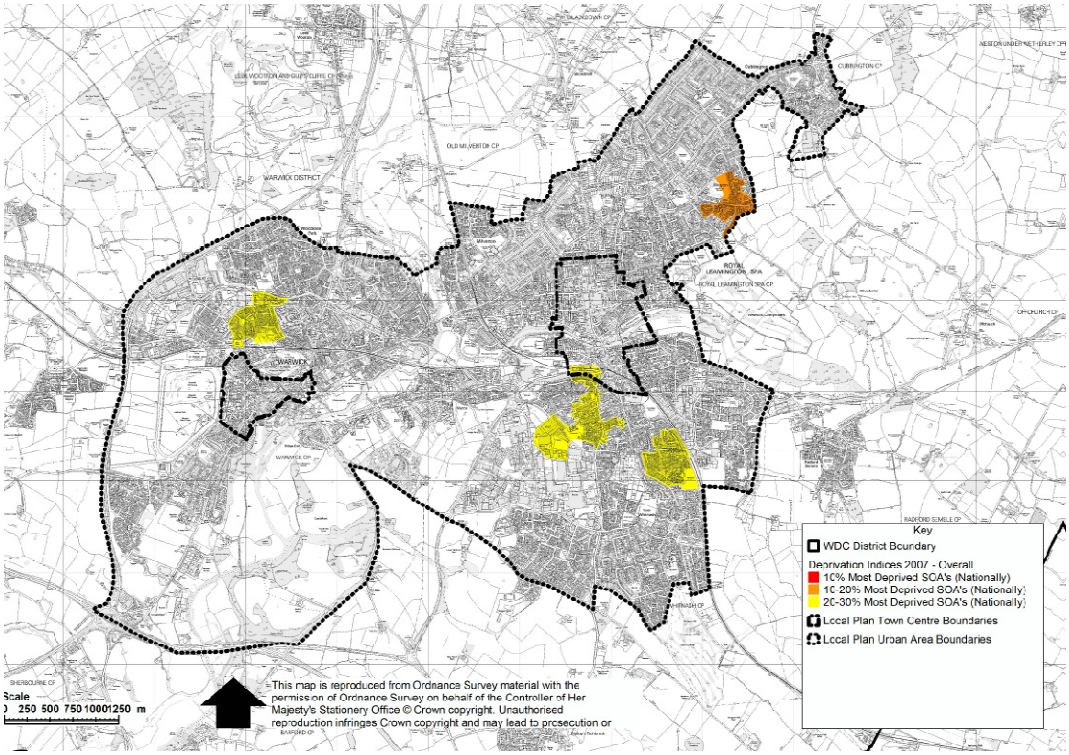
3.15 Sales values and land values vary substantially across Warwick District. The identification of the spatial extent of value geographies has been determined through analysis of Hometrack residential sales value data and HM Land Registry data and interpretation of this by DTZ and WDC. It was decided that the District would be divided into five market areas and in turn that each of these areas would be split into High, Medium and Low value areas to ensure a wide spread of site geographies and values were tested during the hypothetical analysis. Whilst there will always be variations and exceptions within areas, the broad areas are considered to be broadly representative of different housing characteristics, land values and house prices within Warwick District.

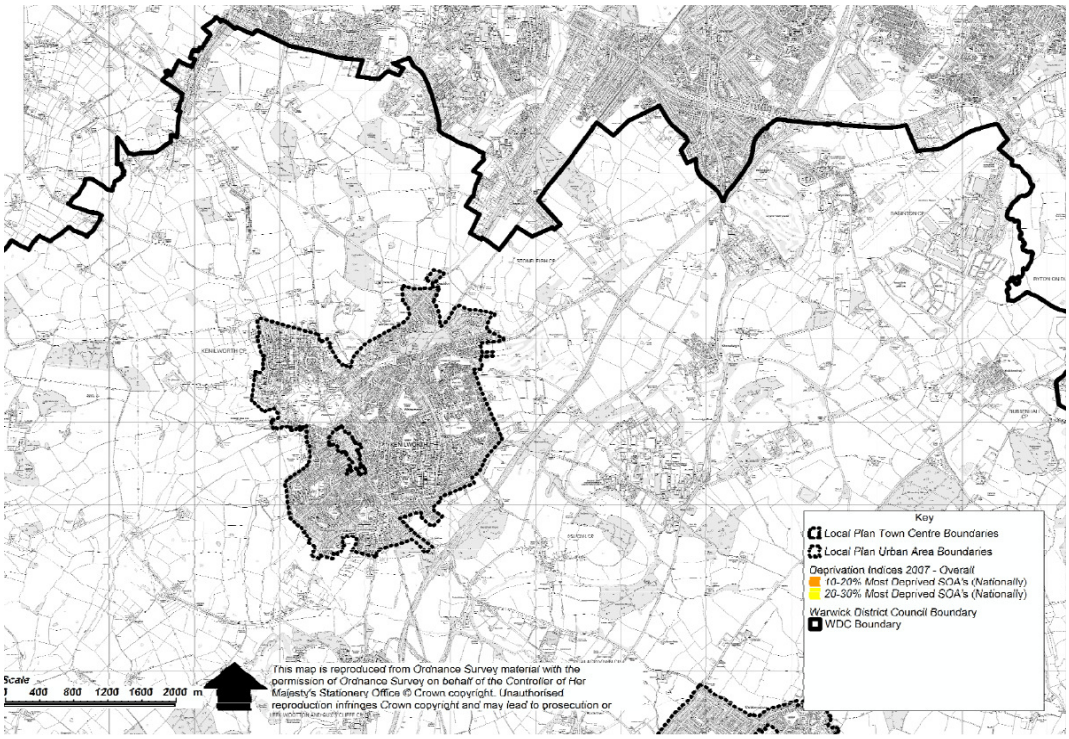
3.16 A list of each of the market areas tested in this study is provided below:

1. Town Centres
2. Suburban Areas
3. Rural Areas
4. Deprived Wards
5. Small Urban Extension Sites (200 units) – these sites will be analysed in smaller phases of 50 units.

3.17 For the reasons detailed in paragraph 3.15, these five areas provide the broad areas for modelling. Maps of each of these areas are shown below, with the exception of Small Urban Extension sites as the precise locations of these remain to be determined.

Figure 3.1 Maps of Market Areas used for this study





3.18 For each of the market areas, it was determined that a range of site sizes would be tested in order to ensure that a range of developments are analysed. Based on analysis of the SHLAA and consultation with WDC and its stakeholders, the following site sizes were agreed for each of the market areas.

Site Size - Rural Areas
Small = 0.25ha
Medium =0.5 ha
Large = 2ha
Site Size - Other Areas
Small = 1ha
Medium =2.5 ha
Large = 5ha
Urban Extension Sites = 100 to 300 units modelled in phases.

3.19 For each of the market areas a range of densities have been assessed. In urban areas, high and medium densities have been tested. In rural areas, medium and low densities have been tested. The density assumptions are expressed as dwellings per hectare (dph) as follows:

Density – Rural Areas
Low = 25 dph
Med = 33 dph
Density – Other Areas
Low = 30 dph
Med = 35 dph
High = 40 dph (except Town Centres which are modelled at 65 dph)

3.20 Taking into account all the above combinations (value, site size and density), a total number of 27 hypothetical sites were tested during this modelling, as shown in Figure 3.2 below.

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	Small			Medium			Large		
	High Density	**Medium Density**	**Low Density**	**High Density**	**Medium Density**	**Low Density**	**High Density**	**Medium Density**	**Low Density**
Town Centre	TCSH	TCSM	n/a	TCMH	TCMM	n/a	TCLH	TCLM	n/a
Suburban	n/a	SSM	SSL	n/a	SMM	SML	n/a	SLM	SLL
Deprived Wards	DWSH	DWSM	DWSS	DWMH	DWMM	DWML	DWLH	DWLM	DWLL
Rural	n/a	RSM	RSL	n/a	RMM	RML	n/a	n/a	n/a
Urban Extension	n/a	n/a	n/a	n/a	n/a	n/a	UELH	UELM	n/a

Sample Size - 27 Sites

TCSH
TC Town Centre
S Small
H High Density

Figure 3.2 Hypothetical Sites.

3.21 Each of these sites has been tested in high, medium and low value areas subsequently resulting in the modelling of 81 schemes (i.e. the 27 sample sites tested across 3 value bands specifically set for each market area). Once the hypothetical sites were decided upon, the other major inputs into the model are the assumptions around costs and values. Detailed work has been undertaken in respect of both of these aspects as outlined below.

Revenue (£ per sqft) by unit type, size and tenure

3.22 For the **market** housing, an average £ per sqft value is calculated for high, medium and low value areas within each of the outer market areas and set values in the other areas. In order to do this, each market area was given a Beacon Area, which would be the basis upon which research was undertaken to determine property value. For each of the Areas a review of both the Hometrack Data and Land Registry was undertaken in order to determine likely values for residential property in the market areas. The Hometrack Data represents a mix of new build and existing dwelling prices. DTZ's residential valuation team reviewed this data and adjusted the values according to valuation evidence and their experience of new build prices in each of the market areas. The results of this analysis were then drawn together to produce a list of revenues which were tested with Stakeholders. Property size assumptions were also presented and consulted upon with stakeholders. The Beacon Areas chosen for the Warwick District are as follows:

Town Centres – Lower Super Output Areas

Kenilworth TC: Area within Town Centre Boundary[4]

Leamington TC: Area within Town Centre Boundary[5]

Warwick TC: Area within Town Centre Boundary[6]

Suburbs

High Value: Kenilworth, Lower Level Super Output Area 001C

Mid Value: NE Leamington Lower Level Super Output Area 007E

Low value: Sydenham Lower Level Super Output Area 010D

Rural Areas

High Value: Area within built envelope of Lapworth

Mid Value: Area within built envelope of Radford Semele

Low Value: Area within built envelope of Bishops Tachbrook

Deprived Areas

High Value: Lower Level Super Output Area 013D

Med Value: Lower Level Super Output Area 013A

Low Value: Lower Level Super Output Area 006A

[4 5 6] As defined in Warwick District Local Plan 1996 - 2011

3.23 Following stakeholder consultation, the final values and property sizes used in the modelling are as follows:

Figure 3. 3 Property Values Used for Modelling

				Town Centre		
Unit Type	Value		Area sq ft	Values	£ psf	£psm
1 Bed Flat	High	Leamington Spa	500	£140,000	£280	£3,014
	Med	Warwick		£105,000	£210	£2,260
	Low	Kenilworth		£110,000	£220	£2,368
2 Bed Flat	High	Leamington Spa	650	£180,000	£277	£2,981
	Med	Warwick		£130,000	£200	£2,153
	Low	Kenilworth		£145,000	£223	£2,401
2 Bed House	High	Leamington Spa	700	£185,000	£264	£2,845
	Med	Warwick		£150,000	£214	£2,307
	Low	Kenilworth		£175,000	£250	£2,691
3 Bed House	High	Leamington Spa	950	£275,000	£289	£3,116
	Med	Warwick		£225,000	£237	£2,549
	Low	Kenilworth		£237,500	£250	£2,691
4 Bed House	High	Leamington Spa	1100	£340,000	£309	£3,327
	Med	Warwick		£300,000	£273	£2,936
	Low	Kenilworth		£275,000	£250	£2,691
5 Bed House	High	Leamington Spa	1500	£460,000	£307	£3,301
	Med	Warwick		£425,000	£283	£3,050
	Low	Kenilworth		£315,000	£210	£2,260

			Deprived Wards		
Unit Type	Value	Area sq ft	Values	£ psf	£psm
2 Bed Flat	High 13D Whitnash	650	£130,000	£200	£2,153
	Med (13A- south of L.Spa TC)		£120,000	£185	£1,987
	Low (6A - NE Leam)		£105,000	£162	£1,739
2 Bed House	High 13D Whitnash	700	£130,000	£186	£1,999
	Med (13A- south of L.Spa TC)		£125,000	£179	£1,922
	Low (6A - NE Leam)		£125,000	£179	£1,922
3 Bed House	High 13D Whitnash	950	£165,000	£174	£1,870
	Med (13A- south of L.Spa TC)		£160,000	£168	£1,813
	Low (6A - NE Leam)		£150,000	£158	£1,700
4 Bed House	High 13D Whitnash	1100	£185,000	£168	£1,810
	Med (13A- south of L.Spa TC)		£180,000	£164	£1,761
	Low (6A - NE Leam)		£180,000	£164	£1,761
5 Bed House	High 13D Whitnash	1500	£200,000	£133	£1,435
	Med (13A- south of L.Spa TC)		£200,000	£133	£1,435
	Low (6A - NE Leam)		£195,000	£130	£1,399

			Suburban		
Unit Type	Value	Area sq ft	Values	£ psf	£psm
1 Bed Flat	High Kenilworth (001C)	500		£0	£0
	Medium - NE Leamington (007E)		£105,000	£210	£2,260
	Low Sydeham (covering 10b,10D,		£105,000	£210	£2,260
2 Bed Flat	High Kenilworth (001C)	650	£140,000	£215	£2,318
	Medium - NE Leamington (007E)		£130,000	£200	£2,153
	Low Sydeham (covering 10B,10D,		£125,000	£192	£2,070
2 Bed House	High Kenilworth (001C)	700	£180,000	£257	£2,768
	Medium - NE Leamington (007E)		£170,000	£243	£2,614
	Low Sydeham (covering 10B,10D,		£150,000	£214	£2,307
3 Bed House	Kenilworth	950	£245,000	£258	£2,776
	NE Leamington (007E)		£210,000	£221	£2,379
	Low Sydeham (covering 10B,10D,		£170,000	£179	£1,926
4 Bed House	High Kenilworth (001C)	1100	£280,000	£255	£2,740
	Medium - NE Leamington (007E)		£240,000	£218	£2,349
	Low Sydeham (covering 10B,10D,		£180,000	£164	£1,761
5 Bed House	High Kenilworth (001C)	1500	£370,000	£247	£2,655
	Medium - NE Leamington (007E)		£300,000	£200	£2,153
	Low Sydeham (covering 10B,10D,		£220,000	£147	£1,579

			Rural		
Unit Type	Value	Area sq ft	Values	£ psf	£psm
2 Bed House	High - Lapworth	700	£205,000	£293	£3,152
	Mid - Radford Semele		£180,000	£257	£2,768
	Low - Bishops Tachbrook		£160,000	£229	£2,460
3 Bed House	High - Lapworth	950	£285,000	£300	£3,229
	Mid - Radford Semele		£250,000	£263	£2,833
	Low - Bishops Tachbrook		£225,000	£237	£2,549
4 Bed House	High - Lapworth	1100	£325,000	£295	£3,180
	Mid - Radford Semele		£280,000	£255	£2,740
	Low - Bishops Tachbrook		£250,000	£227	£2,446
5 Bed House	High - Lapworth	1500	£420,000	£280	£3,014
	Mid - Radford Semele		£350,000	£233	£2,512
	Low - Bishops Tachbrook		£295,000	£197	£2,117

Affordable Housing

3.24 For the revenue streams generated by the **affordable** housing, we have assumed a percentage of market value for each tenure type. Intermediate housing is calculated at 60% of market value and social rented at 35% of market value.

3.25 Affordable housing percentages of 0% to 50% have been modelled as follows:

- 0%
- 10%
- 20%
- 25%
- 30%
- 35%
- 40%
- 50%

3.26 The following tenure splits have been analysed:

- 50% Social Rented 50% Intermediate
- 66% Social Rented 34% Intermediate
- 80% Social Rented 20% Intermediate

Unit Area Assumptions

3.27 The **£** per square foot values (both market and affordable) are combined with assumptions on unit area sizes to generate total unit prices. The unit area assumptions, based upon DTZ's market knowledge are shown in Figure 3.4 below.

Figure 3.4 Property Areas (Net Sales Area)

Unit Type	Area sq ft	Area sq m
1 Bed Flat	600	56
2 Bed Flat	650	60
2 Bed House	700	65
3 Bed House	950	88
4 Bed House	1100	102
5 Bed House	1500	139

3.28 The property sizes illustrated above, are not divided into semi detached, detached and terrace stock and whilst it is acknowledge that these property types will vary in size the figures proposed are agreed to be an average area for new build properties across these property types dependent upon bedroom size.

Build Costs

3.29 We have obtained data from the Building Cost Information Service (BCIS) on average build costs (£ per sq ft) for the Warwickshire area. BCIS provide differential build cost values for new build and conversion and for different gross internal areas (GIA) per unit as calculated below.

3.30 However, costs from BCIS tend to be relatively low in comparison to the industry norm and a small number of low cost schemes can skew the data. Anecdotal evidence suggests that BCIS figures are mainly provided by social housing providers and contractors as private developers are less willing to provide confidential build cost advice which may also skew the figures. BCIS figures do not incorporate an allowance for externals and plot connections; typically 20% is added to make an allowance for this element. If we take the median value which equates to £68.53 per square feet and add 20% for plot externals and connections this gives a value of £82.23. For apartments, following the same principles and using the median value of £80.79 per square foot equates for £96.94 per square foot.

3.31 Based on DTZ's experience of valuing developments in Warwick District and across the Midlands and from conversations with national and regional house builders operating in the district, it was determined that build costs of £82 psf for houses and £100 psf for apartments were appropriate for use throughout this study. These costs are calculated on a Net Sales Area basis, and we have added £4,000 per unit to allow for the delivery of Code for Sustainable Homes level 3 and £7,500 per unit to allow for Code for Sustainable Homes level 4. These figures are based on the evidence provided in the CLG paper Code for Sustainable Homes: A Cost Review, March 2010 and our working knowledge of build costs from work undertaken in relation to scheme funding valuations.

3.32 It is acknowledged that for any particular scheme, build costs will be affected by site conditions, the configuration of the scheme and the target market at which it is aimed. Large schemes may achieve significant economies of scale and build costs will also be affected by costs of materials and fuel, and are also likely to reflect the level of the activity in the construction sector. However, for the purpose of this strategic assessment, it is necessary to use typical build costs.

Other Assumptions

3.33 The model incorporates a number of other assumptions which have been held constant for all aspects of the viability assessment and are based on DTZ's experience of valuing schemes in the local markets. These additional assumptions are as follows:

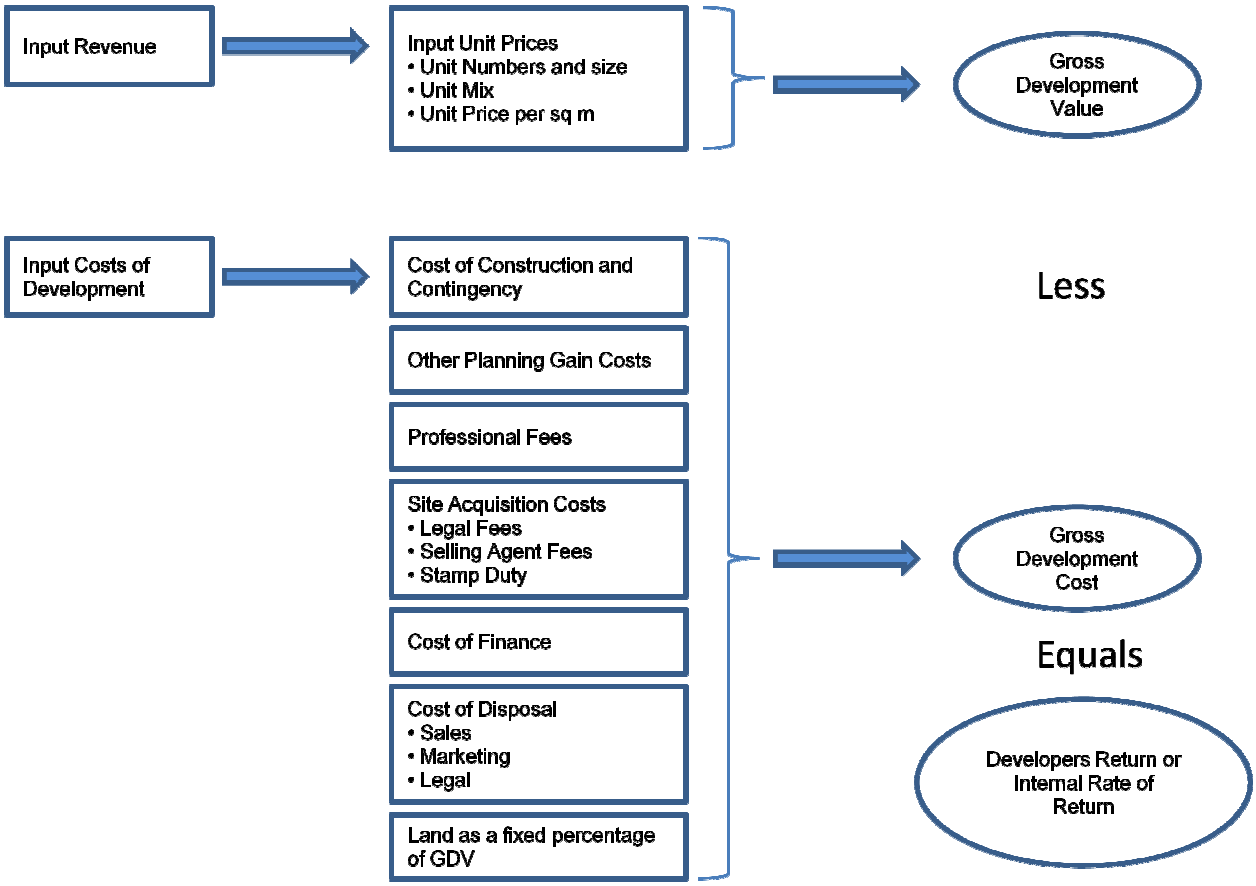
- All sites have planning permission and are ready to start on site immediately
- No abnormal development costs are included within the appraisals
- Cost of Finance – 7% of build costs
- Professional Fees – 6% of build costs
- Contingency – 5% of build costs
- Disposal costs including marketing and sales expenses for private units – 3% of Gross Development Value
- Site acquisition costs of 5.75% of land value (to include stamp duty)
- Revenue within the cashflow is net of residential marketing and agents fees
- Model assumes contractors prelims and insurance are accounted for within the residential build cost
- Model assumes affordable revenues are received in parallel with construction expenditure
- Marketing and sales fees are only applied to private residential sales
- Interest is calculated quarterly in arrears. It is assumed that profit is taken from the sites when the cash flow is positive.

Residual Land Values

3.34 Initial inputs into the model assume that 20% of GDV is the minimum value at which a land owner would release their site for residential developments. Therefore this has been set as a constant within the modelling.

3.35 By fixing the percentage of GDV which is attributed to land value, the traditional residual appraisal can be modified to test return as a measure of viability. This will produce the same results as determining residual land values and comparing these to Existing Use Value (EUV). An illustration of the calculations undertaken is provided below:

Figure 3.5 Calculations Undertaken in AHVA Model



3.36 The rate of return is therefore the variable element through which the AHVA has been undertaken. If the return does not meet the required targets (20% of GDV) then the site will not come forward for development, since it is more economic for the land to continue in its present use or be retained undeveloped until the market returns to former pricing levels and an appropriate profit can be generated.

3.37 Therefore, the maximum amount available for affordable housing within the assessment is based on the difference between a scheme being able to provide an appropriate return. If the return falls below the target then the scheme is declared marginally viable if within 3% (amber traffic light) or totally unviable (red traffic light).

3.38 Where land value is fixed as a percentage of GDV and a return of 20% GDV or higher is generated, an assessment of the actual land value on a £per acre basis has been undertaken to ensure that this is at a level which allows the site to come forward for residential development as opposed to an alternative use. In order to do this, alternative use values have been calculated across the district and averaged out at a value of £425,000 per acre. Therefore all appraisals are required to meet the minimum hurdle rate of £425,000 per acre before being deemed to be viable.

3.39 This approach will be explained in more detail in the results section of this report. It is however, important to consider that whilst alternative uses will be used as a benchmark for viability for the purpose of this exercise, a number of sites may not be suitable for alternative use development. For instance a green field site in suburban areas of the district is unlikely to be developed for commercial uses both due to planning constraints and a lack of commercial requirements for retail, office and industrial space in this area. In this scenario a sites alternative use value will be that of an agricultural use which will be in the region of £5,000 per acre and therefore the results of this study should be considered in this context also.

Sales Rates

3.40 Variations in sales rates impact on scheme viability. The more difficult a market environment, the less supply that can be absorbed and therefore the longer the disposal period. This impacts on scheme finances as a scheme's interest bearing balance takes longer to be offset by revenues streams from disposals (therefore interest payment costs rise and profitability is reduced). In the current market sales rates have slowed significantly and for the Baseline scenario, we are assuming 1.5 sales per month on small sites and 2 sales per month on larger sites.

3.41 In the Improved Market Scenario, we are assuming this increased to 2 sales per month on small sites and 2.5 sales per month on larger sites.

Section 106 Costs other than Affordable Housing

3.42 Most residential developments are not only expected to provide affordable housing as part of the Section 106 Agreement, but also to contribute to other costs imposed by the local authority on the development, such as highway works, provision of community facilities, education payments, etc. These represent an additional development cost imposed on the scheme and, therefore, need to be taken into account.

3.43 After consultation with the Local Authority and Stakeholders, an allowance of £6,650 per unit for S106 contributions has been made for each of the scenarios tested. This figure has been reached by determining the level of contribution which has been required on recently approved schemes in Warwick District.

Scope of the Study

3.44 It is important to appreciate that a strategic viability model, such as this is not designed to test the viability of specific individual sites. One of the features of residential development is that the character of sites and level of costs and revenues that apply to development on a specific site will vary. This should, however, be reflected in the price that is paid for the development land. Even so, costs and revenues are often not predictable, and assumptions about the future change in costs and revenues may be proved wrong, delivering returns which are above or below expectations.

3.45 This study cannot seek to encompass all the potential differences in individual site circumstances which affect viability. What it can, and does do, is provide a broad assessment of viability in the study areas. This is what is needed to inform affordable housing and other policies. Those policies will need to be sufficiently flexible to take into consideration changes in market contexts over the lifetime of the policy.

3.46 The agreed valuation date of June 2010 is significant to the viability assessment. The property market has recently experienced unprecedented decline and turmoil due to difficulties to financial liquidity and a downturn in global economies due to the effects of the credit crunch. As a result, residual land values have fallen significantly from their peak in early 2007 which places substantial pressure on the viability of residential developments. There is an expectation that the market will recover in the longer term but the timescales for recovery remain uncertain. This downturn in residual land value will obviously have a considerable impact on the viability of the proposed affordable housing policy. Therefore as part of the viability modelling, different scenarios have been modelled around the Baseline Position to take account of peaks and troughs in the market which will occur over the life of the policy and core strategy.

3.47 The results of each of the scenarios tested can be seen in the following sections of this report. The tables presented in the main body of the report show the summary analysis of the results of the modelling. Analysis of the individual areas across the densities and the outputs from every scenarios tested can be seen in Appendix B.

4.0 Town Centres

4.1 The Town Centre areas of Warwick District are identified as Warwick, Leamington Spa and Kenilworth. Each of these areas has been tested at the Baseline, Mid Point and Improved Market Scenario.

4.2 Each of these town centres have been tested to determine what level of affordable housing can be viably delivered and then a summary position for the whole of the Town Centres Housing Market Area has been considered. Three scenarios have been tested and the results of each of these scenarios is recorded below. Detailed results tables can be seen in Appendix B which provides more information than the summary provided below.

4.3 In total 18 sites have been tested in each scenario. Viability is measured using a traffic light indicator system. Where a site is modelled and it produces a positive return of 20% or above the site is given a green light (wholly viable). Where the assumptions outlined in section 3 above result in a return of 17-19.9% this is given an amber light (marginally viable). Where the assumptions inputted into the model yield a return of less than 17% then the site is given a red light (unviable). The results of each of the 18 sites are combined in order to determine overall viability.

4.4 In order to determine the overall viability green and amber lights are combined. This is due to the fact that in certain circumstances a developer may deliver a scheme for less than a 20% return and therefore by merging the wholly viable and marginally viable schemes an overall picture of viability can be understood. Two measures are provided in this study. The first is the point at which the majority of sites (50% or more) are viable. The second measure is the point at which any viability (1 or more sites) can be seen and recording will only stop when all red lights are seen.

4.5 There is a significant identified need for affordable housing across Warwick District and the Council has a statutory obligation to deliver housing for those most in need. Therefore consideration needs to be given to whether a target for affordable housing should be set at a percentage where less than the majority of sites are viable. Even if one site tested is viable this could be regarded as a viable position to proceed. The results below therefore indicate the level of viability deliverable in each of the scenarios tested. At the end of this chapter summary results are presented demonstrating both viability on the majority of sites tested and viability where one or more site yields a green or amber light.

Baseline Position

4.6 The Baseline results for the Town Centres market area show that WDC's current policy position of 40% affordable housing; split 80% social rented, 20% intermediate, would be deliverable on 33% of the sites tested. It would be wholly viable (green light- generating a return of 20% of GDV or above) on 28% of the sites tested, and marginally viable (amber light - generating a return lower than 20% but higher than 17%) on 5% of the schemes.

4.7 A level of 10% affordable housing is fully viable on all sites at all tenure splits tested. A higher target of 50% affordable housing was also tested and is deliverable on 11% to 22% of the sites tested dependent upon the tenure split.

4.8 If we split the town centres into individual settlements the results are slightly different. Leamington Spa has the highest revenues of the three town centres tested and therefore the viability results seen here are far stronger here than in the other two centres. When testing 0-35% affordable housing percentages 100% of all sites tested were wholly viable (green light). Only at 40% affordable housing split 80% social rented 20% intermediate tenure do amber lights start to appear but overall viability is not affected. At low levels of social rented housing, 50% affordable housing could be delivered in Leamington Spa. The council's current policy position is deliverable on 100% of the sites tested with 83% showing complete viability (green light).

4.9 In Warwick, viability is not as strong as Leamington Spa. The Council's current policy position of 40% affordable housing is not deliverable in this area at the Baseline Position and a figure of 20-25% would be more viable. This area is more vulnerable to tenure change than in other town centres and the impact of introducing higher levels of social rented tenure is more marked.

4.10 In Kenilworth, a similar viability picture to that of Warwick is seen. Although levels of viability are higher here than in Warwick, Kenilworth schemes show lower proportions of viable schemes than Leamington Spa. At WDC's current policy position of 40% affordable housing; split 80% Social Rented 20% Intermediate; no schemes are viable. Only 33% of sites tested would have marginal viability (amber light) at 40% affordable housing, with a tenure split of 50% Social Rented 50% Intermediate.

Mid Point Market Position

4.11 In the Mid Market Position revenues are increased by 10% from the Baseline Position, build periods are reduced and an adjustment for higher CSH costs are made. Given the change in assumptions, it is clear that in the Mid Market Position schemes can more viably deliver affordable housing. The local authority target of 40% affordable housing is more deliverable in these market circumstances and indeed 50% affordable housing is deliverable on 33-45% of the sites tested dependent upon tenure splits.

4.12 In Leamington Spa, as expected given the results of the Baseline Position, all scenarios tested in the Mid Market Position for Leamington Spa were viable. The local authority's target of 40% affordable housing with a tenure split of 80% Social Rented and 20% Intermediate is deliverable on all sites tested in this scenario. 50% affordable housing was also deliverable.

4.13 In Warwick, all but three affordable housing percentages tested yielded results of 100% of the sites tested being viable. With higher affordable housing percentages where 80% social rented housing is introduced, a number of schemes become unviable (red light). The difference between the results here and those for Leamington Spa is that a larger proportion of sites yield an amber light where only marginal viability can be seen. In Leamington Spa no sites were amber. If we were to consider green lights only in this scenario an appropriate level of affordable housing would be 35% affordable housing split 50% Intermediate:50% Social Rented.

4.14 Results in Kenilworth for this Mid Market Scenario again show strong levels of viability and whilst the Council's current policy position of 40% affordable housing split 80% Social Rented:20% Intermediate is not wholly viable on all sites, it does yield 67% wholly viable sites and 33% marginally viable and indeed on some of the sites tested up to 50% affordable housing was deliverable against the assumptions in this scenario.

Improved Market Position

4.15 In this scenario revenues have been inflated by 20% from the Baseline Position and build rates have been doubled so developments now take half the time to complete when compared to the Baseline Position and adjustment as also been made for increased CSH levels. The results for the Town Centres as a whole show strong viability in this scenario. The council's current policy position of 80% Social Rented:20% Intermediate would be deliverable in this scenario. Indeed 50% affordable housing would be deliverable on the majority of the sites tested.

4.16 In Leamington Spa and Warwick, all sites tested generated 100% green lights (complete viability) for each of the percentages of affordable housing and tenure splits tested. In Kenilworth more amber lights were seen at 40% affordable housing with tenure splits of 80% social rented:20% intermediate.

Summary

4.17 The following table sets out the level of affordable housing at which schemes would become viable assuming a viability cut-off-point of 50% of schemes:

Market Area	Baseline Market Position	Mid Point Market Position	Improved Market Position
Town Centre	35% Affordable Housing (50% SR/ 50% Int)	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)
Leamington Spa	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)
Warwick	25% Affordable Housing (50% SR/ 50% Int)	40% Affordable Housing (65% SR/ 35% Int)	40% Affordable Housing (80% SR/ 20% Int)
Kenilworth	35% Affordable Housing (50% SR/ 50% Int)	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)

4.18 These summary results have been determined by using a cut off point (tipping point) where 50% (or above) of the sites tested must be viable in order for that percentage of affordable housing to be considered deliverable, as this is the majority of the sites. However, in areas of high housing need, consideration of a lower cut off (tipping) point is required to be analysed. If we consider the result where viability is recorded if it is just 1% of the sites tested show a green or amber light, this changes the results as follows:

Market Area	Baseline Market Position	Mid Point Market Position	Improved Market Position
Town Centre	50% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)
Leamington Spa	50% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)
Warwick	40% Affordable Housing (65% SR/ 35% Int)	50% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)
Kenilworth	40% Affordable Housing (50% SR/ 50% Int)	50% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)

4.19 It should be noted at this point that this is the level of viability which is deliverable assuming no abnormal development costs or allowance for site preparation and demolition. Both of these elements have the potential to reduce the delivery of affordable housing, and on any site specific negotiations both of these factors will need to be taken into account.

5.0 Suburban

5.1 The Suburban areas of Warwick District are identified as the built up areas of the towns outside of the town centres. Each of the Suburban areas have been split into High, Medium and Low value areas with Beacon Areas established in which market research into property prices have been undertaken (see section 2). Each of these areas has been tested at the Baseline, Mid Market and Improved Market Scenario.

5.2 The Suburban areas have been tested to determine what level of affordable housing can be viably delivered. Three scenarios have been tested and the results of each of these scenarios are recorded in summary below. Detailed results tables can be seen in Appendix 2.

5.3 In total 18 sites have been tested in each scenario. Viability is measured using a traffic light indicator system. Where a site is modelled and it produces a positive return of 20% or above the site is given a green light (wholly viable). Where the assumptions outlined in section 3 above result in a return of 17-19.9% this is given an amber light (marginally viable). Where the assumptions inputted into the model yield a return of less than 17% then the site is given a red light (unviable). The results of each of the 18 sites are combined in order to determine overall viability.

5.4 In order to determine the overall viability green and amber lights are combined. This is due to the fact that in certain circumstances a developer may deliver a scheme for less than a 20% return and therefore by merging the wholly viable and marginally viable schemes an overall picture of viability can be understood. Two measures are provided in this study. The first is the point at which the majority of sites 50% are viable and the point at which viability stops (all red lights).

5.5 There is a significant identified need for affordable housing across Warwick District and the Council has a statutory obligation to deliver housing for those most in need .Therefore consideration needs to be given as to whether a target for affordable housing should be set at a percentage where less than the majority is viable. Even if one site tested is viable this could be regarded as a viable position to proceed. The results below therefore indicate the level of viability deliverable in each of the scenarios tested, at the end of this chapter summary results are presented demonstrating both viability on the majority of sites tested and viability where one or more site yields a green or amber light.

Baseline Position

5.6 The Baseline results for the Suburban Areas, taken as one market area, show that the Council's current policy position of 40% affordable housing split 80% social rented:20% intermediate would not be deliverable on any of the sites tested. It would still only be viable on 11% of the sites tested if the proportion of affordable housing provided as Social Rent was reduced to 50%. Looking at the overall average none of the affordable housing percentages tested result in the majority of sites (over 50%) generating a viable return.

5.7 In High value suburban areas delivery of up to 30% affordable housing was viable on the majority of sites, in Medium value areas this fell to 20% and in the low value areas of the suburbs no viability was seen. Viability across the Suburban areas therefore is much more variable than that seen in the Town Centres, and this is reflective of the more diverse character of the suburban neighbourhoods. Results for the High, Medium and Low value areas can be seen in Appendix B.

Mid Point Market Position

5.8 In the Mid Point Market Position, revenues are increased by 10% from the Baseline Position and build periods are reduced and adjustment for higher CSH costs made. The results show a slight improvement from the Baseline Position. The Council's current policy position of 40% affordable housing split 80% Social Rented:20% Intermediate can now be achieved on 22% of the sites tested (compared to no sites in the Baseline). A level of 25% affordable housing can be achieved on the majority (more than 50%) of the sites tested in this market. In the high value areas, 40% was deliverable on 67% of the sites tested. However, in the medium and low value areas this level of affordable housing could not be delivered. Results for the High, Medium and Low value areas can be seen in Appendix B.

Improved Market

5.9 In this scenario revenues have been inflated by 20% from the Baseline Position and build rates have been doubled, so developments now take half the time to complete when compared to the Baseline. An adjustment has also been made for increased CSH costs. In this scenario, the Council's current policy position could be delivered on 39% of the sites tested, with an achievement rate of 67% of sites in high value areas (against 30% in the Mid Point Market Scenario). Viable sites in this market scenario now also include some in low value areas, where 10% affordable housing was viable on the majority of sites, and medium value areas where.40% affordable housing was viable.

Summary

5.10 The following table sets out the level of affordable housing at which schemes would become viable assuming a viability cut-off-point of 50% of schemes:

:

Market Area	Baseline Market Position	Mid Point Market Position	Improved Market Position
Overall	20% Affordable Housing (80% SR/20% Int)	25% Affordable Housing (65% SR/35% Int)	35% Affordable Housing (80% SR/20% Int)
High Value Areas	30% Affordable Housing (80% SR/20% Int)	40% Affordable Housing (80% SR/20% Int)	40% Affordable Housing (80% SR/20% Int)
Medium Value Areas	0% Affordable Housing	30% Affordable Housing (50% SR/50% Int)	40% Affordable Housing (80% SR/20% Int)
Low Value Areas	0% Affordable Housing	0% Affordable Housing	10% Affordable Housing (80% SR/20% Int)

5.11 These summary results have been determined by using a cut off point (tipping point) where 50% (or above) of the sites tested must be viable in order for that percentage of affordable housing to be considered deliverable, as this is the majority of the sites. However, in areas of high housing need, consideration of a lower cut off (tipping) point is required to be analysed. If we consider the result where viability is recorded if just 1% of the sites tested show a green or amber light, this changes the results as follows:

Market Area	Baseline Market Position	Mid Point Market Position	Improved Market Position
Overall	40% Affordable Housing (65% SR/ 35% Int)	40% Affordable Housing (65% SR/ 35% Int)	35% Affordable Housing (80% SR/ 20% Int)
High Value Areas	40% Affordable Housing (65% SR/ 35% Int)	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)
Medium Value Areas	25% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (65% SR/ 35% Int)	40% Affordable Housing (80% SR/ 20% Int)
Low Value Areas	0% Affordable Housing	10% Affordable Housing (80% SR/ 20% Int)	30% Affordable Housing (80% SR/ 20% Int)

5.12 It should be noted at this point that this is level of viability is deliverable assuming no abnormal development costs or allowance for site preparation and demolition. Both of these elements have the potential to reduce the delivery of affordable housing, and on any site specific negotiations both of these factors will need to be taken into account.

6.0 Deprived Areas

6.1 The Deprived areas of Warwick District are identified as those areas which have the greatest levels of socio-economic deprivation in the District. They are typically located on the outskirts of the town centre and bordering the suburban areas. These areas consist of Census Output Areas which are amongst the worst 30% nationally in the English Indices of Deprivation 2007 (CLG). Each of these areas has been tested at the Baseline, Mid Market and Improved Market Scenario.

6.2 In total 18 sites have been tested in each scenario. Viability is measured using a traffic light indicator system. Where a site is modelled and it produces a positive return of 20% or above the site is given a green light (wholly viable). Where the assumptions outlined in section 3 above result in a return of 17-19.9% this is given an amber light (marginally viable). Where the assumptions inputted into the model yield a return of less than 17% then the site is given a red light (unviable). The results of each of the 18 sites are combined in order to determine overall viability.

6.3 In order to determine the overall viability green and amber lights are combined. This is due to the fact that in certain circumstances a developer may deliver a scheme for less than a 20% return and therefore by merging the wholly viable and marginally viable schemes an overall picture of viability can be understood. Two measures are provided in this study. The first is the point at which the majority of sites 50% are viable and the point at which viability stops (all red lights).

6.4 There is a significant identified need for affordable housing across Warwick District and the Council has a statutory obligation to deliver housing for those most in need. Therefore consideration needs to be given as to whether a target for affordable housing should be set at a percentage where less than the majority is viable. Even if one site tested is viable this could be regarded as a viable position to proceed. The results below therefore indicate the level of viability deliverable in each of the scenarios tested, at the end of this chapter summary results are presented demonstrating both viability on the majority of sites tested and viability where one or more site yields a green or amber light.

Baseline Position

6.5 The Baseline results for the Deprived Areas show that no affordable housing in these areas is deliverable. The main reason for this is that house prices in these areas are considerably lower than other areas of the district and not at a level at which housing delivery can be sustained at the Baseline Position. Some of these areas have high levels of rented housing and low turnover of owner occupation, so property prices are difficult to accurately calculate. Parts of these areas are showing signs of housing market failure and decline and may be in need of intervention in order to deliver development.

Mid Point Market Position

6.6 In the Mid Point Market Position, revenues are increased by 10% from the Baseline Position and build periods are reduced and adjustment for higher CSH costs made. The position seen in the Baseline scenario is replicated in the Mid Market Position with little deliverability or viability in this scenario. Again, all scenarios recorded 100% red lights.

Improved Market Position

6.7 In this scenario revenues have been inflated by 20% from the Baseline Position and build rates have been doubled, so developments now take half the time to complete when compared to the Baseline. An adjustment has also been made for increased CSH costs. In the Improved Market Position, viability begins to become apparent in these areas. However, the Council's current policy position of 40% affordable housing is not deliverable on any of the sites tested in this market area. The highest level of viability seen is 10% delivered in a tenure split of 80% social rented and 20% intermediate tenure. None of the scenarios tested met the hurdle rate of 50% (a majority) of sites tested and therefore when measured on this basis the summary will record no viability in this area.

Summary

6.8 The following table sets out the level of affordable housing at which schemes would become viable assuming a viability cut-off-point of 50% of schemes:

Market Area	Baseline Market Position	Mid Point Market Position	Improved Market Position
Overall	0% Affordable Housing	0% Affordable Housing	0% Affordable Housing
High Value Areas	0% Affordable Housing	0% Affordable Housing	0% Affordable Housing
Medium Value Areas	0% Affordable Housing	0% Affordable Housing	0% Affordable Housing
Low Value Areas	0% Affordable Housing	0% Affordable Housing	0% Affordable Housing

6.9 These summary results have been determined by using a cut off point (tipping point) where 50% (or above) of the sites tested must be viable in order for that percentage of affordable housing to be considered deliverable. However, in areas of high housing need, consideration of a lower cut off (tipping) point is required to be analysed. If we consider the results where just 1% of the sites tested show a green or amber light, this changes the results as follows:

Market Area	Baseline Market Position	Mid (Point) Position	Improved Market Position
Overall	0% Affordable Housing	0% Affordable Housing	10% Affordable Housing (80% SR/ 20% Int)
High Value Areas	0% Affordable Housing	0% Affordable Housing	10% Affordable Housing (80% SR/ 20% Int)
Medium Value Areas	0% Affordable Housing	0% Affordable Housing	0% Affordable Housing
Low Value Areas	0% Affordable Housing	0% Affordable Housing	0% Affordable Housing

6.10 It should be noted at this point that this is a level of viability which is deliverable assuming no abnormal development costs or allowance for site preparation and demolition. Both of these elements have the potential to reduce the delivery of affordable housing, and on any site specific negotiations both of these factors will need to be taken into account..

7.0 Rural Areas

7.1 The Rural areas of Warwick District constitute the largest geographical area of the District. The rural areas have been split into High, Medium and Low value areas with Beacon Areas established upon which market research into property prices has been undertaken (see section 2). The Rural area has been tested at the Baseline, Mid Point Market and Improved Market Scenario. Full results can be seen in Appendix B, however a summary of findings under each market scenario is provided below.

7.2 In total 18 sites have been tested in each scenario. Viability is measured using a traffic light indicator system. Where a site is modelled and it produces a positive return of 20% or above the site is given a green light (wholly viable). Where the assumptions outlined in section 3 above result in a return of 17-19.9% this is given an amber light (marginally viable). Where the assumptions inputted into the model yield a return of less than 17% then the site is given a red light (unviable). The results of each of the 18 sites are combined in order to determine overall viability.

7.3 In order to determine the overall viability green and amber lights are combined. This is due to the fact that in certain circumstances a developer may deliver a scheme for less than a 20% return and therefore by merging the wholly viable and marginally viable schemes an overall picture of viability can be understood. Two measures are provided in this study. The first is the point at which the majority of sites 50% are viable and the point at which viability stops (all red lights).

7.4 There is a significant identified need for affordable housing across the Warwick District and the Council has a statutory obligation to deliver housing for those most in need. Therefore consideration needs to be given to whether a target for affordable housing should be set at a percentage where less than the majority is viable. Even if one site tested is viable this could be regarded as a viable position to proceed. The results below therefore indicate the level of viability deliverable in each of the scenarios tested, and at the end of this chapter summary results are presented demonstrating both viability on the majority of sites tested and viability where one or more site yields a green or amber light.

Baseline Position

7.5 The Baseline results for the Rural Areas shows that the Council's current policy position of 40% split 80% social rented, 20% intermediate would be viable on 39% of the sites tested. The majority of the sites (50%) are capable of delivering 35% affordable housing split 50% social rented and 50% intermediate tenure.

7.6 In high value areas of the rural market viability of up to 40% affordable housing was seen. In medium value areas this fell to 35% and in the low value areas 30% affordable housing was seen. Results for the high, medium and low value areas can be seen in Appendix B.

Mid Point Market

7.7 In the Mid Point Market scenario, revenues are increased by 10% from the Baseline Position and build periods are reduced and an adjustment made for higher CSH Level costs. This results in a slight improvement from the Baseline Position. The Council's current policy position of 40% affordable housing split 80% Social Rented/20% Intermediate can now be achieved on 67% of the sites tested. In the high value areas, the Council's current policy position was deliverable on 100% of the sites tested. In the medium value areas the Council's current policy position could be delivered on 87% of the sites tested, and in the low value areas 17% of the sites tested delivered a viable result. Results for the high, medium and low value areas can be seen in Appendix B.

Improved Market

7.8 In this scenario revenues have been inflated by 20% from the Baseline figures and build rates have been doubled so developments now take half the time to complete when compared to the Baseline. An adjustment has also been made for increased CSH costs. These changes resulted in the Council's current policy position being delivered on 89% of the sites tested. In high value areas this figure increased and the current policy position could be delivered on 83% of the sites in the Improved Market Scenario. Full results for each of the scenarios tested can be seen in Appendix B.

7.9 As 40% affordable housing is deliverable in a number of the scenarios tested, WDC requested that DTZ consider the viability of the sites at a requirement for 50% affordable housing. The results can be seen in Appendix B, and have been reflected in the summary tables below to show where greater that 40% affordable housing is deliverable.

Summary

7.10 The summary position for the Rural Areas is as follows:

Market Area	Baseline Market Position	Mid Point Market Position	Improved Market Position
Overall	35% Affordable Housing (50% SR/ 50% Int)	40% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)
High Value Areas	50% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)
Medium Value Areas	40% Affordable Housing (50% SR/ 50% Int)	50% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)
Low Value Areas	10% Affordable Housing (65% SR/ 35% Int)	40% Affordable Housing (50% SR/ 50% Int)	50% Affordable Housing (80% SR/ 20% Int)

7.11 These summary results have been determined by using a cut off point (tipping point) where 50% (or above) of the sites tested must be viable in order for that percentage of affordable housing to be considered deliverable, as this is the majority of the sites. However, in areas of high housing need, consideration of a lower cut off (tipping) point is required to be analysed. If we consider the result where viability is recorded if it is just 1% of the sites tested show a green or amber light, this changes the results as follows:

Market Area	Baseline Market Position	Mid (Point) Position	Improved Market Position
Overall	50% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)
High Value Areas	50% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)
Medium Value Areas	50% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)
Low Value Areas	30% Affordable Housing (50% SR/ 50% Int)	50% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)

7.12 It should be noted at this point that this is a level of viability which is deliverable assuming no abnormal development costs or allowance for site preparation and demolition. Both of these elements have the potential to reduce the delivery of affordable housing, and on any site specific negotiations both of these factors will need to be taken into account..

8.0 Urban Extension Sites

8.1 Warwick District Council has produced Strategic Housing Land Availability Assessment which assess the suitability for housing of a number of sites including some urban extension sites.. In order to consider the viability and deliverability of the smaller urban extension sites additional analysis has been undertaken. Rather than considering each individual site in isolation, the hypothetical approach taken in the assessment of viability of other areas has been continued and the sites tested against a range of set assumptions.

8.2 As the Urban Extension Sites neighbour the Suburban areas of the District a number of the assumptions have remained the same. However, the area has not been split into high, medium and low value areas but rather a blended rate has been selected as it is anticipated the Urban Extension Sites will be market making and therefore perform in a similar way across the District. These sites are felt to be market making as there is currently little development in this area against which to benchmark sales revenues. A new development of this scale will create its own market and revenues will be achieved based on the quality, type and mix of product delivered on these sites. Given the ability of the Urban Extension sites to deliver high numbers of new homes, the first phases of these developments only have been considered during this analysis due to the length of time involved with the delivery of these sites and the uncertainty in how the market will perform. We would expect a reassessment of viability to be undertaken part way through the development of these schemes.

8.3 In total 4 sites have been tested in each scenario. Viability is measured using a traffic light indicator system. Where a site is modelled and it produces a positive return of 20% or above the site is given a green light (wholly viable). Where the assumptions outlined in section 3 above result in a return of 17-19.9% this is given an amber light (marginally viable). Where the assumptions inputted into the model yield a return of less than 17% then the site is given a red light (unviable). The results of each of the 18 sites are combined in order to determine overall viability.

8.4 In order to determine the overall viability green and amber lights are combined. This is due to the fact that in certain circumstances a developer may deliver a scheme for less than a 20% return and therefore by merging the wholly viable and marginally viable schemes an overall picture of viability can be understood. Two measures are provided in this study. The first is the point at which the majority of sites (50% or more) are viable and the second is the point at which viability stops (all red lights).

8.5 There is a significant identified need for affordable housing across Warwick District and the Council has a statutory obligation to deliver housing for those most in need. Therefore consideration needs to be given as to whether a target for affordable housing should be set at a percentage where less than the majority is viable. Even if one site tested is viable this could be regarded as a viable position to proceed. The results below therefore indicate the level of viability deliverable in each of the scenarios tested, and at the end of this chapter summary results are presented demonstrating both viability on the majority of sites tested and viability where one or more site yields a green or amber light.

Baseline Position

8.6 The Baseline results for the Urban Extension Sites as a whole market area show that the Council's current policy position of 40% affordable housing split 80% social rented, 20% intermediate would not be deliverable on any of the sites tested. The highest percentage of affordable housing to receive viable results was 25%.

Mid Point Market

8.7 In the Mid Market Position, revenues are increased by 10% from the Baseline Position, build periods are reduced and an allowance made for higher CSH costs. The results show a variance from the Baseline Position with a slight improvement. The Council's current policy position of 40% affordable housing split 80% Social Rented/20% Intermediate can now be achieved on 18% of the sites tested and 30% affordable housing can be achieved on the majority (more than 50%) of the sites tested in this market scenario.

Improved Market

8.8 In this scenario revenues have been inflated by 20% from the Baseline figures and build rates have been doubled so developments now take half the time to complete when compared to the Baseline rates. An allowance has also been made for increased CSH costs. In this scenario, the Council's current policy position could be delivered on 29% of the sites tested.

Summary

8.9 The summary position for the Urban Extension Sites is as follows:

Market Area	Baseline Market Position	Mid (Point) Position	Improved Market Position
Urban Extension Sites	0% Affordable Housing	30% Affordable Housing (50% SR/ 50% Int)	40% Affordable Housing (80% SR/ 20% Int)

8.10 These summary results have been determined by using a cut off point (tipping point) where 50% (or above) of the sites tested must be viable in order for that percentage of affordable housing to be considered deliverable, as this is the majority of the sites. However, in areas of high housing need, consideration of a lower cut off (tipping) point is required to be analysed. If we consider the result where viability is recorded if just 1% of the sites tested show a green or amber light, this changes the results as follows:

Market Area	Baseline Market Position	Mid Point Market Position	Improved Market Position
Urban Extension Sites	25% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (65% SR/ 35% Int)	50% Affordable Housing (80% SR/ 20% Int)

8.11 It should be noted at this point that this is a level of viability which is deliverable assuming no abnormal development costs or allowance for site preparation and demolition. Both of these elements have the potential to reduce the delivery of affordable housing, and on any site specific negotiations both of these factors will need to be taken into account.

9.0 Threshold Analysis

9.1 Warwick District Council's current policy position requires affordable housing to be delivered on sites over 10 units or 0.25 hectares in the urban areas and on sites over 3 units in the rural areas. The purpose of this section is to determine if these are appropriate thresholds for the District based on the results of this assessment, whether lower thresholds would deliver a greater supply of housing or indeed whether higher thresholds in line with the PPS3 suggestion of 15 units would be more appropriate.

9.2 Whether a threshold is appropriate depends on a number of considerations:

- First it is appropriate to consider the relevant planning context, in this case the guidance contained in PPS3
- Second, it is necessary to consider the viability of the proposed threshold in terms of:
  - Whether schemes just under the threshold could contribute affordable housing
  - Whether schemes well below the threshold could contribute affordable housing
- Third, the practicality of the proposed threshold needs to be examined, in terms of:
  - The administration involved in seeking a contribution for schemes below this threshold, and whether this would deliver a significant amount of affordable housing without other adverse consequences.

9.3 This section is structured around examination of each of these topics. It follows on from the previous analysis. In order to soundly judge the effect of varying the affordable housing threshold on viability, the analysis in this section of the report focuses specifically on sites deemed to be viable at the Baseline only; as the Baseline analysis is based on current[7] and agreed sales values, rather than a projected market scenario as is the case for the mid market values.This distinction is important, as any departure from the suggested advice of PPS 3, which a lowering of the threshold would represent, requires to be based on robust market evidence[8] . These sites are then monitored to see what impact a smaller threshold has on affordable housing delivery. Smaller sites than those tested above are also considered in order to see the threshold tipping points. The threshold analysis explores the practical

[7] As of the baseline period - Summer 2010

[8] Clearly, elsewhere in this report, recommendations regarding percentages of affordable housing have been based on future market positions, as the state of the market at the baseline position is generally considered to be unsustainable . Notwithstanding this, actual affordable housing contributions will be considered on a site by site basis. The situation is different for site thresholds, as any change in policy has an absolute effect of bringing into the "affordable housing net" sites previously outside of such consideration.

considerations of setting an appropriate threshold; as well as providing a more detailed examination of the implications for smaller schemes of the proposed threshold.

Planning Policy Context

9.4 PPS 3 provides national guidance on the appropriate threshold at which affordable housing policies should apply. The current guidance indicates that the norm in terms of affordable housing thresholds should be set at schemes with at least 15 dwellings. However, PPS3 also states that *'Local Planning Authorities can set lower minimum targets, where viable and practical'.*

DTZ Assessment of Viability and Thresholds

9.5 DTZ has investigated the threshold issue through the Baseline viability model used for this study. The approach taken reflects the broad approach taken in this study to modelling viability. The approach adopted is as follows:

- The focus is to use the assumptions used in the Baseline position to assess whether the delivery of affordable housing units is viable on smaller schemes as the threshold is reduced
- This will enable analysis to determine whether a sliding scale of percentage requirements for affordable housing is appropriate on smaller schemes, with smaller schemes expected to contribute a smaller proportion of affordable housing than larger schemes.
- Viability is assessed in the same way as previously, undertaken by assessing the return from the development and comparing the residual land values of those which are viable against alternative use values.

9.6 The bespoke models for each of the areas have been updated to include an assessment of schemes where the threshold for affordable housing is 1 unit through to 15 units, and the results for each market areas are presented below.

9.7 When considering the results it is essential to consider the impact of different affordable housing percentages on actual units delivered. When testing a small site the difference in terms of number of units delivered may not vary with a change in percentage as outlined below:

Number of Units		3
AH Percentage	Number of AH Units	Number of Units to be Provided
0%	0	0
20%	0.6	1
30%	0.9	1
40%	1.2	1

Number of Units		5
AH Percentage	Number of AH Units	Number of Units to be Provided
0%	0	0
20%	1	1
30%	1.5	2
40%	2	2

Number of Units		10
AH Percentage	Number of AH Units	Number of Units to be Provided
0%	0	0
20%	2	2
30%	3	3
40%	4	4

Number of Units		15
AH Percentage	Number of AH Units	Number of Units to be Provided
0%	0	0
20%	3	3
30%	4.5	5
40%	6	6

Results

9.8 Sites with 1 to 15 units have been tested. It is clear that the difference in viability across the range of sites varies dependent upon site size and threshold. All sites have been tested using the Baseline Scenario assumptions.

Town Centres – Overall Area

9.9 The results for the Town Centre Markets for a whole can be seen below:

Overall Town Centre

Baseline Position		Site Size by Number of Units														
% AH	Tenure Split	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
0%	n/a	G	G	G	G	G	G	G	G	G	R	R	R	R	R	R
10%	80% SR 20%INT	G	G	G	G	G	G	G	G	G	R	R	R	R	R	R
10%	65% SR 35% INT	G	G	G	G	G	G	G	G	G	R	R	R	R	R	R
10%	50%SR 50%INT	G	G	G	G	G	G	G	G	G	R	R	R	R	R	R
20%	80% SR 20%INT	G	G	G	G	G	G	G	G	G	R	R	R	R	R	R
20%	65% SR 35% INT	G	G	G	G	G	G	G	G	G	R	R	R	R	R	R
20%	50%SR 50%INT	G	G	G	G	G	G	G	G	G	R	R	R	R	R	R
25%	80% SR 20%INT	A	G	G	G	G	G	G	G	G	R	R	R	R	R	R
25%	65% SR 35% INT	A	G	G	G	G	G	G	G	G	R	R	R	R	R	R
25%	50%SR 50%INT	A	G	G	G	G	G	G	G	G	R	R	R	R	R	R
30%	80% SR 20%INT	R	G	G	G	G	G	G	G	G	R	R	R	R	R	R
30%	65% SR 35% INT	A	G	G	G	G	G	G	G	G	R	R	R	R	R	R
30%	50%SR 50%INT	A	G	G	G	G	G	G	G	G	R	R	R	R	R	R
35%	80% SR 20%INT	R	G	G	G	G	G	G	G	G	R	R	R	R	R	R
35%	65% SR 35% INT	R	G	G	G	G	G	G	G	G	R	R	R	R	R	R
35%	50%SR 50%INT	R	G	G	G	G	G	G	G	G	R	R	R	R	R	R
40%	80% SR 20%INT	R	G	G	G	G	G	G	G	G	R	R	R	R	R	R
40%	65% SR 35% INT	R	G	G	G	G	G	G	G	G	R	R	R	R	R	R
40%	50%SR 50%INT	R	G	G	G	G	G	G	G	G	R	R	R	R	R	R

9.10 A green light is given if the target return is produced as a result of testing a site of this size. An amber light indicates that the return is marginally viable and a red light shows a return below 3% of the target return and therefore is deemed to be non viable. The results shown here are different to those shown in Section 4, above, where less viability was seen as analysis of these small sites were not included in the previous assessment and the results in Section 4

represent a sample size of larger sites. These results are also given on a blended value for the Town Centre area as a whole. The performance of individual settlements can be seen in Appendix B

9.11 These results show a very clear tipping point at 7 units in this area. Some of the sites at a 15 unit threshold show reduced viability at the higher levels of affordable housing, which is due to these sites delivering higher numbers of affordable housing when compared with 14 units sites using the rounding mechanism provided above.

Deprived Areas

9.12 The viability for the Deprived Areas was extremely low on each of the sites tested and in each development scenario. For this reason it has been difficult to determine the tipping point for a threshold in these areas as the market is such that no site will sustain a viable delivery of affordable housing against the benchmark parameters and assumptions considered in this assessment. Delivery of homes in this area is expected to be limited due to the market dynamics and without intervention or a change in development assumptions it is unlikely affordable housing will be delivered at any threshold.

Suburban Areas

9.13 The results for the overall Suburban sites are as presented below:

Overall Suburban Baseline Position		Site Size by Number of Units														
% AH	Tenure Split	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
0%	n/a															
10%	80% SR 20%INT															
10%	65% SR 35% INT															
10%	50%SR 50%INT															
20%	80% SR 20%INT															
20%	65% SR 35% INT															
20%	50%SR 50%INT															
25%	80% SR 20%INT															
25%	65% SR 35% INT															
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30%	65% SR 35% INT															
30%	50%SR 50%INT															
35%	80% SR 20%INT															
35%	65% SR 35% INT															
35%	50%SR 50%INT															
40%	80% SR 20%INT															
40%	65% SR 35% INT															
40%	50%SR 50%INT															

9.14 Each of the market areas have been tested from 15 units through to a single unit, and presented in each case is the point at which viability varies. Between 15 and 7 units there was no variation in the viability results. A site size of 7 units appears to be the tipping point in the suburban area. It is important however, to appreciate that each individual site must be assessed on its merits and the delivery of affordable housing on sites of this scale may be problematic if there

are high levels of abnormal and remediation costs on sites. In high value areas a tipping point of 6 units was recorded, in medium value areas a tipping point of 7 units was recorded and in the low value areas no viability was seen.

Rural Areas

9.15 The results for the overall Rural sites are as presented below:

Overall Rural Baseline Position		**Site Size by Number of Units**														
% AH	**Tenure Split**	**15**	**14**	**13**	**12**	**11**	**10**	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**
0%	n/a															
10%	80% SR 20%INT															
10%	65% SR 35% INT															
10%	50%SR 50%INT															
20%	80% SR 20%INT															
20%	65% SR 35% INT															
20%	50%SR 50%INT															
25%	80% SR 20%INT															
25%	65% SR 35% INT															
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35%	50%SR 50%INT															
40%	80% SR 20%INT															
40%	65% SR 35% INT															
40%	50%SR 50%INT															

9.16 These results show a very clear tipping point at 7 units in this area, though, curiously, some of the sites at a 15 unit threshold show reduced viability at the higher levels of affordable housing. This is due to these sites delivering higher number of affordable housing when compared with 14 units sites using the rounding mechanism provided above.

9.17 It is clear therefore from the results above that a tipping point of 6/7 units is apparent for each of the areas tested. In the highest value areas such as Leamington Spa and the Rural areas a tipping point of 6 units can be delivered. Based on this research it is clear that Warwick District Council could reduce their sites thresholds to 6 units or 0.25 hectares in the urban areas without materially impacting upon scheme viability.

Practicality of Proposed Thresholds

9.18 The results of this modelling focusing on small sites shows that the difference in viability between sites of 10 units and 7 units is minimal. If WDC are considering reducing their policy threshold to below the PPS 3 suggested target of 15 units and below their existing threshold of 10 units, there is evidence to support this (above). The suitability of a different threshold must be considered in light of the sites proposed through the SHLAA and the likely developments which will take place on sites across the market areas.

9.19 PPS3 indicates that adoption of a lower threshold than the national norm of 15 units should take into account not only viability issues but also the practicality of applying a lower threshold. In terms of practicality, consideration needs to be given to the benefits of applying a lower threshold in terms of securing more affordable housing units than would otherwise be the case; versus the administrative costs of bringing a large number of schemes within the net of affordable housing policies, and any unintended consequences such as reducing the overall delivery of housing, deterring developers and causing delays in the planning system.

10.0 Conclusion and Recommendations

10.1 The results of each of the market scenarios tested above show that the five distinct markets, namely Town Centres, Suburban Areas, Rural Areas, Deprived Areas and Urban Extension Areas (which neighbour the suburban areas), perform differently in the current market conditions. Each of the market areas have been segregated into High, Medium and Low values and the summary results are shown below.

10.2 If we look first at the District as a whole by combining the average results of each of the market areas we can see the following headline results.

Baseline Market Position	Mid (Point) Position	Improved Market Position
14% Affordable Housing	27% Affordable Housing	33% Affordable Housing

10.3 These results are calculated taking the viability on the majority of sites (50% or more) for each of the market sectors combining them and giving an average for the Warwick District as a whole. If we look at the position where sites start to show viability (1 or more sites yield a viable result) the following results can be seen.

Baseline Market Position	Mid (Point) Position	Improved Market Position
33% Affordable Housing	36% Affordable Housing	39% Affordable Housing

10.4 When analysing the results above, it is important to consider that over the 15 year lifespan of the Core Strategy the property market will fluctuate and it is important that any subsequent affordable housing policy which is drafted is flexible enough to deal with these changing market cycles. .

10.5 Given the level of need for affordable housing across the District it is clear that setting a policy for 15 years based on the current market conditions is not sustainable and will not support WDC in meeting their statutory requirement to provide housing for those in need. It is also important to consider here that this document only forms one part of the evidence base for the Affordable Housing Policy and the results of the SHMA need to be considered alongside these results before concluding on acceptable way forward. Also given the range of scenarios for the delivery of affordable housing which has been undertaken this averaging approach for the whole District is likely to not give enough clarity to any future Affordable Housing Policy. Therefore analysis of the Warwick District has been undertaken in the five distinct market areas in order to determine whether any affordable housing policy should set individual

targets for each of these areas or whether an overall policy is more deliverable in some parts of the District than others.

Overall Average Results

10.6 If we take the overall average for each of the market areas the following position can be seen:

Market Area	Baseline Market Position	Mid Market Position	Improved Market Position
Town Centre	35% Affordable Housing (50% SR/ 50% Int)	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)
Suburban	20% Affordable Housing (80% SR/ 20% Int)	25% Affordable Housing (65% SR/ 35% Int)	35% Affordable Housing (80% SR/ 20% Int)
Deprived Areas	0% Affordable Housing	0% Affordable Housing	0% Affordable Housing
Rural Areas	35% Affordable Housing (50% SR/ 50% Int)	40% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)
Urban Extensions	0% Affordable Housing	30% Affordable Housing (50% SR/ 50% Int)	40% Affordable Housing (80% SR/ 20% Int)

10.7 If we review this position to record viability where any green or amber lights are shown the following results can be seen:

Market Area	Baseline Market Position	Mid Market Position	Improved Market Position
Town Centre	50% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)
Suburban	40% Affordable Housing (65% SR/ 35% Int)	40% Affordable Housing (65% SR/ 35% Int)	40% Affordable Housing (80% SR/ 20% Int)
Deprived Areas	0% Affordable Housing	0% Affordable Housing	10% Affordable Housing (80% SR/ 20% Int)
Rural Areas	50% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)	50% Affordable Housing (80% SR/ 20% Int)
Urban Extensions	25% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (65% SR/ 35% Int)	50% Affordable Housing (80% SR/ 20% Int)

Percentage of Affordable Housing

10.8 The results above show that a range of 0%- 50% affordable housing is deliverable depending upon the scenario and area tested and the tipping point selected. Given that certain areas of the District perform far better than others, DTZ would suggested WDC consider producing a zoned affordable housing policy which has different affordable housing percentages by area.

10.9 There is the ability from the analysis undertaken to further segregate these markets into High, Medium and Low value areas however, given the complexity that this would bring, DTZ would suggest that the policy is not further segmented as the results would be unmanageable and difficult to interpret. Rather, the information provided above should be used to aid site specific viability discussions.

10.10 Given that it is difficult to predict the future of the housing market and the likelihood of reaching the Improved Market Scenario before the end of the 15 year Core Strategy Policy, DTZ would suggest that setting a target assuming this scenario would be ambitious for a policy set in 2011. However, setting a 15 year policy based on the current market conditions is equally unsustainable. Any policy drafted must be flexible to deal with the specific market circumstances prevailing at the time of the application and the specific conditions of the site – particularly in relation to abnormal development cost as all of the results above exclude any allowance for abnormal development costs.

10.11 **Density and Site Size**: The results of this study show that the impact of site size and site density play an important role in the viability of schemes. The threshold analysis contained in section 9 of this report shows the impact on viability on smaller schemes, but more widely it was found that large schemes are less deliverable in the current market than smaller schemes. This is due to the extended development timeframes and significant expenditure costs required to deliver larger schemes. Where density was increased, viability is increased. However, the current trend is for development densities to be reduced and this is reflected by the fact that the baseline assumptions assumed lower densities than the improved market scenario and therefore low levels of delivery. However, the key driver in all the results -is house prices. The higher the house price assumption the greater the viability.

10.12 **Development with Housing Grant.** All of the results presented within this report assume no grant funding.

10.13 **Thresholds.** The evidence provided in Section 9 of this report demonstrates that there is evidence to support reducing the threshold from the PPS 3 Guidance of 15 dwellings and that a figure in the region of 7-10 dwellings may be more appropriate in terms of viability. However, the results did vary dependent upon the market area tested and there are a number of other considerations including the administrative burden of reducing the threshold below 10 units.

10.14 **Site Specific Appraisals.** This is a strategic study which covers viability at a policy level and is not focused upon specific site analysis. DTZ would recommend that any policy written should have the flexibility to consider individual and site specific analysis. Any negotiations opened with developers in relation to affordable housing delivery on specific sites are likely to occur on sites which have marginal viability. Such sites are likely to include Brownfield development sites which have high levels of abnormal development costs which require upfront expenditure to bring the site forward. The impact of upfront costs is particularly important to consider in the current market as the development cashflows lengths are increasing important and the length of time between incurring these costs and seeing a positive return from the scheme can be significant. Similarly on large Greenfield sites where a significant investment in infrastructure is required up front to deliver the schemes, viability is likely to be affected.

10.15 It follows that the process for a developer with valid grounds for seeking a reduced level of affordable housing on a specific site, requires to be set out in policy. DTZ suggest that such a policy should include an outline of how a developer seeking a reduced level of affordable

housing is to approach WDC on a site by site basis. DTZ would suggest that WDC enter into an Open Book discussion with the developer or land owner seeking a reduction in the contribution. The developer or landowner should be asked to provide their development appraisals and supporting evidence to demonstrate their argument that the scheme cannot viably deliver the policy level of affordable housing. Any information provided should include full assumptions and evidence in relation to revenues and build costs. This appraisal can then either be considered in house by WDC Asset Management Team or a third party can be appointed to assess the information provided and establish its reasonableness. Whilst it is common practice for Local Authorities to request that the applicant covers the cost of this additional work, WDC should ensure that they commit to turning the assessment around in a timely manner which does not unduly delay planning applications and so that this is not seen as a burden by the development industry.

10.16 In addition to outlining this approach in policy, it would be beneficial, where required, for WDC to train its Planning Committee Members in the issues of development viability and the proposed process for dealing with negotiations.

10.17 The results of this study will inform policy but do not bind WDC to adopt the results or follow the guidance in relation to specific or individual sites. Neither do the results of this study and the completion of the commission result in DTZ's support of any subsequent affordable housing policy created and adopted by WDC. DTZ have acted in an independent advisor capacity and will not draft any subsequent affordable housing policy which will be undertaken by WDC.

10.18 **Regular Review.** DTZ would suggest that any affordable housing policy drafted in the Core Strategy sets out its approach for regular review and updates throughout the life of the Core Strategy in order to enable changes in market circumstances to be properly monitored and accounted for.

Warwick District Council

Affordable Housing Viability Assessment Appendices

July 2011

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Quality Assurance Record	
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Contents

1.0 Appendix A – Statement of Common Ground and Final Assumptions

1. Study Areas

i. Town Centre ii. Suburban iii. Deprived Wards iv. Rural / Edge Village v. Urban Extension

Respondent	Stakeholder Comments	DTZ Comments	Warwick DC Comments
1	***The viability of Small and Medium extentions to existing settlements should be explored*** on the basis that **a.** They are likely to prove more viable and provide housing of a type and in locations that meet the aspirations of house purchasers. **a.** would also provide the best opportunities for the Council to quickly take advantage of the New Homes Bonus, which the Government is intending to pay to council's for each new home completed, including 125% for each affordable home provided. It is intended that this will be paid from April 2011 onwards. Because greenfield sites tend to be more viable because they face fewer development obstacles than brownfield sites they are potentially better able to provide more affordable housing. Even if the Council is not currently planning to release such sites, it may wish to test for an alternative delivery strategy that provides for more greenfield development to show how such a model may better serve to maintain levels of house building as well as affordable housing supply.	There is scope to add medium and small urban extension site to the model, though the consideration of the merits of including such sites in the core strategy is outside the remit of this study	Agree with DTZ
	The Government's proposed changes to the planning system will involve communities more directly in formulating local plans. Communities may decide that they want extensions to villages and towns thereby rejecting the constraints imposed by former RSS policy. It would be valuable therefore, for illustrative purposes, to show the viability of developments in such locations and how much affordable housing they may be able to sustain.	Noted. This can be modelled through the addition of additional site sizes as above	Agree with DTZ. Sustainability will still be a major consideration in planning policy
	The Council may also wish to reconsider the physical make-up of some of its hypothetical schemes. For example, there may be circumstances where a community may decide that it wants lower density development in a town centre. Testing the viability of this would help illustrate to the community the potential choices that might have to be considered: for example a lower affordable housing yield in exchange for more two storey or family homes.	This is an important consideration for WDC when considering the results of the EVA. However, the budget constraints of the study does limit the number of sites which can be considered in this work. DTZ take on board the point but feel that the proposed modelling of 25dph below the previous PPS3 Target of 30 dph acurately reflects both low density development and the DC constraints which will be considered by WDC in assessing any planning application.	Agree with DTZ
2	Given that it is proposed for this study that Low Density equates to about 30 dph, we believe that a 'low density' scenario should also be included as a hypothetical scheme for for'Large – Urban Extension' sites. According to Land Use Change Statistics (England) 2009 - provisional estimates (May 2010), new dwellings were built at an average density of 45 dwellings per hectare. However new dwellings on non previously-developed land were built at an average density of 32 dwellings per hectare. Given that the national indicative minimum densityof 30 dwellings per hectare has recently been deleted from paragraph 47 in PPS3 we believe that the average density of sites will fall in the future as the market adjusts to better meet local needs and aspirations particularly for more family housing	Whilst it is quite likely that large areas of large urban extension sites will be of 30dph, we think that in the same vein there will also be areas of notably higher density, so we are of the view that a density of 35dph is a reasonable average density.	Agree with DTZ but happy for 30dph to be tested.
3	No Comment		
4	Seems a fair reflection	Noted.	
5	Yes adequately cover market areas	Noted.	
6	Yes	Noted.	

2. Site Size - Rural Areas: Small - 0.25ha, Medium 0.5ha, Large 2ha; Other Areas: Small - 1ha, Medium 2.5ha, Large 5ha; Urban Extensions: 80-100ha			
Respondent	**Stakeholder Comments**	**DTZ Comments**	**Warwick DC Comments**
1	The Government's proposed changes to the planning system will involve communities more directly in formulating local plans. Communities may decide that they want extensions to villages and towns thereby rejecting the constraints imposed by former RSS policy. It would be valuable therefore, for illustrative purposes, to show the viability of developments in such locations and how much affordable housing they may be able to sustain.	Noted. Covered above.	Agree with DTZ.
	The model should consider smaller sites – say 0.25 and 0.5 hectares sites – coming forward in town and suburban locations. We are expecting fewer large scale schemes to come forward over the next five years in view of the political uncertainties surrounding the Government's localism agenda. Also, anecdotal evidence from members suggests that they are tending to concentrate on smaller sites in all types of locations with an emphasis on building the type of product (traditional two storey houses) that will sell to those with equity. Small and Medium scale extensions to existing settlements should be considered as it is these that are likely to prove more viable and provide housing of a type and in locations that meet the aspirations of house purchasers. [The Council] may wish to test for an alternative delivery strategy that provides for more greenfield development to show how such a model may better serve to maintain levels of housebuilding as well as affordable housing supply	How does 0.25-0.5ha sites in town and suburban locations match up with the SHLAA? Smaller sites will be tested during the threshold analysis section of the report.	There are 15 small urban brownfield sites in the SHLAA under 0.5 ha and 17 under 1.0 ha. Suggest reduction of lowest size threshold.
2	For modelling purposes the size of urban extension sites should be ammended so that the study has due regard to all proposed strategic urban extensions that are considered critical to the successful delivery of the Core Strategy. As a case in point, the "Land of Europa Way Site, Warwick" measures approximately 63 hectares, therefore 80-100 hecatres is consideed both too large a site and too specific, also why the upper threshold? Should more than one catergory of Urban Extension be included, say "50-100 hectares", and "100+ hectares". The minimum size should start at no more than 50 hectares.It is also important tonote that large Urban Extension sites will be expected to meet a large element of the affordable housing needs of the District but have a different profile to the other smaller sites, with a much greater demand for services and infrastructure and generally a far more critical cash flow profile.	Suggest reducing the size of large Urban Extensions to 50ha. In reality larger sites than this will be delivered in Phases and therefore the introduction of smaller Urban Extension sites above, will consider the early phases of any larger sites and give an opnion of the viability of delivery. It should be noted that any negotiation for affordable housing and other planning obligations would be undertaken on both a total scheme and phase by phase basis and therefore this readjustment in site size under the Urban Extension area should cover this point.	Agree that the lower site size for urban extension sites should be reduced
3	"Other Sites" need to take account of larger sites, beyond 5ha, where a more meaningful proportion of affordable homes could be provided alongside market homes	Consideration of an Extra Large Site Size? This would be difficult to provided within the current budget. Again the phases argument above would stand here.	Sites over 5 ha unlikely within the urban areas.
4	Seem fair reflection	Noted.	
5	Yes	Noted.	
6	Yes	Noted.	

3. Density: Low=25dph, Med=33dph, High 40dph			
Respondent	**Stakeholder Comments**	**DTZ Comments**	**Warwick DC Comments**
1	The Council may also wish to reconsider the physical make-up of some of its hypothetical schemes. For example, there may be circumstances where a community may decide that it wants lower density development in a town centre. Testing the viability of this would help illustrate to the community the potential choices that might have to be considered: for example a lower affordable housing yield in exchange for more two storey or family homes.	Noted. This can be modelled.	Agree with DTZ
	The densities appear sensible. We are not sure, however, that the model can assume that under an Improved Market Scenario there will be a revival in town centre high-density schemes, or that there will be local support in the future for such types of schemes[1]. The demand for such a product from future purchasers is likely to be very limited and the ability to secure local political support for apartment developments is also extremely uncertain.	Reject. We do not think it is unreasonable to consider this as a scenario in an improved market, especially as apartment schemes in the town centres would seem to continue to sell at prices that make them viable	Agree with DTZ.
2	As noted in our response to the first question in this questionnaire, we believe that there is a need for an assessment to more correctly reflect current and anticipated market demands over the Plan Period. Specifically we suggest that lower densities should be considered on both rural and urban extension sites. Even on urban extension sites over the short to medium term we anticipate no/very limited demand for apartments and dwellings of more than 2 storeys. Coupled with this there will be an increased market demand for more off street private parking/garages than has been provided on many developments of late.	Whilst it is quite likely that large areas of large urban extension sites will be of 30dph, we think that in the same vein there will also be areas of notably higher density, so we are of the view that a density of 35dph is a reasonable average density.	Agree with DTZ
2	It is not entirely clear what the 'baseline' density assumption is for Town Centre sites. We assume that it is 50 dph and that under Improved Market Scenario this increases to 65 dph? Notwithstanding a need to safeguard the character of the District's town centre areas, if the baseline assumption is 40 dph, we consider this to be to low.	The baseline density for town centre sites is 65dph, not 40dph	
2	Also we do not believe that an improved market will necessarily mean that the average density of developments will increase. If there is any increase we see this happening over a number of years and until the back end of the plan period on new sites that come forward.	It may be more the case that densities improve in more central schemes (town centre) than suburban. Agree with comments this is meant to reflect a scenario toward the end fo the plan period	
3	Mixed Densities on larger sites are called for in emerging policy	Agree, but we think the average densities we have proposed are right.	
4	Seem fair reflection		
5	No because of the change to the density definition in PPS3, the move back towards providing more parking and the lack of market for flats, the low density for "rural" and "other" areas is more likely to be in the range of 20dph for low and 25dph for medium	May be reasonable to apply this to small rural sites (though this is not compatable with WDC Planning Policy), but not other areas.	
6	Yes		

4. Development Scenario. 1. June 2010 Baseline, 2. Improved Market Position, 3 Mid Market Position

Comments on the legitimacy of these scenarios are covered in the sections regarding the behaviour of price in these alternative scenarios.

5. All Sites have full planning permission for residential development

No Comments recieved

6. No abnormal development costs

Respondent	Stakeholder Comments	DTZ Comments	Warwick DC Comments
1	We think it is unwise to assume that development sites will not encounter unforeseen but potentially costly obstacles to development. Discussion of this issue with members supports this. Few sites encounter no unforeseen development costs in their building-out. Not to account for abnormal development costs would appear unreasonable and would fail to take into account unforeseen costs associated with the development at the time of negotiating the land purchase price, or subsequent changes in legislation that result in greater costs to the developer (as in the case of rising remediation and legal costs following the Corby-judgement). It is, however, extremely difficult to identify an average abnormal cost. I have discussed this with members and such costs vary considerably from site to site although the cost of these works is the same regardless of the market value of the land in question (i.e. a site that has higher decontamination costs associated with its development will not be any cheaper to buy). Following discussion with members we suggest that you would need to factor in an average of 5% on top of the total build costs to account for ground conditions works / decontamination.	The model is not site specific, and it would be impossible to propose a "normal" level of "abnormals" to apply to sites. In order to ensure all sites are tested on a comparable basis this element is removed.	Any unforeseen "abnormals" would be taken into account in negotiating for affordable housing at the application stage
2	Some of these assumptions need careful consideration. Sites are unlikely to be free of abnormal costs and therefore an understanding of what can be termed “abnormal” and how these development costs can be taken into account, needs to provided. Often one has to struggle to get agreement as to what is abnormal and to get these extra costs recognised as such. We recommend that provision should be made in the model so that, as a sensitivity, abnormal costs could be added and varied incrementally to demonstrate the resultant impact on economic viability and residual site values of abnormal costs.		
4	The one major criticism that I have is that a viability model in which the Assessment assumes a clear site with no site abnormals does not provide for a reasonable and robust assessment.		

7. All sites are clear and ready to develop

No Comments recieved

8. Minimum Return 18% GDV

Respondent	Stakeholder Comments	DTZ Comments	Warwick DC Comments
1	A minimum return of 18% on the GDV is too low. The downturn in the housing market has had a significant impact on the level of risk that developers, house builders and their financial backers are prepared to accept. Difficulties in selling completed units and increased development costs have led many organisations to seek greater rates of return for the level of risk involved. Many developers in the current economic climate must make allowances for higher profit levels in order to secure development finance – this is what banks and investors are demanding as a condition for their investment. To reflect the far more cautious business environment, we recommend that the viability assessment sets a baseline of at least 25% GDV. 15% GDV was the level of GDV that viability models tended to apply pre-recession (as in the case of the Three Dragon's toolkit). This was when risk was far lower than it is now. In today's market lenders are demanding a much higher rate of profit to compensate for the increased risk associated with housing development. The latest evidence we have is that lenders are now seeking profit margins in the order of 20-25% of GDV. We also expect the fallout from the recession to be far-reaching. Investors will remain cautious and the recovery of the mortgage market will also be slow with limited equity available compared to conditions prevailing in 2007. This will have a dampening effect on house prices. As we have stated above, this will limit the scope for affordable housing contributions that have tended to rely on house price inflation to be viable.	Noted. Propose adjusting to 20% GDV. Or 22% current market and 18% future market. We feel 25% GDV is too high as our model makes assumptions for overheads and sales costs on top of profit and therefore this is the net return to the scheme	No Comment
2	Based on our own experience a minimum return in the market place is likely to be 20% -25%, in fact 25% is this now the lending requirement being set by many banks. Therefore under the baseline scenario we recommend 25% and under improved market conditions 20%.		
3	GDV should be 20% minimum		
4	Generally speaking, the selection of notional assumptions are appropriate. However, one is sceptical that that a Baseline Position minimum return of 18% GDV is presently realistic in today's market. There has been an increase in the perceived risk in undertaking development and more recently it is our experience that a level of developer return in the region of 20% GDV is a fairer reflection given that many banks will still not lend without sufficient levels return. We would however, suggest that DTZ undertakes sensitivity analysis on selected sample schemes with higher levels of profits in order to robust analysis of viability.		
5	The 18% return is too low. Finance cannot now be obtained to any projects where the margin is less than 20% and, talking with colleagues, some banks are insisting on 25% before they will support a purchase. This practice is unlikley to change; as we all know the banks got their fingers severely burnt and are now apply much more scrutiny to the projects. Even when the market picks up again the banks will continue to insist on schemes with these sort of returns becuase when the market is flying the risks are greater when it turns. In my opinion the assumption should be at 22% of GDV		

9 Sales rates (Baseline Position): Small Sites (<50 units) 1.5 units per month; large Sites (>50 units) - 2 per month;			
2	Sales Rates, particularly on the large sites with high upfront costs will need to be higher than suggested if the sites are to come forward, as otherwise there will be cashflow constraints. It is also important ot bear in mind that some of the large urban extension sites are likely to have more than one housebuilder active on site at any one time and may actually be bringing forward different parts of the site in parallel. Given such considerations and not withstanding the current state of the housing market, we believe that on larger urban extension sites rates should be set at a minimum of 6 units per month under the baseline scenario; the lead in times mean that these sites will not be on the market until circa 2013/14	Noted. Propose adjusting sales rate for urban extension sites.	No Comment

10 Sales rates (Improved Market): Small Sites (<50 units) 3 units per month; large Sites (>50 units) - 4 per month;
No Comments recieved

11: Interest Rates - 7% baseline position; 6% Improved Market			
Respondent	**Stakeholder Comments**	**DTZ Comments**	**Warwick DC Comments**
1	Content that the averages proposed are reasonable average for modelling purposes		
3	Interest Rates at 7% are not realistic. It is currently difficult to secure loans. These are often restricted to 65% loan to value and with an arrangement fee of 2%. Suggest notional interest rate at 9%	The financing arrangements of different companies are likely to be variable, we feel this is a fair overall rate.	No Comment

12: All In Build Costs Houses=£82 per sq ft; Apartments £100psf; Assumes CSH Level 3			
Respondent	**Stakeholder Comments**	**DTZ Comments**	**Warwick DC Comments**
1	As I recommended at the Stakeholder event the Council should reflect the cost of meeting the stepped programme to zero carbon homes (Part L of the Building Regulations) the first stage of which becomes mandatory on all new homes from 1 October 2010 (a 25% reduction on the 2006 building regulation baseline levels) and then zero carbon homes from 2016 onwards. The zero carbon programme will add significantly to the cost of development. The CLG report *Code for Sustainable Homes: A cost review* (CLG, 2010) provides reliable data on the cost of the various elements of the Code. The report also relates the build costs of the various elements of the Code above the 2006 baseline Building Regulation cost requirements and against a range of site types (small greenfield, brownfield, strategic etc). The costs are expressed per square metre and are the costs expected to be incurred above the baseline 2006 Building Regulations costs. Table 7 of the Code for Sustainable Homes: A Cost Review report provides details of the 2006 baseline build costs. For example: Flats The figure for flats quoted in the DTZ report is £100 per sq ft. This comes out at an equivalent to £920 per square metre. The CLG report gives a baseline cost of £980 per square metre. This is broadly comparable to the figure quoted by DTZ but the cost of Code 3 will also need to be added onto this which on a large urban site will range between an additional £36-107 per sq metre. On a medium urban site the cost will be an additional £38-108 per sq m. On a city infill site it will be between an additional £45-116 per sq m. Houses The figure for houses given in the DTZ report is £82 per sq ft. This comes out at an equivalent to £750 per square metre which is possibly a bit low when compared to the CLG report that quotes £850 per square metre for a four bed detached house, and much higher still for terraces (2 bed terrace = £1,185 per m2: 3 bed terrace = £1,070 per m2). Building to Code Level 3 would add between £21-30 per detached house on a large urban site. We strongly recommend that the costs provided in the CLG report are used in the modelling.	BCIS, which we have used, is a robust baseline figure. This is a robust approach which has been successful adopted in other studies.	Agree with DTZ. Costs and technologies will change as the stepped programme comes into effect - difficult to estimate future costs of the programme.
2	Is it appropriate to assume CSH 3 through-out the lifetime of the Plan even under the 'Baseline Position' for large urban extensions sites that will take a number of years to build out? Furthermore earlier this year the HCA consulted on proposals to apply new core housing standards, including a minimum of Code Level 4, to scheme allocations made under new programmes from April 2011. If the proposed standards are agreed, they will apply to new build, general needs, non-specialised housing where the agency is providing an element of grant funding, facilitating or providing free or discounted land value or facilitating or funding major infrastructure investment as part of a regeneration project. This would apply to homes developed for both affordable rent and the intermediate market.		
4	By 2013 all houses are expected to be Code Level 4, while by 2016 all houses are expected to be Code Level 6 (Zero Carbon). It is suggested that DTZ assumes for the purpose of the study that all new dwellings will meet the relevant Code Levels at these dates. In respect of the costs associated with meeting each standard I refer you to CLG publication 'Cost Analysis of the Code for Sustainable Homes: Final Report' published July 2008 as a baseline and assume a medium case (market town scenario with medium ecological value and low flood risk) scenario. This results in the following cost increases (above the costs of meeting current regulations): (per square metre/psm) Code 3: £50psm flat and £43psm houses; Code 4: £103psm flat and £101psm houses; Code 5: £208psm flat and £191psm houses; Code 6: £360psm flat and £335psm houses		

13 All in Build Cost - Improved Market : Houses=£94 per square foot; Apartments = £115 per square foot; Assumes CSH Level 4 inflaltion by 15% from previous figure

No Comments received

14: Land Values -25% of GDV

		Stakeholder Comments	DTZ Comments	Warwick DC Comments
1	**Support** the figure of 25% of the total scheme revenue used here as a guide to what would typically need to be allowed for as necessary to incentivise an owner to sell		Based on the feedback provided, 25% of GDV is a reasonable stance to take and the resultant land values where viable will be tested agains an alternative use values.	No Comment
2	**Agree.** Existing/ alternative use value is a reasonable test in many instances but it is not realistic where such uses are of minimum value and the uplift may be significant. Land owners will have an aspirational view of values (as much based on historic values) which if not attainable will likely result in them not bringing the site forward. In short, the perceived residual value of development land must exceed the existing use value for landowners to consider bringing land forward for development. 25% can be taken a reasonable minimum to achieve but should not be treated as a fixed target. The study should only compare against an alternative use value that either has planning consent or doesn't require planning consent. Whilst there is clearly a relationship between land value and GDV it is not of a 'straight line'. Other development costs are for the most part fixed so that as house prices increase, land value forms a greater proportion.			
3	Greenfield/Agricultural Land We can respond on behalf of our clients, who are landowners and not developers. Generally the threshold of value aspirations of landowners will vary considerably depending on their individual circumstances. 25% may be an appropriate starting point for modelling, but in reality landowners would expect a much higher threshold of nearer 50%, taking into account other costs, such as s106 obligations, infrastructure provision, ground conditions and taxation.			
4	Agree/Disagree?? Predicting the values at which land will be brought forward for development is another difficult area for models of this type. In order to forecast the amount of development that might take place in the future, it is also necessary to make assumptions which define a trigger point at which landowners will decide to bring land forward for development or redevelopment. Landowners vary in their propensity to offer land into the market for development. Rationally, the perceived residual value of development land must exceed existing use value for landowners to consider bringing land forward for development, but there is no accepted point or evidence based assessment to indicate when the conditions are such that a trigger point will be reached. In our experience land values differ significantly between Greenfield/Brownfield and a 'one size fits all' 25% of GDV is not appropriate			
5	No, with a caveat, 25% might be a minmum value but more typical would be 30-35%, particularly for non urban extension schemes (brownfield, redevelopments, gardens schemes) Agricultural land - most of this would be subject to options with a minimum land purchase price - typically this is £250,000 - £300,000 per net developable acre. for back gardens the figure is more likey to depend on the value of the existing dwelling. This could translate to as much as £1,000,000 per acre in those good parts of Leamington, Kenilworth and Warwick that have large gardens Brownfield land/industrial land - this is more difficult because your assumptions ignore contamination/ground conditions and the value of the existing use is important. £500,000 per acre might be a reasonable assumption.			
6	Yes			

16. Unit Size

	Stakeholder Comments	DTZ Comments	Warwick DC Comments
2	Suggest larger 2 bed houses - 71sqm, 3 bed houses - 96sqm, and 4 bed houses - 108sqm, in order to allign with the minimum requirements of the HCA proposed national standard (2010), and highlights how HCA is considering a new space standard for application nationally to publically funded homes from April 2011	DTZ happy with the suggested amendments	
3	No Comment		
4	No Comment		
5	I have no objection to your unit sizes. The affordable will have to be whatever the DQS says they should be.		
6	Affordable Unit Sizes: 1 bed flat - 48sqm; 2 bedflat - 61sqm; 2 bed house 71sqm; 3 bed house - 96sqm; 4 bed house - 117sqm; 5 bed house - 127sqm		

18: Unit Values - Baseline

	Stakeholder Comments	DTZ Comments	Warwick DC Comments
1	We do not agree with the revenue assumptions built into the model.	See response to 5, below	No Comment
4	Your revenues are derived from Home tracker and the Land Registry. Whilst we understand these sources to provide revenue data for new and second hand properties, the majority of sales in recent months have been for second hand properties. This was confirmed by one of the representatives at the workshop. It might therefore be prudent to add a premium of 10% to reflect the additional value that new properties achieve on the market.	See response to 5, below	
5	In terms of revenues, we think your figures are too high. It is difficult to prvide cast iron evidence to you as we haven't done much in Warwick recently due to the moratorium. In 2007 we built a small development in a very good suburban part of Kenilworth (Rose Gardens, Leamington Road) of detached dwellings where we achieved net sales of £265/ft. In 2006 we had a mixed development of flats and town houses in Lillington Road, Leamington, again a good area where we acheived £270/sq.ft. Of course these were in the good times and we think we are a top-end developer. Last year we bid for a site at North Lemington Schools again a good area and our market research indicated net sales of £250/sq.ft We are currently about to purchase a site in Claverdon which is just over the border from Warwick Dc in Stratford DC. It is a typically posh village of the type found throughout the south Warwickshire area, here our reserach indicates revenues of £300/sq/ft but this is for a very small, select, top-end, development. On the basis of the above and the local knowledge of our land guys we would suggest good town Leamington/Warwick/Keniworth flats - £260/sq.ft good suburban all three - £250/sq.ft good rural - £300/sq.ft (but given rural planning policies in Warwick the number of open market dwellings provided in good villages will be countable on one hand) We cannot give an opinion on the sales in deprived areas	These suggested values for flats in the town centres are reasonable. Our good suburban "beacon" area is the Lower Level Super Output Area 001C (Kenilworth), where our values range from £215psf for a 2 bedroom flat, and £257psf for a 2 bedroom house, through to £247psf for a 5 bedroom house, with the sales rates peaking for 3 and 4 bedroom houses at around £255-258psf. On this basis the suggested values for "good" suburban seem slightly on the low side. The suggested values for good rural are the same as our suggested rate.	

19: Unit Values - See Appendix Four - Improved Market				
		Stakeholder Comments	DTZ Comments	Warwick DC Comments
1	We do not agree that sales revenues will necessarily increase as assumed under the *Improved Market Position* (20%) and *Mid Market Position* (10%) scenarios. It is not clear what evidence there is to support this. Some commentators are predicting a 20% fall in house prices over the next five years. We are also very uncomfortable with the notion that it is desirable to assume that housing will become more expensive than it already is when we have a collective duty to improve affordability. For modelling purposes the model should be based upon current sales values. It is important that we avoid the risk of the council delaying the granting of planning permission for development until such a time as the market has improved to a level which will sustain its s106 and affordable housing requirements. This would distort the purpose of the planning system.		This is a sensitivity testing mechanism; we need to test what level of affordable housing might be considered in future "possible" market scenarios, otherwise the Study risks giving advice rooted in price variables drawn from the bottom end of the market cycle . We are not proposing a future lower price scenario as it is more likely that prices will stagnate in the long term rather than fall, especially in a market as comparitively strong as Warwick District. It also must be remembered that the future scenarios are just that, they will have no relevance if the market does not improve.	
1	1. Given the crisis of affordability in the UK there is a pressing need to reconnect house prices with incomes, or, at very least, for house prices to stabilise or to grow more slowly than wage increases. It will be important therefore when modelling to consider improving access to owner occupation. Most current viability modelling assumes that market sales revenues will recover and continue to rise. Councils will have come to rely upon this scenario in order that affordable housing and a range of other policy requirements can be funded. This is unsustainable. The temptation to 'tax' development to margins of viability, in order to maximise the affordable housing contribution, and to pay for other policy and regulatory requirements, has been at the expense of low-cost market supply and the tendency for affordable housing requirements to be predicated on future house price inflation has proved extraordinarily injurious to those wishing to gain a foothold on the housing ladder.			
2	The scenarios suggest that the market will be no worse than today. However, thjere is a real possibility that the market may well worsen in the near future and such a scenario should be recognised. Also we consider that the mid market and improved market scenarios of 10% and 20% increase in values respectively would seem to be quite ambitious in the timescales under consideration.			No Comment
3	January 2009 was the low point of the market and in view of continuing fluctuations it may be prudent to consider this [improved market scenario and mid point market]. It is difficult to pre judge the market, and to base future policy on these market scenarios would not achieve the objective of increasing affordable housing provision. Both of these [DTZ suggested increases] would appear to be unrealistically high in the current climate			
4	A problem associated with forecasting future values is the cyclical nature of the market. The length and amplitude of these cycles can not be predicted with any certainty. It is felt that the fundamental weakness of the methodology proposed relates to attempting forecast values and relations between values that might provide a reasonable and robust basis to support policy over the period to 2026. At present many decision makers are grappling with the difficulties associated with determining the appropriate level of affordable housing that might be reasonable for large urban extensions which might take a similar time frame to complete. In connection with such large scale urban extensions, periodic phased viability reviews perhaps offer a more helpful approach in terms of what might reasonably be expected to be delivered. Due to the difficulties even with site specific models to forecast with any certainty what might be appropriate even within a years' time, to seek to provide a reliable forecast in space and time of what might be reasonably be expected to be delivered during the Core Strategy to 2026 is most uncertain. Should DTZ continue with the current methodology proposed, it is felt that the development scenarios need to be more dynamic. In other words they must be able to show the effects of the change in a number of variables on development economics. One might suggest two further development scenarios (i.e. an Upside Mid Point Market and a Downside Mid Point Market scenario).			
5	In terms of revenues, we think your figures are too high. It is difficult to prvide cast iron evidence to you as we haven't done much in Warwick recently due to the moratorium. In 2007 we built a small development in a very good suburban part of Kenilworth (Rose Gardens, Leamington Road) of detached dwellings where we achieved net sales of £265/ft. In 2006 we had a mixed development of flats and town houses in Lillington Road, Leamington, again a good area where we acheived £270/sq.ft. Of course these were in the good times and we think we are a top-end developer. Last year we bid for a site at North Lemington Schools again a good area and our market research indicated net sales of £250/sq.ft We are currently about to purchase a site in Claverdon which is just over the border from Warwick Dc in Stratford DC. It is a typically posh village of the type found throughout the south Warwickshire area, here our reserach indicates revenues of £300/sq/ft but this is for a very small, select, top-end, development. On the basis of the above and the local knowledge of our land guys we would suggest good town Leamington/Warwick/Keniworth flats - £260/sq.ft good suburban all three - £250/sq.ft good rural - £300/sq.ft (but given rural planning policies in Warwick the number of open market dwellings provided in good villages will be countable on one hand) We cannot give an opinion on the sales in deprived areas			

20 Affordable Housing Units -Intermediate Housing at 65% of Market Value; Social Rented Housing at 35% of Market Value				
		Stakeholder Comments	**DTZ Comments**	**Warwick DC Comments**
1	The unit values seem typical and therefore acceptable.		Adjust intermediate housing to 60% of market value	Agree with DTZ
1	Given the crisis of affordability in the UK there is a pressing need to reconnect house prices with incomes, or, at very least, for house prices to stabilise or to grow more slowly than wage increases. It will be important therefore when modelling to consider improving access to owner occupation. Most current viability modelling assumes that market sales revenues will recover and continue to rise. Councils will have come to rely upon this scenario in order that affordable housing and a range of other policy requirements can be funded. This is unsustainable. The temptation to 'tax' development to margins of viability, in order to maximise the affordable housing contribution, and to pay for other policy and regulatory requirements, has been at the expense of low-cost market supply and the tendency for affordable housing requirements to be predicated on future house price inflation has proved extraordinarily injurious to those wishing to gain a foothold on the housing ladder. We therefore recommend that the model considers as a policy scenario the potential to reduce affordable housing contributions in the interest of increasing the supply of low cost market and intermediate products. The model should have regard for the implications of any modelling on low-cost market housing supply. Paragraph 26 of PPS3 requires local planning authorities to take account of the need to provide low-cost market housing as part of its housing offer.			
2	The approach should not be rigid as this has potential consequences that can't bepredicted. Developers require flexibility and this should be appropriately reflected inpolicy. The landowner/developer should not be required to fund the provision of affordable land beyond providing the land. Availability of Housing Grant will therefore dictate and the tenure mix and the discount values for intermediate and social rented housing. There should be a 'cascade' mechanism, which will provide the certainty needed. The affordable housing tenure mix should include for a wider profile of occupier and adult care and housing for elderly.			
3	No comment			
4	Seem fair reflection			
5	No, as was confirmed by the guy from the HA at the meeting 65% is too high for intermediate. 55% should be used			
6	Agree with assumptions for social rented housing. Feel intermediate housing assumption is too high, should be 60%			

21: Affordable Tenure Splits 65% Social Rented and 35% Intermediate through to 80% Social Rented and 20% Intermediate				
		Stakeholder Comments	**DTZ Comments**	**Warwick DC Comments**
1	The model should test for higher proportions of intermediate housing – i.e. at least a 65% intermediate to 35% social rented split if not higher. This would at least be helpful in demonstrating to the public how a higher share of intermediate housing could have a very beneficial impact on viability, as well as providing a tenure type that is more popular with the public compared to social renting (the least popular form of tenure)[1]. The modelling will need to take into account the implications of these proportions on the ability for the market to provide low cost market housing.		The testing of a range of splits is designed so as to be flexible and we can add this in if required	The Housing Market Assessment pointed to a significant requirement for social rented housing, and given that Warwick District is generally a comparatively high priced area arguably the emphasis should be at looking at more rather than less social rented housing. On this basis we think that 35% of affordable housing provision being of intermediate tenure is an appropriate maximum allowance to test.
2	The approach should not be rigid as this has potential consequences that can't be predicted. Developers require flexibility and this should be appropriately reflected in policy. The landowner/developer should not be required to fund the provision of affordable land beyond providing the land. Availability of Housing Grant will therefore dictate and the tenure mix and the discount values for intermediate and social rented housing. There should be a 'cascade' mechanism, which will provide the certainty needed. The affordable housing tenure mix should include for a wider profile of occupier and adult care and housing for elderly.		The testing of a range of splits is designed so as to be flexible and we can add this in if required	
3	**Agree with approach,** though added note: would have considerable concerns if the results of the assessment were to be translated into rigid policy to be applied throughout the district; needs to be continuing flexibility on the issue until clear projections on the housing market can be determind. If targets are set for affordable housing that place too high an expectation on developers then Warwick Council will continue to experience an acute shortage of affordable housing. The final policy must have in built flexibility to be effective in seeking the delivery of affordable housing and must not be unrealistically aspirational. A criteria based "cascade" form of policy could be the most appropriate in times of unpredictability and should be investigated. The downturn in activity within the construction industry started some two years ago. Whilst house prices began to recover last year, this effect was not nationwide, and there has been recent evidence from several reliable sources, of a return to a downward trend. The situtation remains far from stable especially when coupled with changing government policy and the return of decision making powers to local councils, as well as new trusts to provde homes for local people. Indeed, the current economic and polciy state of flux does not make it possible to establish in terms of PPS3 (Annex B) the likely levels of finance vailable for affordable housing, including the level of developer contribution that can reasonably be secured			
4	Seem fair reflection			
6	Yes			

22: Public Subsidy				
		Stakeholder Comments	DTZ Comments	Warwick DC Comments
1	We agree that it is wise to assume nil public subsidy.		It is prudent not to allow for public subsidy in the modelling. The effects of public subsidy are best dealt with at the site level.	
2	Grant of £40,000 and £60,000 per unit for social rented units and grant at £20,000 and £30,000 per unit in respect			
3	Zero, in the current economic and political climate			
4	The Housing Corporation Investment Statement 2008-11 for the West Midlands shows the average allocation provided to deliver a unit of social rented housing in the south of the region was £48,728 whilst for intermediate housing the average per unit was £23,809. Predictions regarding future levels of Social Housing Grant are difficult to make given the current budget cuts and the recent initiatives by Government to bring forward future funding streams. Indeed even the nature of any future support is likely to be the subject of some discussion.			
5	I would have thought that it goes without saying that there will be no public subsidy so there is no point running a scenario that includes it			
6	The HCA have made it clear that they will only fund S106 affordable housing by exception in future. At this stage it is difficult to predict what they will be. I would expect them to be rented unit £30,000; intermediate £15,000			

23: Other Section 106 Contributions				
		Stakeholder Comments	DTZ Comments	Warwick DC Comments
1	At the stakeholder event we heard details of the expectations that Warwickshire County Council has with regard to education contributions. For example, one member has just received permission for 19 units on a site in Rugby. The Warwickshire CC element is £72,236 for education and £3,770 for libraries. Add in a contribution to public open space (£23,385) then this generates an overall scheme requirement for planning obligations of £99,391 or £5,231 per dwelling. Because there has been little development in Warwick recently owing to the moratorium it is difficult to provide more up-to-date information. Warwick Council will need to provide an indication here of the range it thinks it might seek to levy for modelling purposes. However, we are not anticipating the average for Warwick will be vastly different from the example quoted above as the bulk is made up with WCC contributions. Clearly then the £5k per dwelling under current policy is considerably more than the £1k per dwelling that DTZ was proposing to use in its model. Another developer we have spoken to has just submitted an application for a large urban extension to Rugby. This site is to be subject to WCC's new method of calculating education contributions. At the moment it is suggesting that the education contribution would be between £16 million and £20 million for 1,300 dwellings, depending on mix. So even the best rate would work out at £12,300 per dwelling for education alone and could be as much as £15,386. We strongly recommend that DTZ talk to the County (the lead officer concerned is Neil Gardner) because they have told the developer concerned that they intend to apply this new calculation going forward and it is non-negotiable. Therefore the Section 106 rate per dwelling could be, if the County have their way, in the region of £16,815 per dwelling once Warwick's S106 requirements are added in. This is considerably more than the modest £1,000 per dwelling assumed by DTZ at the stakeholder event in Leamington. Furthermore, Section 106 contributions will always be much greater for larger sites. Therefore using an average may be misleading in terms of calculating the impact on viability as larger sites will have a disproportionately higher s106 liability than smaller and medium sized sites. For this reason we recommend that the model applies a higher level average but not less than £15,000 per dwelling.	Need guidance from WDC here	
2	It is over simplistic to suggest that there is a one size fits all level of s106 obligation. Actual S106 and infrastructure costs will obviously vary from site to site depending upon location, proximity to existing services and the capacity of existing provision. It is possible that because the timing of CIL (if introduced) will create a greater burden than traditionally negotiated planning obligations . Affordable housing obligation need to be part and parcel of these discussions as the viability test is not exclusive to any particular element and where there is a question over viability the Council will need to prioritise. In the presentation given by DTZ it was indicated that you would be testing costs on the development of between £1k and £10k per unit. This is considered very low, especially in light of the fact that we already know that the County Council is currently seeking contributions of between approximately £12k and £14.7k per unit for education alone on large SUE sites in the Warwick area. There is a need to also have regard in the assessment to the fact that the level of contributions very significantly on a site by site basis, with items such as open space maintenance being met on some of the larger sites by the developer but not on smaller sites.		
3	To follow			
3	To follow			
4	These should be provided and agreed by the Warwick District Council (WDC). Payment of such contributions to WDC should be made at initial occupation for the purpose of any development cashflow modelling.			
5	Planning Obligations - the £1000 per unit referred to at the meeting is way too low. For example - we have just received permision on a site for 19 units in Rugby, the Warwickshire CC element is £72,236 for education and £3770 for libraries. Add in POS (23,385) then you have £99,391 or £5,231 per dwelling. I haven't done anything in Warwick recently due to the moratorium but I do not imagine that the average for Warwick will be vastly different as the bulk is made up with WCC contributions. Obviously £5k per dwelling under current policy is a lot more than the £1k/dwelling. We have just submitted an application for a large urban extension to Rugby. This site is to be subject to the new method of calculating education contributions. At the moment they are suggesting that the education contribution would be between £16 million and £20 million for 1300 dwellings, depending on mix. So even the best rate would work out at £12,300 per dwelling just for education and could be as much as £15,386. You need to talk to the County (Neil Gardner) because they have told us point blank that they intend to apply this new calculation going forward. In the future the 106 rate per dwelling could be, if the County have their way, a minimum of £16,815 per dwelling, not £1,000 per dwelling.			

Other

		Stakeholder Comments	DTZ Comments	Warwick DC Comments
4	In addition, the methodology presented to stakeholders did not mention other typical development assumptions such as legal costs (land and sale), professional fees, sales and marketing, etc. I presume that all these will be factored into the model.		Yes	No Comment
4	On what threshold will the assessment be considering an obligation to deliver affordable housing? Sites of 15 dwelling or more? What about the scope for smaller sites? Whilst the economies of scale are some what different for smaller sites to deliver affordable housing, any assessment into the viability of affordable housing should at least also consider the opportunity for smaller sites to contribute.		Thresholds at 15 units will be initially tested but then smaller sites below this threshold will be considered and the viability noted.	No Comment
4	Will DTZ be making any policy recommendations to WDC? If so, such recommendations should highlight that delivering appropriate levels of affordable housing within the forthcoming years will be challenging and that flexibility will be required on the part of the LPA. Any policy recommendation should caveat that where viability is an issue, site specific assessments should be carried out during the planning application process.		DTZ will provide an independant EVA report and will not be drafting policy on behalf of WDC	No Comment


DTZ

2.0 Appendix B – Modelling Analysis

Town Centres

The Town Centre areas of Warwick District Council are identified as Warwick, Leamington Spa and Kenilworth. Each of these areas has been tested at the Baseline, Mid Market and Improved Market Scenario.

Baseline Position

Town Centre
Baseline Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Overall Viability (Green and Amber)**
0%	n/a	100%	0%	0%	100%
10%	50%SR 50%INT	100%	0%	0%	100%
10%	65% SR 35% INT	94%	6%	0%	100%
10%	80% SR 20%INT	89%	11%	0%	100%
20%	50%SR 50%INT	67%	22%	11%	89%
20%	65% SR 35% INT	67%	22%	11%	89%
20%	80% SR 20%INT	61%	22%	17%	83%
25%	50%SR 50%INT	61%	22%	17%	83%
25%	65% SR 35% INT	61%	11%	28%	73%
25%	80% SR 20%INT	44%	22%	33%	66%
30%	50%SR 50%INT	50%	17%	33%	67%
30%	65% SR 35% INT	39%	22%	39%	61%
30%	80% SR 20%INT	33%	11%	56%	44%
35%	50%SR 50%INT	39%	17%	44%	56%
35%	65% SR 35% INT	33%	11%	56%	44%
35%	80% SR 20%INT	33%	0%	67%	33%
40%	50%SR 50%INT	33%	11%	56%	44%
40%	65% SR 35% INT	33%	0%	67%	33%
40%	80% SR 20%INT	28%	6%	67%	33%
50%	50% SR 50% INT	11%	11%	78%	22%
50%	65% SR 35% INT	0%	11%	89%	11%
50%	80%SR 20%INT	0%	0%	100%	0%

If we split the town centres into individual settlements the results are slightly different.

Town Centre - Leamington Spa
Baseline Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Overall Viability (Green and Amber)**
0%	n/a	100%	0%	0%	100%
10%	50%SR 50%INT	100%	0%	0%	100%
10%	65% SR 35% INT	100%	0%	0%	100%
10%	80% SR 20%INT	100%	0%	0%	100%
20%	50%SR 50%INT	100%	0%	0%	100%
20%	65% SR 35% INT	100%	0%	0%	100%
20%	80% SR 20%INT	100%	0%	0%	100%
25%	50%SR 50%INT	100%	0%	0%	100%
25%	65% SR 35% INT	100%	0%	0%	100%
25%	80% SR 20%INT	100%	0%	0%	100%
30%	50%SR 50%INT	100%	0%	0%	100%
30%	65% SR 35% INT	100%	0%	0%	100%
30%	80% SR 20%INT	100%	0%	0%	100%
35%	50%SR 50%INT	100%	0%	0%	100%
35%	65% SR 35% INT	100%	0%	0%	100%
35%	80% SR 20%INT	100%	0%	0%	100%
40%	50%SR 50%INT	100%	0%	0%	100%
40%	65% SR 35% INT	100%	0%	0%	100%
40%	80% SR 20%INT	83%	17%	0%	100%
50%	50% SR 50% INT	33%	33%	33%	66%
50%	65% SR 35% INT	0%	33%	66%	33%
50%	80%SR 20%INT	0%	0%	100%	0%

Town Centre - Warwick
Baseline Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Overall Viability (Green and Amber)**
0%	n/a	100%	0%	0%	100%
10%	50%SR 50%INT	100%	0%	0%	100%
10%	65% SR 35% INT	83%	17%	0%	100%
10%	80% SR 20%INT	67%	33%	0%	100%
20%	50%SR 50%INT	33%	33%	33%	66%
20%	65% SR 35% INT	33%	33%	33%	66%
20%	80% SR 20%INT	17%	33%	50%	50%
25%	50%SR 50%INT	17%	33%	50%	50%
25%	65% SR 35% INT	17%	17%	67%	34%
25%	80% SR 20%INT	0%	33%	67%	33%
30%	50%SR 50%INT	0%	33%	67%	33%
30%	65% SR 35% INT	0%	17%	83%	17%
30%	80% SR 20%INT	0%	0%	100%	0%
35%	50%SR 50%INT	0%	0%	100%	0%
35%	65% SR 35% INT	0%	0%	100%	0%
35%	80% SR 20%INT	0%	0%	100%	0%
40%	50%SR 50%INT	0%	0%	100%	0%
40%	65% SR 35% INT	0%	0%	100%	0%
40%	80% SR 20%INT	0%	0%	100%	0%
50%	50%SR 50%INT	0%	0%	100%	0%
50%	65% SR 35% INT	0%	0%	100%	0%
50%	80% SR 20%INT	0%	0%	100%	0%

Town Centre - Kenilworth
Baseline Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Overall Viability (Green and Amber)**
0%	n/a	100%	0%	0%	100%
10%	50%SR 50%INT	100%	0%	0%	100%
10%	65% SR 35% INT	100%	0%	0%	100%
10%	80% SR 20%INT	100%	0%	0%	100%
20%	50%SR 50%INT	67%	33%	0%	100%
20%	65% SR 35% INT	67%	33%	0%	100%
20%	80% SR 20%INT	67%	33%	0%	100%
25%	50%SR 50%INT	67%	33%	0%	100%
25%	65% SR 35% INT	67%	17%	17%	84%
25%	80% SR 20%INT	33%	33%	33%	66%
30%	50%SR 50%INT	50%	17%	33%	67%
30%	65% SR 35% INT	17%	50%	33%	67%
30%	80% SR 20%INT	0%	33%	67%	33%
35%	50%SR 50%INT	17%	50%	33%	67%
35%	65% SR 35% INT	0%	33%	67%	33%
35%	80% SR 20%INT	0%	0%	100%	0%
40%	50%SR 50%INT	0%	33%	67%	33%
40%	65% SR 35% INT	0%	0%	100%	0%
40%	80% SR 20%INT	0%	0%	100%	0%
50%	50%SR 50%INT	0%	0%	100%	0%
50%	65% SR 35% INT	0%	0%	100%	0%
50%	80% SR 20%INT	0%	0%	100%	0%

Mid Market Position

In the mid market position revenues are increased by 10% from the baseline position and build periods are reduced. The results for the mid market position for the Town Centres is as follows:

Town Centre
Mid Market Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Overall Viability (Green and Amber)**
0%	n/a				0%
10%	50%SR 50%INT	100%	0%	0%	100%
10%	65% SR 35% INT	100%	0%	0%	100%
10%	80% SR 20%INT	100%	0%	0%	100%
20%	50%SR 50%INT	100%	0%	0%	100%
20%	65% SR 35% INT	100%	0%	0%	100%
20%	80% SR 20%INT	100%	0%	0%	100%
25%	50%SR 50%INT	100%	0%	0%	100%
25%	65% SR 35% INT	100%	0%	0%	100%
25%	80% SR 20%INT	100%	0%	0%	100%
30%	50%SR 50%INT	100%	0%	0%	100%
30%	65% SR 35% INT	100%	0%	0%	100%
30%	80% SR 20%INT	83%	17%	0%	100%
35%	50%SR 50%INT	100%	0%	0%	100%
35%	65% SR 35% INT	83%	17%	0%	100%
35%	80% SR 20%INT	78%	17%	6%	94%
40%	50%SR 50%INT	83%	17%	0%	100%
40%	65% SR 35% INT	78%	6%	17%	83%
40%	80% SR 20%INT	67%	11%	22%	78%
50%	50%SR 50%INT	33%	11%	55%	45%
50%	65% SR 35% INT	33%	0%	67%	33%
50%	80% SR 20%INT	33%	0%	67%	33%

Town Centre - Leamington Spa
Mid Market Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Overall Viability (Green and Amber)**
0%	n/a				0%
10%	50%SR 50%INT	100%	0%	0%	100%
10%	65% SR 35% INT	100%	0%	0%	100%
10%	80% SR 20%INT	100%	0%	0%	100%
20%	50%SR 50%INT	100%	0%	0%	100%
20%	65% SR 35% INT	100%	0%	0%	100%
20%	80% SR 20%INT	100%	0%	0%	100%
25%	50%SR 50%INT	100%	0%	0%	100%
25%	65% SR 35% INT	100%	0%	0%	100%
25%	80% SR 20%INT	100%	0%	0%	100%
30%	50%SR 50%INT	100%	0%	0%	100%
30%	65% SR 35% INT	100%	0%	0%	100%
30%	80% SR 20%INT	100%	0%	0%	100%
35%	50%SR 50%INT	100%	0%	0%	100%
35%	65% SR 35% INT	100%	0%	0%	100%
35%	80% SR 20%INT	100%	0%	0%	100%
40%	50%SR 50%INT	100%	0%	0%	100%
40%	65% SR 35% INT	100%	0%	0%	100%
40%	80% SR 20%INT	100%	0%	0%	100%
50%	50%SR 50%INT	100%	0%	0%	100%
50%	65% SR 35% INT	100%	0%	0%	100%
50%	80% SR 20%INT	100%	0%	0%	100%

Town Centre - Warwick
Mid Market Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Overall Viability (Green and Amber)**
0%	n/a				0%
10%	50%SR 50%INT	100%	0%	0%	100%
10%	65% SR 35% INT	100%	0%	0%	100%
10%	80% SR 20%INT	100%	0%	0%	100%
20%	50%SR 50%INT	100%	0%	0%	100%
20%	65% SR 35% INT	100%	0%	0%	100%
20%	80% SR 20%INT	100%	0%	0%	100%
25%	50%SR 50%INT	100%	0%	0%	100%
25%	65% SR 35% INT	100%	0%	0%	100%
25%	80% SR 20%INT	100%	0%	0%	100%
30%	50%SR 50%INT	100%	0%	0%	100%
30%	65% SR 35% INT	100%	0%	0%	100%
30%	80% SR 20%INT	50%	50%	0%	100%
35%	50%SR 50%INT	100%	0%	0%	100%
35%	65% SR 35% INT	50%	50%	0%	100%
35%	80% SR 20%INT	33%	50%	17%	83%
40%	50%SR 50%INT	50%	50%	0%	100%
40%	65% SR 35% INT	33%	17%	50%	50%
40%	80% SR 20%INT	33%	0%	67%	33%
50%	50%SR 50%INT	50%	50%	0%	100%
50%	65% SR 35% INT	33%	17%	50%	50%
50%	80% SR 20%INT	0%	17%	83%	17%

Town Centre - Kenilworth
Mid Market Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Overall Viability (Green and Amber)**
0%	n/a				0%
10%	50%SR 50%INT	100%	0%	0%	100%
10%	65% SR 35% INT	100%	0%	0%	100%
10%	80% SR 20%INT	100%	0%	0%	100%
20%	50%SR 50%INT	100%	0%	0%	100%
20%	65% SR 35% INT	100%	0%	0%	100%
20%	80% SR 20%INT	100%	0%	0%	100%
25%	50%SR 50%INT	100%	0%	0%	100%
25%	65% SR 35% INT	100%	0%	0%	100%
25%	80% SR 20%INT	100%	0%	0%	100%
30%	50%SR 50%INT	100%	0%	0%	100%
30%	65% SR 35% INT	100%	0%	0%	100%
30%	80% SR 20%INT	100%	0%	0%	100%
35%	50%SR 50%INT	100%	0%	0%	100%
35%	65% SR 35% INT	100%	0%	0%	100%
35%	80% SR 20%INT	100%	0%	0%	100%
40%	50%SR 50%INT	100%	0%	0%	100%
40%	65% SR 35% INT	100%	0%	0%	100%
40%	80% SR 20%INT	67%	33%	0%	100%
50%	50%SR 50%INT	0%	0%	100%	0%
50%	65% SR 35% INT	0%	0%	100%	0%
50%	80% SR 20%INT	0%	17%	83%	17%

Improved Market

In this scenario revenues have been inflated by 20% from the baseline figures and build rates have been doubled so developments now take half the time to complete when compared to the baseline rates. The results for the Town Centres are as follows:

Town Centre
Improved Market

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Overall Viability (Green and Amber)**
0%	n/a	100%	0%	0%	100%
10%	50%SR 50%INT	100%	0%	0%	100%
10%	65% SR 35% INT	100%	0%	0%	100%
10%	80% SR 20%INT	100%	0%	0%	100%
20%	50%SR 50%INT	100%	0%	0%	100%
20%	65% SR 35% INT	100%	0%	0%	100%
20%	80% SR 20%INT	100%	0%	0%	100%
25%	50%SR 50%INT	100%	0%	0%	100%
25%	65% SR 35% INT	100%	0%	0%	100%
25%	80% SR 20%INT	100%	0%	0%	100%
30%	50%SR 50%INT	100%	0%	0%	100%
30%	65% SR 35% INT	100%	0%	0%	100%
30%	80% SR 20%INT	100%	0%	0%	100%
35%	50%SR 50%INT	100%	0%	0%	100%
35%	65% SR 35% INT	100%	0%	0%	100%
35%	80% SR 20%INT	100%	0%	0%	100%
40%	50%SR 50%INT	100%	0%	0%	100%
40%	65% SR 35% INT	94%	6%	0%	100%
40%	80% SR 20%INT	72%	28%	0%	100%
50%	50%SR 50%INT	72%	17%	11%	89%
50%	65% SR 35% INT	67%	0%	33%	67%
50%	80% SR 20%INT	61%	6%	33%	67%

Town Centre - Leamington Spa

Improved Market

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Overall Viability (Green and Amber)**
0%	n/a	100%	0%	0%	100%
10%	50%SR 50%INT	100%	0%	0%	100%
10%	65% SR 35% INT	100%	0%	0%	100%
10%	80% SR 20%INT	100%	0%	0%	100%
20%	50%SR 50%INT	100%	0%	0%	100%
20%	65% SR 35% INT	100%	0%	0%	100%
20%	80% SR 20%INT	100%	0%	0%	100%
25%	50%SR 50%INT	100%	0%	0%	100%
25%	65% SR 35% INT	100%	0%	0%	100%
25%	80% SR 20%INT	100%	0%	0%	100%
30%	50%SR 50%INT	100%	0%	0%	100%
30%	65% SR 35% INT	100%	0%	0%	100%
30%	80% SR 20%INT	100%	0%	0%	100%
35%	50%SR 50%INT	100%	0%	0%	100%
35%	65% SR 35% INT	100%	0%	0%	100%
35%	80% SR 20%INT	100%	0%	0%	100%
40%	50%SR 50%INT	100%	0%	0%	100%
40%	65% SR 35% INT	100%	0%	0%	100%
40%	80% SR 20%INT	100%	0%	0%	100%
50%	50%SR 50%INT	100%	0%	0%	100%
50%	65% SR 35% INT	100%	0%	0%	100%
50%	80% SR 20%INT	100%	0%	0%	100%

Town Centre - Warwick

Improved Market

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Overall Viability (Green and Amber)**
0%	n/a	100%	0%	0%	100%
10%	50%SR 50%INT	100%	0%	0%	100%
10%	65% SR 35% INT	100%	0%	0%	100%
10%	80% SR 20%INT	100%	0%	0%	100%
20%	50%SR 50%INT	100%	0%	0%	100%
20%	65% SR 35% INT	100%	0%	0%	100%
20%	80% SR 20%INT	100%	0%	0%	100%
25%	50%SR 50%INT	100%	0%	0%	100%
25%	65% SR 35% INT	100%	0%	0%	100%
25%	80% SR 20%INT	100%	0%	0%	100%
30%	50%SR 50%INT	100%	0%	0%	100%
30%	65% SR 35% INT	100%	0%	0%	100%
30%	80% SR 20%INT	100%	0%	0%	100%
35%	50%SR 50%INT	100%	0%	0%	100%
35%	65% SR 35% INT	100%	0%	0%	100%
35%	80% SR 20%INT	100%	0%	0%	100%
40%	50%SR 50%INT	100%	0%	0%	100%
40%	65% SR 35% INT	100%	0%	0%	100%
40%	80% SR 20%INT	100%	0%	0%	100%
50%	50%SR 50%INT	100%	0%	0%	100%
50%	65% SR 35% INT	100%	0%	0%	100%
50%	80% SR 20%INT	100%	0%	0%	100%

Town Centre - Kenilworth
Improved Market

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Overall Viability (Green and Amber)**
0%	n/a	100%	0%	0%	100%
10%	50%SR 50%INT	100%	0%	0%	100%
10%	65% SR 35% INT	100%	0%	0%	100%
10%	80% SR 20%INT	100%	0%	0%	100%
20%	50%SR 50%INT	100%	0%	0%	100%
20%	65% SR 35% INT	100%	0%	0%	100%
20%	80% SR 20%INT	100%	0%	0%	100%
25%	50%SR 50%INT	100%	0%	0%	100%
25%	65% SR 35% INT	100%	0%	0%	100%
25%	80% SR 20%INT	100%	0%	0%	100%
30%	50%SR 50%INT	100%	0%	0%	100%
30%	65% SR 35% INT	100%	0%	0%	100%
30%	80% SR 20%INT	100%	0%	0%	100%
35%	50%SR 50%INT	100%	0%	0%	100%
35%	65% SR 35% INT	100%	0%	0%	100%
35%	80% SR 20%INT	100%	0%	0%	100%
40%	50%SR 50%INT	100%	0%	0%	100%
40%	65% SR 35% INT	83%	17%	0%	100%
40%	80% SR 20%INT	17%	83%	0%	100%
50%	50%SR 50%INT	17%	50%	33%	67%
50%	65% SR 35% INT	0%	0%	100%	0%
50%	80% SR 20%INT	0%	0%	100%	0%

Summary

The summary position for the Town Centres is as follows:

Market Area	Baseline Market Position	Mid Market Position	Improved Market Position
Town Centre	35% Affordable Housing (50% SR/ 50% Int)	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)
Leamington Spa	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)
Warwick	25% Affordable Housing (50% SR/ 50% Int)	40% Affordable Housing (65% SR/ 35% Int)	40% Affordable Housing (80% SR/ 20% Int)
Kenilworth	35% Affordable Housing (50% SR/ 50% Int)	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)

These summary results have been determined by using a cut off point (tipping point) where 50% (or above) of the sites tested must be viable in order for that percentage of affordable housing to be considered deliverable as this is the majority of the sites. However, Warwick District Council consider that a lower cut off (tipping) point is required to be analysed as their level of need is so acute that they need to secure affordable housing on any sites which show a viable result even if it is just 1% of the sites tested. This changes the results as follows:

Market Area	Baseline Market Position	Mid Market Position	Improved Market Position
Town Centre	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)
Leamington Spa	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)
Warwick	30% Affordable Housing (65% SR/ 35% Int)	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)
Kenilworth	40% Affordable Housing (50% SR/ 50% Int)	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)

It should be noted at this point that this is level of viability which is deliverable assuming no abnormal development costs or allowance for additional section 106 contributions. Both of these elements have the potential to reduce the delivery of affordable housing and on any site specific negotiations both of these factors will need to be taken into account.

Suburban

We have defined the Suburban areas of Warwick District as being the built up areas outside of the town centres. They have then been split into High, Medium and Low value areas with Beacon Areas established for each, upon which detailed market research into property prices have been undertaken.

As with the Town Centres, we have, for the baseline position and each of the market scenarios, presented an overall analysis for the suburban areas followed by analysis focusing on each of the market geographic areas (high, medium and low).

Baseline Position

Suburban Sites
Baseline Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Overall Viability (Green and Amber)**
10%	50%SR 50%INT	33%	6%	61%	39%
10%	65% SR 35% INT	33%	6%	61%	39%
10%	80% SR 20%INT	33%	6%	61%	39%
20%	50%SR 50%INT	28%	6%	67%	33%
20%	65% SR 35% INT	22%	11%	67%	33%
20%	80% SR 20%INT	22%	6%	72%	28%
25%	50%SR 50%INT	22%	0%	78%	22%
25%	65% SR 35% INT	22%	6%	72%	28%
25%	80% SR 20%INT	11%	17%	72%	28%
30%	50%SR 50%INT	11%	11%	78%	22%
30%	65% SR 35% INT	11%	11%	78%	22%
30%	80% SR 20%INT	11%	6%	83%	17%
35%	50%SR 50%INT	11%	0%	89%	11%
35%	65% SR 35% INT	0%	11%	89%	11%
35%	80% SR 20%INT	6%	6%	89%	11%
40%	50%SR 50%INT	6%	6%	89%	11%
40%	65% SR 35% INT	0%	6%	94%	6%
40%	80% SR 20%INT	0%	0%	100%	0%

Suburban Sites - High Value

Baseline Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
10%	50%SR 50%INT	67%	17%	17%	83%
10%	65% SR 35% INT	67%	17%	17%	83%
10%	80% SR 20%INT	67%	17%	17%	83%
20%	50%SR 50%INT	67%	0%	33%	67%
20%	65% SR 35% INT	67%	0%	33%	67%
20%	80% SR 20%INT	67%	0%	33%	67%
25%	50%SR 50%INT	67%	0%	33%	67%
25%	65% SR 35% INT	67%	0%	33%	67%
25%	80% SR 20%INT	33%	33%	33%	67%
30%	50%SR 50%INT	33%	33%	33%	67%
30%	65% SR 35% INT	33%	33%	33%	67%
30%	80% SR 20%INT	33%	17%	50%	50%
35%	50%SR 50%INT	33%	0%	67%	33%
35%	65% SR 35% INT	0%	33%	67%	33%
35%	80% SR 20%INT	17%	17%	67%	33%
40%	50%SR 50%INT	17%	17%	67%	33%
40%	65% SR 35% INT	0%	17%	83%	17%
40%	80% SR 20%INT	0%	0%	100%	0%

Suburban Sites - Mid Value

Baseline Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
10%	50%SR 50%INT	33%	0%	67%	33%
10%	65% SR 35% INT	33%	0%	67%	33%
10%	80% SR 20%INT	33%	0%	67%	33%
20%	50%SR 50%INT	17%	17%	67%	33%
20%	65% SR 35% INT	0%	33%	67%	33%
20%	80% SR 20%INT	0%	17%	83%	17%
25%	50%SR 50%INT	0%	0%	100%	0%
25%	65% SR 35% INT	0%	17%	83%	17%
25%	80% SR 20%INT	0%	17%	83%	17%
30%	50%SR 50%INT	0%	0%	100%	0%
30%	65% SR 35% INT	0%	0%	100%	0%
30%	80% SR 20%INT	0%	0%	100%	0%
35%	50%SR 50%INT	0%	0%	100%	0%
35%	65% SR 35% INT	0%	0%	100%	0%
35%	80% SR 20%INT	0%	0%	100%	0%
40%	50%SR 50%INT	0%	0%	100%	0%
40%	65% SR 35% INT	0%	0%	100%	0%
40%	80% SR 20%INT	0%	0%	100%	0%

Suburban Sites - Low Value
Baseline Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
10%	50%SR 50%INT	0%	0%	100%	0%
10%	65% SR 35% INT	0%	0%	100%	0%
10%	80% SR 20%INT	0%	0%	100%	0%
20%	50%SR 50%INT	0%	0%	100%	0%
20%	65% SR 35% INT	0%	0%	100%	0%
20%	80% SR 20%INT	0%	0%	100%	0%
25%	50%SR 50%INT	0%	0%	100%	0%
25%	65% SR 35% INT	0%	0%	100%	0%
25%	80% SR 20%INT	0%	0%	100%	0%
30%	50%SR 50%INT	0%	0%	100%	0%
30%	65% SR 35% INT	0%	0%	100%	0%
30%	80% SR 20%INT	0%	0%	100%	0%
35%	50%SR 50%INT	0%	0%	100%	0%
35%	65% SR 35% INT	0%	0%	100%	0%
35%	80% SR 20%INT	0%	0%	100%	0%
40%	50%SR 50%INT	0%	0%	100%	0%
40%	65% SR 35% INT	0%	0%	100%	0%
40%	80% SR 20%INT	0%	0%	100%	0%

Mid Market

In the mid market position, revenues are increased by 10% from the baseline position and build periods are reduced. The results for the mid market position for the Suburban areas is as follows:

Suburban Sites
Midmarket Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
0%	n/a	61%	11%	28%	73%
10%	50%SR 50%INT	61%	11%	28%	73%
10%	65% SR 35% INT	61%	0%	39%	61%
10%	80% SR 20%INT	56%	11%	33%	67%
20%	50%SR 50%INT	45%	6%	50%	50%
20%	65% SR 35% INT	39%	17%	44%	56%
20%	80% SR 20%INT	39%	17%	44%	56%
25%	50%SR 50%INT	39%	11%	50%	50%
25%	65% SR 35% INT	39%	11%	50%	50%
25%	80% SR 20%INT	33%	11%	55%	44%
30%	50%SR 50%INT	33%	6%	61%	39%
30%	65% SR 35% INT	33%	11%	55%	44%
30%	80% SR 20%INT	33%	0%	67%	33%
35%	50%SR 50%INT	33%	0%	67%	33%
35%	65% SR 35% INT	22%	11%	67%	33%
35%	80% SR 20%INT	28%	6%	67%	34%
40%	50%SR 50%INT	28%	6%	67%	34%
40%	65% SR 35% INT	22%	6%	72%	28%
40%	80% SR 20%INT	17%	6%	78%	22%

Suburban Sites - High Value
Mid Market Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
0%	n/a				0%
10%	50%SR 50%INT	100%	0%	0%	100%
10%	65% SR 35% INT	100%	0%	0%	100%
10%	80% SR 20%INT	100%	0%	0%	100%
20%	50%SR 50%INT	67%	17%	17%	84%
20%	65% SR 35% INT	67%	33%	0%	100%
20%	80% SR 20%INT	67%	33%	0%	100%
25%	50%SR 50%INT	67%	17%	17%	84%
25%	65% SR 35% INT	67%	17%	17%	84%
25%	80% SR 20%INT	67%	0%	33%	67%
30%	50%SR 50%INT	67%	0%	33%	67%
30%	65% SR 35% INT	67%	0%	33%	67%
30%	80% SR 20%INT	67%	0%	33%	67%
35%	50%SR 50%INT	67%	0%	33%	67%
35%	65% SR 35% INT	67%	0%	33%	67%
35%	80% SR 20%INT	67%	0%	33%	67%
40%	50%SR 50%INT	67%	0%	33%	67%
40%	65% SR 35% INT	67%	0%	33%	67%
40%	80% SR 20%INT	50%	17%	33%	67%

Suburban Sites - Med Value
Midmarket Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
0%	n/a				0%
10%	50%SR 50%INT	67%	17%	17%	84%
10%	65% SR 35% INT	67%	0%	33%	67%
10%	80% SR 20%INT	67%	17%	17%	84%
20%	50%SR 50%INT	67%	0%	33%	67%
20%	65% SR 35% INT	50%	17%	33%	67%
20%	80% SR 20%INT	50%	17%	33%	67%
25%	50%SR 50%INT	50%	17%	33%	67%
25%	65% SR 35% INT	50%	17%	33%	67%
25%	80% SR 20%INT	33%	33%	33%	66%
30%	50%SR 50%INT	33%	17%	50%	50%
30%	65% SR 35% INT	33%	33%	33%	66%
30%	80% SR 20%INT	33%	0%	67%	33%
35%	50%SR 50%INT	33%	0%	67%	33%
35%	65% SR 35% INT	0%	33%	67%	33%
35%	80% SR 20%INT	17%	17%	67%	34%
40%	50%SR 50%INT	17%	17%	67%	34%
40%	65% SR 35% INT	0%	17%	83%	17%
40%	80% SR 20%INT	0%	0%	100%	0%

Suburban Sites - Low Value
Midmarket Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
0%	n/a				0%
10%	50%SR 50%INT	17%	17%	67%	34%
10%	65% SR 35% INT	17%	0%	83%	17%
10%	80% SR 20%INT	0%	17%	83%	17%
20%	50%SR 50%INT	0%	0%	100%	0%
20%	65% SR 35% INT	0%	0%	100%	0%
20%	80% SR 20%INT	0%	0%	100%	0%
25%	50%SR 50%INT	0%	0%	100%	0%
25%	65% SR 35% INT	0%	0%	100%	0%
25%	80% SR 20%INT	0%	0%	100%	0%
30%	50%SR 50%INT	0%	0%	100%	0%
30%	65% SR 35% INT	0%	0%	100%	0%
30%	80% SR 20%INT	0%	0%	100%	0%
35%	50%SR 50%INT	0%	0%	100%	0%
35%	65% SR 35% INT	0%	0%	100%	0%
35%	80% SR 20%INT	0%	0%	100%	0%
40%	50%SR 50%INT	0%	0%	100%	0%
40%	65% SR 35% INT	0%	0%	100%	0%
40%	80% SR 20%INT	0%	0%	100%	0%

Improved Market

In this scenario revenues have been inflated by 20% from the baseline figures and build rates have been doubled so developments now take half the time to complete when compared to the baseline rates.

Suburban Sites
Improved Market
Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
10%	50%SR 50%INT	78%	6%	17%	83%
10%	65% SR 35% INT	78%	6%	17%	83%
10%	80% SR 20%INT	78%	6%	17%	83%
20%	50%SR 50%INT	78%	0%	22%	78%
20%	65% SR 35% INT	78%	0%	22%	78%
20%	80% SR 20%INT	67%	6%	28%	72%
25%	50%SR 50%INT	56%	17%	28%	72%
25%	65% SR 35% INT	56%	17%	28%	72%
25%	80% SR 20%INT	50%	17%	33%	67%
30%	50%SR 50%INT	50%	17%	33%	67%
30%	65% SR 35% INT	45%	17%	39%	61%
30%	80% SR 20%INT	45%	17%	39%	61%
35%	50%SR 50%INT	45%	11%	11%	56%
35%	65% SR 35% INT	39%	11%	17%	50%
35%	80% SR 20%INT	39%	11%	17%	50%
40%	50%SR 50%INT	39%	6%	22%	45%
40%	65% SR 35% INT	39%	6%	22%	45%
40%	80% SR 20%INT	39%	0%	28%	39%
50%	50%SR 50%INT	39%	0%	28%	39%
50%	65% SR 35% INT	33%	6%	28%	39%
50%	80% SR 20%INT	22%	11%	33%	34%

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Suburban Sites - High Value

Improved Market Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
10%	50%SR 50%INT	100%	0%	0%	100%
10%	65% SR 35% INT	100%	0%	0%	100%
10%	80% SR 20%INT	100%	0%	0%	100%
20%	50%SR 50%INT	100%	0%	0%	100%
20%	65% SR 35% INT	100%	0%	0%	100%
20%	80% SR 20%INT	100%	0%	0%	100%
25%	50%SR 50%INT	100%	0%	0%	100%
25%	65% SR 35% INT	100%	0%	0%	100%
25%	80% SR 20%INT	83%	17%	0%	100%
30%	50%SR 50%INT	83%	17%	0%	100%
30%	65% SR 35% INT	67%	33%	0%	100%
30%	80% SR 20%INT	67%	33%	0%	100%
35%	50%SR 50%INT	67%	33%	0%	100%
35%	65% SR 35% INT	67%	17%	17%	84%
35%	80% SR 20%INT	67%	17%	17%	84%
40%	50%SR 50%INT	67%	0%	33%	67%
40%	65% SR 35% INT	67%	0%	33%	67%
40%	80% SR 20%INT	67%	0%	33%	67%
50%	50%SR 50%INT	67%	0%	33%	67%
50%	65% SR 35% INT	67%	0%	33%	67%
50%	80% SR 20%INT	50%	17%	33%	67%

Suburban Sites - Med Value

Improved Market Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
10%	50%SR 50%INT	100%	0%	0%	100%
10%	65% SR 35% INT	100%	0%	0%	100%
10%	80% SR 20%INT	100%	0%	0%	100%
20%	50%SR 50%INT	100%	0%	0%	100%
20%	65% SR 35% INT	100%	0%	0%	100%
20%	80% SR 20%INT	67%	17%	17%	84%
25%	50%SR 50%INT	67%	17%	17%	84%
25%	65% SR 35% INT	67%	17%	17%	84%
25%	80% SR 20%INT	67%	0%	33%	67%
30%	50%SR 50%INT	67%	0%	33%	67%
30%	65% SR 35% INT	67%	0%	33%	67%
30%	80% SR 20%INT	67%	0%	33%	67%
35%	50%SR 50%INT	67%	0%	33%	67%
35%	65% SR 35% INT	50%	17%	33%	67%
35%	80% SR 20%INT	50%	17%	33%	67%
40%	50%SR 50%INT	50%	17%	33%	67%
40%	65% SR 35% INT	50%	17%	33%	67%
40%	80% SR 20%INT	50%	0%	50%	50%
50%	50%SR 50%INT	50%	0%	50%	50%
50%	65% SR 35% INT	33%	17%	50%	50%
50%	80% SR 20%INT	17%	17%	67%	34%

Suburban Sites - Low Value
Improved Market Position

		Number of Sites			
% AH	Tenure Split	Green	Amber	Red	Total Including Amber
10%	50%SR 50%INT	33%	17%	50%	50%
10%	65% SR 35% INT	33%	17%	50%	50%
10%	80% SR 20%INT	33%	17%	50%	50%
20%	50%SR 50%INT	33%	0%	67%	33%
20%	65% SR 35% INT	33%	0%	67%	33%
20%	80% SR 20%INT	33%	0%	67%	33%
25%	50%SR 50%INT	0%	33%	67%	33%
25%	65% SR 35% INT	0%	33%	67%	33%
25%	80% SR 20%INT	0%	33%	67%	33%
30%	50%SR 50%INT	0%	33%	67%	33%
30%	65% SR 35% INT	0%	17%	83%	17%
30%	80% SR 20%INT	0%	17%	83%	17%
35%	50%SR 50%INT	0%	0%	0%	0%
35%	65% SR 35% INT	0%	0%	0%	0%
35%	80% SR 20%INT	0%	0%	0%	0%
40%	50%SR 50%INT	0%	0%	0%	0%
40%	65% SR 35% INT	0%	0%	0%	0%
40%	80% SR 20%INT	0%	0%	0%	0%
50%	50%SR 50%INT	0%	0%	0%	0%
50%	65% SR 35% INT	0%	0%	0%	0%
50%	80% SR 20%INT	0%	0%	0%	0%

Summary

The summary position for the Suburbs is as follows:

Market Area	Baseline Market Position	Mid (Point) Position	Improved Market Position
Overall	0% Affordable Housing	25% Affordable Housing (65% SR/ 35% Int)	35% Affordable Housing (80% SR/ 20% Int)
High Value Areas	30% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)
Medium Value Areas	0% Affordable Housing	30% Affordable Housing (50% SR/ 50% Int)	40% Affordable Housing (80% SR/ 20% Int)
Low Value Areas	0% Affordable Housing	0% Affordable Housing	10% Affordable Housing (80% SR/ 20% Int)

These summary results have been determined by using a cut of point (tipping point) where 50% (or above) of the sites tested must be viable in order for that percentage of affordable housing to be considered deliverable. However, Warwick District Council consider that a lower cut off (tipping) point is required to be analysed as their level of need is so acute that they need to secure affordable housing on any sites which show a viable result even if it is just 1% of the sites tested. This would change the results as follows:

Market Area	Baseline Market Position	Mid (Point) Position	Improved Market Position
Overall	40% Affordable Housing (65% SR/ 35% Int)	40% Affordable Housing (65% SR/ 35% Int)	35% Affordable Housing (80% SR/ 20% Int)
High Value Areas	40% Affordable Housing (65% SR/ 35% Int)	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)
Medium Value Areas	25% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (65% SR/ 35% Int)	40% Affordable Housing (80% SR/ 20% Int)
Low Value Areas	0% Affordable Housing	10% Affordable Housing (80% SR/ 20% Int)	30% Affordable Housing (80% SR/ 20% Int)

It should be noted at this point that this is level of viability which is deliverable assuming no abnormal development costs or allowance for additional section 106 contributions. Both of these elements have the potential to reduce the delivery of affordable housing and on any site specific negotiations both of these factors will need to be taken into account.

Deprived Areas

The Deprived wards of Warwick District Council are identified as those areas which have the poorest performing socio demographic performance of the whole of the District. They are typically located on the outskirts of the town centre and bordering the suburban areas. These areas consist of Cenusus Output Areas which are amongst the worst 30% nationally in the English Indices of Deprivation 2007 (CLG) Each of these areas has been tested at the Baseline, Mid Market and Improved Market Scenario.

Baseline Position

The Baseline results for the Deprived Wards show that no affordable housing in these areas is deliverable at the baseline position. Please see table below:

Deprived Wards
Baseline Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
0%	n/a	0%	0%	100%	0%
10%	50%SR 50%INT	0%	0%	100%	0%
10%	65% SR 35% INT	0%	0%	100%	0%
10%	80% SR 20%INT	0%	0%	100%	0%
20%	50%SR 50%INT	0%	0%	100%	0%
20%	65% SR 35% INT	0%	0%	100%	0%
20%	80% SR 20%INT	0%	0%	100%	0%
25%	50%SR 50%INT	0%	0%	100%	0%
25%	65% SR 35% INT	0%	0%	100%	0%
25%	80% SR 20%INT	0%	0%	100%	0%
30%	50%SR 50%INT	0%	0%	100%	0%
30%	65% SR 35% INT	0%	0%	100%	0%
30%	80% SR 20%INT	0%	0%	100%	0%
35%	50%SR 50%INT	0%	0%	100%	0%
35%	65% SR 35% INT	0%	0%	100%	0%
35%	80% SR 20%INT	0%	0%	100%	0%
40%	50%SR 50%INT	0%	0%	100%	0%
40%	65% SR 35% INT	0%	0%	100%	0%
40%	80% SR 20%INT	0%	0%	100%	0%

Mid Market Position

The position seen in the baseline scenario is replicated in the mid market position with little deliverability or viability in this scenario. Again all scenarios recorded 100% red lights.

Deprived Wards
Mid market Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
0%	n/a	0%	0%	100%	0%
10%	50%SR 50%INT	0%	0%	100%	0%
10%	65% SR 35% INT	0%	0%	100%	0%
10%	80% SR 20%INT	0%	0%	100%	0%
20%	50%SR 50%INT	0%	0%	100%	0%
20%	65% SR 35% INT	0%	0%	100%	0%
20%	80% SR 20%INT	0%	0%	100%	0%
25%	50%SR 50%INT	0%	0%	100%	0%
25%	65% SR 35% INT	0%	0%	100%	0%
25%	80% SR 20%INT	0%	0%	100%	0%
30%	50%SR 50%INT	0%	0%	100%	0%
30%	65% SR 35% INT	0%	0%	100%	0%
30%	80% SR 20%INT	0%	0%	100%	0%
35%	50%SR 50%INT	0%	0%	100%	0%
35%	65% SR 35% INT	0%	0%	100%	0%
35%	80% SR 20%INT	0%	0%	100%	0%
40%	50%SR 50%INT	0%	0%	100%	0%
40%	65% SR 35% INT	0%	0%	100%	0%
40%	80% SR 20%INT	0%	0%	100%	0%

Improved Market Position

Deprived Wards Sites
Improved Market Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
0%	n/a	6%	11%	83%	17%
10%	50%SR 50%INT	6%	11%	83%	17%
10%	65% SR 35% INT	6%	11%	83%	17%
10%	80% SR 20%INT	0%	11%	89%	11%
20%	50%SR 50%INT	0%	0%	100%	0%
20%	65% SR 35% INT	0%	0%	100%	0%
20%	80% SR 20%INT	0%	0%	100%	0%
25%	50%SR 50%INT	0%	0%	100%	0%
25%	65% SR 35% INT	0%	0%	100%	0%
25%	80% SR 20%INT	0%	0%	100%	0%
30%	50%SR 50%INT	0%	0%	100%	0%
30%	65% SR 35% INT	0%	0%	100%	0%
30%	80% SR 20%INT	0%	0%	100%	0%
35%	50%SR 50%INT	0%	0%	100%	0%
35%	65% SR 35% INT	0%	0%	100%	0%
35%	80% SR 20%INT	0%	0%	100%	0%
40%	50%SR 50%INT	0%	0%	100%	0%
40%	65% SR 35% INT	0%	0%	100%	0%
40%	80% SR 20%INT	0%	0%	100%	0%

The improved market position shows some limited tolerance to affordable housing, and so further geographical analysis by value area follows.

Deprived Wards - High Value
Improved Market Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
0%	n/a				0%
10%	50%SR 50%INT	17%	17%	67%	34%
10%	65% SR 35% INT	17%	17%	67%	34%
10%	80% SR 20%INT	0%	33%	67%	33%
20%	50%SR 50%INT	0%	0%	100%	0%
20%	65% SR 35% INT	0%	0%	100%	0%
20%	80% SR 20%INT	0%	0%	100%	0%
25%	50%SR 50%INT	0%	0%	100%	0%
25%	65% SR 35% INT	0%	0%	100%	0%
25%	80% SR 20%INT	0%	0%	100%	0%
30%	50%SR 50%INT	0%	0%	100%	0%
30%	65% SR 35% INT	0%	0%	100%	0%
30%	80% SR 20%INT	0%	0%	100%	0%
35%	50%SR 50%INT	0%	0%	100%	0%
35%	65% SR 35% INT	0%	0%	100%	0%
35%	80% SR 20%INT	0%	0%	100%	0%
40%	50%SR 50%INT	0%	0%	100%	0%
40%	65% SR 35% INT	0%	0%	100%	0%
40%	80% SR 20%INT	0%	0%	100%	0%

Deprived Wards - Med Value
Improved Market Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
0%	n/a				0%
10%	50%SR 50%INT	0%	17%	83%	17%
10%	65% SR 35% INT	0%	17%	83%	17%
10%	80% SR 20%INT	0%	0%	100%	0%
20%	50%SR 50%INT	0%	0%	100%	0%
20%	65% SR 35% INT	0%	0%	100%	0%
20%	80% SR 20%INT	0%	0%	100%	0%
25%	50%SR 50%INT	0%	0%	100%	0%
25%	65% SR 35% INT	0%	0%	100%	0%
25%	80% SR 20%INT	0%	0%	100%	0%
30%	50%SR 50%INT	0%	0%	100%	0%
30%	65% SR 35% INT	0%	0%	100%	0%
30%	80% SR 20%INT	0%	0%	100%	0%
35%	50%SR 50%INT	0%	0%	100%	0%
35%	65% SR 35% INT	0%	0%	100%	0%
35%	80% SR 20%INT	0%	0%	100%	0%
40%	50%SR 50%INT	0%	0%	100%	0%
40%	65% SR 35% INT	0%	0%	100%	0%
40%	80% SR 20%INT	0%	0%	100%	0%

Deprived Wards - Low Value
Improved Market Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
0%	n/a				0%
10%	50%SR 50%INT	0%	0%	100%	0%
10%	65% SR 35% INT	0%	0%	100%	0%
10%	80% SR 20%INT	0%	0%	100%	0%
20%	50%SR 50%INT	0%	0%	100%	0%
20%	65% SR 35% INT	0%	0%	100%	0%
20%	80% SR 20%INT	0%	0%	100%	0%
25%	50%SR 50%INT	0%	0%	100%	0%
25%	65% SR 35% INT	0%	0%	100%	0%
25%	80% SR 20%INT	0%	0%	100%	0%
30%	50%SR 50%INT	0%	0%	100%	0%
30%	65% SR 35% INT	0%	0%	100%	0%
30%	80% SR 20%INT	0%	0%	100%	0%
35%	50%SR 50%INT	0%	0%	100%	0%
35%	65% SR 35% INT	0%	0%	100%	0%
35%	80% SR 20%INT	0%	0%	100%	0%
40%	50%SR 50%INT	0%	0%	100%	0%
40%	65% SR 35% INT	0%	0%	100%	0%
40%	80% SR 20%INT	0%	0%	100%	0%

Summary

The summary position for the Deprived Areas is as follows:

Market Area	Baseline Market Position	Mid (Point) Position	Improved Market Position
Overall	0% Affordable Housing	0% Affordable Housing	0% Affordable Housing
High Value Areas	0% Affordable Housing	0% Affordable Housing	0% Affordable Housing
Medium Value Areas	0% Affordable Housing	0% Affordable Housing	0% Affordable Housing
Low Value Areas	0% Affordable Housing	0% Affordable Housing	0% Affordable Housing

These summary results have been determined by using a cut of point (tipping point) where 50% (or above) of the sites tested must be viable in order for that percentage of affordable housing to be considered deliverable. However, Warwick District Council consider that a lower cut off (tipping) point is required to be analysed as their level of need is so acute that they need to secure affordable housing on any sites which show a viable result even if it is just 1% of the sites tested. This would change the results as follows:

Market Area	Baseline Market Position	Mid (Point) Position	Improved Market Position
Overall	0% Affordable Housing	0% Affordable Housing	10% Affordable Housing (80% SR/ 20% Int)
High Value Areas	0% Affordable Housing	0% Affordable Housing	10% Affordable Housing (80% SR/ 20% Int)
Medium Value Areas	0% Affordable Housing	0% Affordable Housing	0% Affordable Housing
Low Value Areas	0% Affordable Housing	0% Affordable Housing	0% Affordable Housing

It should be noted at this point that this is level of viability which is deliverable assuming no abnormal development costs or allowance for additional section 106 contributions. Both of these elements have the potential to reduce the delivery of affordable housing and on any site specific negotiations both of these factors will need to be taken into account.

Rural Areas

The Rural Areas constitute the largest geographical area of the District. However, the population in this area is smaller than the other areas tested as it is comprised of predominantly smaller settlements as such the market in these areas have been tested separately.

As with the Suburban and Deprived Areas, the Rural Areas has been split into High, Medium and Low value areas with Beacon Areas established upon which market research into property prices have been undertaken (see section 2 of the main report).

As with other area analysis, we have, for the baseline position and each of the market scenarios, presented an overall analysis for the rural areas followed by analysis focusing on each of the market geographic areas (high, medium and low).

Baseline Position

The Baseline results for the Rural Areas as a whole market area show that the current affordable housing policy of 40% affordable housing split 80% social rented, 20% intermediate would be viable on 39% of the sites tested. The majority of the sites (50%) are capable of delivering 35% affordable housing split 50% social rented and 50% intermediate tenure.

Rural Sites
Baseline Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
0%	n/a	67%	22%	11%	89%
10%	50%SR 50%INT	67%	22%	11%	89%
10%	65% SR 35% INT	67%	17%	17%	83%
10%	80% SR 20%INT	67%	11%	22%	78%
20%	50%SR 50%INT	61%	11%	28%	72%
20%	65% SR 35% INT	61%	11%	28%	72%
20%	80% SR 20%INT	56%	17%	28%	72%
25%	50%SR 50%INT	61%	6%	33%	67%
25%	65% SR 35% INT	50%	11%	39%	61%
25%	80% SR 20%INT	39%	22%	39%	61%
30%	50%SR 50%INT	39%	28%	33%	67%
30%	65% SR 35% INT	39%	22%	39%	61%
30%	80% SR 20%INT	33%	17%	50%	50%
35%	50%SR 50%INT	39%	11%	50%	50%
35%	65% SR 35% INT	33%	11%	56%	44%
35%	80% SR 20%INT	28%	17%	56%	44%
40%	50%SR 50%INT	33%	11%	56%	44%
40%	65% SR 35% INT	28%	11%	61%	39%
40%	80% SR 20%INT	28%	11%	61%	39%

In High value areas of the market viability of up to 40% affordable housing was seen, in Medium value areas this fell to 35% and in the low value areas of the suburbs 30% affordable housing was seen.

Rural Sites - High Value
Baseline Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
0%	n/a				0%
10%	50%SR 50%INT	100%	0%	0%	100%
10%	65% SR 35% INT	100%	0%	0%	100%
10%	80% SR 20%INT	100%	0%	0%	100%
20%	50%SR 50%INT	100%	0%	0%	100%
20%	65% SR 35% INT	100%	0%	0%	100%
20%	80% SR 20%INT	100%	0%	0%	100%
25%	50%SR 50%INT	100%	0%	0%	100%
25%	65% SR 35% INT	83%	17%	0%	100%
25%	80% SR 20%INT	83%	17%	0%	100%
30%	50%SR 50%INT	83%	17%	0%	100%
30%	65% SR 35% INT	83%	17%	0%	100%
30%	80% SR 20%INT	83%	17%	0%	100%
35%	50%SR 50%INT	83%	17%	0%	100%
35%	65% SR 35% INT	83%	0%	17%	83%
35%	80% SR 20%INT	83%	0%	17%	83%
40%	50%SR 50%INT	83%	0%	17%	83%
40%	65% SR 35% INT	83%	0%	17%	83%
40%	80% SR 20%INT	83%	0%	17%	83%

Rural Sites - Med Value
Baseline Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
0%	n/a				0%
10%	50%SR 50%INT	66%	34%	0%	100%
10%	65% SR 35% INT	66%	34%	0%	100%
10%	80% SR 20%INT	66%	34%	0%	100%
20%	50%SR 50%INT	66%	34%	17%	100%
20%	65% SR 35% INT	66%	34%	17%	100%
20%	80% SR 20%INT	66%	34%	17%	100%
25%	50%SR 50%INT	66%	17%	17%	83%
25%	65% SR 35% INT	66%	17%	17%	83%
25%	80% SR 20%INT	34%	50%	17%	84%
30%	50%SR 50%INT	34%	50%	17%	84%
30%	65% SR 35% INT	34%	50%	17%	84%
30%	80% SR 20%INT	17%	34%	50%	51%
35%	50%SR 50%INT	27%	17%	50%	44%
35%	65% SR 35% INT	17%	34%	50%	51%
35%	80% SR 20%INT	0%	50%	50%	50%
40%	50%SR 50%INT	17%	34%	50%	51%
40%	65% SR 35% INT	0%	34%	66%	34%
40%	80% SR 20%INT	0%	34%	66%	34%

Rural Sites - Low Value
Baseline Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
0%	n/a				0%
10%	50%SR 50%INT	34%	34%	34%	68%
10%	65% SR 35% INT	34%	17%	50%	51%
10%	80% SR 20%INT	34%	0%	66%	34%
20%	50%SR 50%INT	17%	17%	66%	34%
20%	65% SR 35% INT	17%	17%	66%	34%
20%	80% SR 20%INT	0%	34%	66%	34%
25%	50%SR 50%INT	17%	0%	83%	17%
25%	65% SR 35% INT	0%	0%	100%	0%
25%	80% SR 20%INT	0%	0%	100%	0%
30%	50%SR 50%INT	0%	17%	83%	17%
30%	65% SR 35% INT	0%	0%	100%	0%
30%	80% SR 20%INT	0%	0%	100%	0%
35%	50%SR 50%INT	0%	0%	100%	0%
35%	65% SR 35% INT	0%	0%	100%	0%
35%	80% SR 20%INT	0%	0%	100%	0%
40%	50%SR 50%INT	0%	0%	100%	0%
40%	65% SR 35% INT	0%	0%	100%	0%
40%	80% SR 20%INT	0%	0%	100%	0%

Mid Market

In the mid market position, revenues are increased by 10% from the baseline position and build periods are reduced. The results for the mid market position for the Rural areas are as follows:

Rural Sites
Midmarket Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
0%	n/a				0%
10%	50%SR 50%INT	89%	11%	0%	100%
10%	65% SR 35% INT	89%	11%	0%	100%
10%	80% SR 20%INT	89%	6%	6%	95%
20%	50%SR 50%INT	89%	6%	6%	95%
20%	65% SR 35% INT	89%	6%	6%	95%
20%	80% SR 20%INT	83%	11%	6%	95%
25%	50%SR 50%INT	78%	17%	6%	94%
25%	65% SR 35% INT	72%	22%	6%	94%
25%	80% SR 20%INT	72%	22%	6%	94%
30%	50%SR 50%INT	72%	22%	6%	94%
30%	65% SR 35% INT	72%	17%	11%	89%
30%	80% SR 20%INT	67%	11%	22%	78%
35%	50%SR 50%INT	72%	6%	22%	78%
35%	65% SR 35% INT	67%	11%	22%	78%
35%	80% SR 20%INT	61%	17%	22%	78%
40%	50%SR 50%INT	67%	11%	22%	78%
40%	65% SR 35% INT	61%	6%	33%	67%
40%	80% SR 20%INT	61%	6%	33%	67%

Rural Sites - High Value
Midmarket Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
0%	n/a				0%
10%	50%SR 50%INT	100%	0%	0%	100%
10%	65% SR 35% INT	100%	0%	0%	100%
10%	80% SR 20%INT	100%	0%	0%	100%
20%	50%SR 50%INT	100%	0%	0%	100%
20%	65% SR 35% INT	100%	0%	0%	100%
20%	80% SR 20%INT	100%	0%	0%	100%
25%	50%SR 50%INT	100%	0%	0%	100%
25%	65% SR 35% INT	100%	0%	0%	100%
25%	80% SR 20%INT	100%	0%	0%	100%
30%	50%SR 50%INT	100%	0%	0%	100%
30%	65% SR 35% INT	100%	0%	0%	100%
30%	80% SR 20%INT	100%	0%	0%	100%
35%	50%SR 50%INT	100%	0%	0%	100%
35%	65% SR 35% INT	100%	0%	0%	100%
35%	80% SR 20%INT	100%	0%	0%	100%
40%	50%SR 50%INT	100%	0%	0%	100%
40%	65% SR 35% INT	100%	0%	0%	100%
40%	80% SR 20%INT	100%	0%	0%	100%

Rural Sites - Med Value
Midmarket Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
0%	n/a				0%
10%	50%SR 50%INT	100%	0%	0%	100%
10%	65% SR 35% INT	100%	0%	0%	100%
10%	80% SR 20%INT	100%	0%	0%	100%
20%	50%SR 50%INT	100%	0%	0%	100%
20%	65% SR 35% INT	100%	0%	0%	100%
20%	80% SR 20%INT	83%	17%	0%	100%
25%	50%SR 50%INT	83%	17%	0%	100%
25%	65% SR 35% INT	83%	17%	0%	100%
25%	80% SR 20%INT	83%	17%	0%	100%
30%	50%SR 50%INT	83%	17%	0%	100%
30%	65% SR 35% INT	83%	0%	17%	83%
30%	80% SR 20%INT	83%	0%	17%	83%
35%	50%SR 50%INT	83%	0%	17%	83%
35%	65% SR 35% INT	83%	0%	17%	83%
35%	80% SR 20%INT	83%	0%	17%	83%
40%	50%SR 50%INT	83%	0%	17%	83%
40%	65% SR 35% INT	83%	0%	17%	83%
40%	80% SR 20%INT	67%	17%	17%	84%

Rural Sites - Low Value
Midmarket Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
0%	n/a				0%
10%	50%SR 50%INT	67%	33%	0%	100%
10%	65% SR 35% INT	67%	33%	0%	100%
10%	80% SR 20%INT	67%	17%	17%	84%
20%	50%SR 50%INT	67%	17%	17%	84%
20%	65% SR 35% INT	67%	17%	17%	84%
20%	80% SR 20%INT	67%	17%	17%	84%
25%	50%SR 50%INT	50%	33%	17%	83%
25%	65% SR 35% INT	33%	50%	17%	83%
25%	80% SR 20%INT	33%	50%	17%	83%
30%	50%SR 50%INT	33%	50%	17%	83%
30%	65% SR 35% INT	33%	50%	17%	83%
30%	80% SR 20%INT	17%	33%	50%	50%
35%	50%SR 50%INT	33%	17%	50%	50%
35%	65% SR 35% INT	17%	33%	50%	50%
35%	80% SR 20%INT	0%	50%	50%	50%
40%	50%SR 50%INT	17%	33%	50%	50%
40%	65% SR 35% INT	0%	17%	83%	17%
40%	80% SR 20%INT	0%	33%	67%	33%

Improved Market

In this scenario revenues have been inflated by 20% from the baseline figures and build rates have been doubled so developments now take half the time to complete when compared to the baseline rates. The results for the Rural areas as a whole are as follows:

Rural Sites
Improved Market Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
10%	50%SR 50%INT	100%	0%	0%	100%
10%	65% SR 35% INT	100%	0%	0%	100%
10%	80% SR 20%INT	100%	0%	0%	100%
20%	50%SR 50%INT	94%	6%	0%	100%
20%	65% SR 35% INT	94%	6%	0%	100%
20%	80% SR 20%INT	94%	6%	0%	100%
25%	50%SR 50%INT	94%	6%	0%	100%
25%	65% SR 35% INT	94%	0%	6%	94%
25%	80% SR 20%INT	94%	0%	6%	94%
30%	50%SR 50%INT	94%	0%	6%	94%
30%	65% SR 35% INT	89%	6%	6%	94%
30%	80% SR 20%INT	89%	6%	6%	94%
35%	50%SR 50%INT	89%	6%	6%	94%
35%	65% SR 35% INT	83%	11%	6%	95%
35%	80% SR 20%INT	83%	11%	6%	95%
40%	50%SR 50%INT	83%	6%	11%	89%
40%	65% SR 35% INT	83%	6%	11%	89%
40%	80% SR 20%INT	83%	6%	11%	89%

Rural Sites - High Value
Improved Market
Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
10%	50%SR 50%INT	100%	0%	0%	100%
10%	65% SR 35% INT	100%	0%	0%	100%
10%	80% SR 20%INT	100%	0%	0%	100%
20%	50%SR 50%INT	100%	0%	0%	100%
20%	65% SR 35% INT	100%	0%	0%	100%
20%	80% SR 20%INT	100%	0%	0%	100%
25%	50%SR 50%INT	100%	0%	0%	100%
25%	65% SR 35% INT	100%	0%	0%	100%
25%	80% SR 20%INT	100%	0%	0%	100%
30%	50%SR 50%INT	100%	0%	0%	100%
30%	65% SR 35% INT	100%	0%	0%	100%
30%	80% SR 20%INT	100%	0%	0%	100%
35%	50%SR 50%INT	100%	0%	0%	100%
35%	65% SR 35% INT	100%	0%	0%	100%
35%	80% SR 20%INT	100%	0%	0%	100%
40%	50%SR 50%INT	100%	0%	0%	100%
40%	65% SR 35% INT	100%	0%	0%	100%
40%	80% SR 20%INT	100%	0%	0%	100%
50%	50%SR 50%INT	100%	0%	0%	100%
50%	65% SR 35% INT	100%	0%	0%	100%
50%	80% SR 20%INT	83%	17%	0%	100%

Rural Sites - Med Value
Improved Market
Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
10%	50%SR 50%INT	100%	0%	0%	100%
10%	65% SR 35% INT	100%	0%	0%	100%
10%	80% SR 20%INT	100%	0%	0%	100%
20%	50%SR 50%INT	100%	0%	0%	100%
20%	65% SR 35% INT	100%	0%	0%	100%
20%	80% SR 20%INT	100%	0%	0%	100%
25%	50%SR 50%INT	100%	0%	0%	100%
25%	65% SR 35% INT	100%	0%	0%	100%
25%	80% SR 20%INT	100%	0%	0%	100%
30%	50%SR 50%INT	100%	0%	0%	100%
30%	65% SR 35% INT	83%	17%	0%	100%
30%	80% SR 20%INT	83%	17%	0%	100%
35%	50%SR 50%INT	83%	17%	0%	100%
35%	65% SR 35% INT	83%	17%	0%	100%
35%	80% SR 20%INT	83%	17%	0%	100%
40%	50%SR 50%INT	83%	0%	17%	83%
40%	65% SR 35% INT	83%	0%	17%	83%
40%	80% SR 20%INT	83%	0%	17%	83%
50%	50%SR 50%INT	83%	17%	0%	100%
50%	65% SR 35% INT	83%	0%	17%	83%
50%	80% SR 20%INT	67%	17%	17%	84%

Rural Sites - Low Value
Improved Market
Position

		Number of Sites			
% AH	**Tenure Split**	**Green**	**Amber**	**Red**	**Total Including Amber**
10%	50%SR 50%INT	100%	0%	0%	100%
10%	65% SR 35% INT	100%	0%	0%	100%
10%	80% SR 20%INT	100%	0%	0%	100%
20%	50%SR 50%INT	83%	17%	0%	100%
20%	65% SR 35% INT	83%	17%	0%	100%
20%	80% SR 20%INT	83%	17%	0%	100%
25%	50%SR 50%INT	83%	17%	0%	100%
25%	65% SR 35% INT	83%	0%	17%	83%
25%	80% SR 20%INT	83%	0%	17%	83%
30%	50%SR 50%INT	83%	0%	17%	83%
30%	65% SR 35% INT	83%	0%	17%	83%
30%	80% SR 20%INT	83%	0%	17%	83%
35%	50%SR 50%INT	83%	0%	17%	83%
35%	65% SR 35% INT	67%	17%	17%	84%
35%	80% SR 20%INT	67%	17%	17%	84%
40%	50%SR 50%INT	67%	17%	17%	84%
40%	65% SR 35% INT	67%	17%	17%	84%
40%	80% SR 20%INT	67%	17%	17%	84%
50%	50%SR 50%INT	50%	17%	33%	67%
50%	65% SR 35% INT	50%	17%	33%	67%
50%	80% SR 20%INT	33%	17%	50%	50%

Summary

The summary position for the Rural Areas is as follows:

Market Area	Baseline Market Position	Mid (Point) Position	Improved Market Position
Overall	35% Affordable Housing (50% SR/ 50% Int)	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)
High Value Areas	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)
Medium Value Areas	40% Affordable Housing (50% SR/ 50% Int)	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)
Low Value Areas	10% Affordable Housing (65% SR/ 35% Int)	40% Affordable Housing (50% SR/ 50% Int)	40% Affordable Housing (80% SR/ 20% Int)

These summary results have been determined by using a cut of point (tipping point) where 50% (or above) of the sites tested must be viable in order for that percentage of affordable housing to be considered deliverable. However, Warwick District Council consider that a lower cut off (tipping) point is required to be analysed as their level of need is so acute that they need to secure affordable housing on any sites which show a viable result even if it is just 1% of the sites tested. This would change the results as follows:

Market Area	Baseline Market Position	Mid (Point) Position	Improved Market Position
Overall	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)
High Value Areas	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)
Medium Value Areas	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)
Low Value Areas	30% Affordable Housing (50% SR/ 50% Int)	40% Affordable Housing (80% SR/ 20% Int)	40% Affordable Housing (80% SR/ 20% Int)

It should be noted at this point that this is level of viability which is deliverable assuming no abnormal development costs or allowance for additional section 106 contributions. Both of these elements have the potential to reduce the delivery of affordable housing and on any site specific negotiations both of these factors will need to be taken into account.

3.0 Appendix C – Site Threshold Analysis

Threshold Analysis

Overall Town Centre

Baseline Position		Number of Units														
% AH	Tenure Split	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
0%	n/a															
10%	80% SR 20%INT															
10%	65% SR 35% INT															
10%	50%SR 50%INT															
20%	80% SR 20%INT															
20%	65% SR 35% INT															
20%	50%SR 50%INT															
25%	80% SR 20%INT															
25%	65% SR 35% INT															
25%	50%SR 50%INT															
30%	80% SR 20%INT															
30%	65% SR 35% INT															
30%	50%SR 50%INT															
35%	80% SR 20%INT															
35%	65% SR 35% INT															
35%	50%SR 50%INT															
40%	80% SR 20%INT															
40%	65% SR 35% INT															
40%	50%SR 50%INT															

Leamington Spa

Baseline Position		Number of Units														
% AH	Tenure Split	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
0%	n/a															
10%	80% SR 20%INT															
10%	65% SR 35% INT															
10%	50%SR 50%INT															
20%	80% SR 20%INT															
20%	65% SR 35% INT															
20%	50%SR 50%INT															
25%	80% SR 20%INT															
25%	65% SR 35% INT															
25%	50%SR 50%INT															
30%	80% SR 20%INT															
30%	65% SR 35% INT															
30%	50%SR 50%INT															
35%	80% SR 20%INT															
35%	65% SR 35% INT															
35%	50%SR 50%INT															
40%	80% SR 20%INT															
40%	65% SR 35% INT															
40%	50%SR 50%INT															

Warwick

Baseline Position		Number of Units														
% AH	Tenure Split	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
0%	n/a															
10%	80% SR 20%INT															
10%	65% SR 35% INT															
10%	50%SR 50%INT															
20%	80% SR 20%INT															
20%	65% SR 35% INT															
20%	50%SR 50%INT															
25%	80% SR 20%INT															
25%	65% SR 35% INT															
25%	50%SR 50%INT															
30%	80% SR 20%INT															
30%	65% SR 35% INT															
30%	50%SR 50%INT															
35%	80% SR 20%INT															
35%	65% SR 35% INT															
35%	50%SR 50%INT															
40%	80% SR 20%INT															
40%	65% SR 35% INT															
40%	50%SR 50%INT															

Kenilworth

Baseline Position		Number of Units														
% AH	Tenure Split	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
0%	n/a															
10%	80% SR 20%INT															
10%	65% SR 35% INT															
10%	50%SR 50%INT															
20%	80% SR 20%INT															
20%	65% SR 35% INT															
20%	50%SR 50%INT															
25%	80% SR 20%INT															
25%	65% SR 35% INT															
25%	50%SR 50%INT															
30%	80% SR 20%INT															
30%	65% SR 35% INT															
30%	50%SR 50%INT															
35%	80% SR 20%INT															
35%	65% SR 35% INT															
35%	50%SR 50%INT															
40%	80% SR 20%INT															
40%	65% SR 35% INT															
40%	50%SR 50%INT															

Overall Suburban
Baseline Position

% AH	Tenure Split	Number of Units														
		15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
0%	n/a															
10%	80% SR 20%INT															
10%	65% SR 35% INT															
10%	50%SR 50%INT															
20%	80% SR 20%INT															
20%	65% SR 35% INT															
20%	50%SR 50%INT															
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30%	65% SR 35% INT															
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35%	80% SR 20%INT															
35%	65% SR 35% INT															
35%	50%SR 50%INT															
40%	80% SR 20%INT															
40%	65% SR 35% INT															
40%	50%SR 50%INT															

Overall Rural
Baseline Position

% AH	Tenure Split	Number of Units														
		15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
0%	n/a															
10%	80% SR 20%INT															
10%	65% SR 35% INT															
10%	50%SR 50%INT															
20%	80% SR 20%INT															
20%	65% SR 35% INT															
20%	50%SR 50%INT															
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35%	50%SR 50%INT															
40%	80% SR 20%INT															
40%	65% SR 35% INT															
40%	50%SR 50%INT															

Warwick District Council

Affordable Housing Viability Assessment Appendices

Appendix D:
Summary of Stakeholder Consultation, Wednesday 9th November

30 November, 2011

DTZ
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Birmingham
B4 6AJ

Jon Turner (jonathan.d.turner@dtz.com)
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1.0 The Event

Following the completion of the final draft of Affordable Housing Viability Assessment for Warwick District, a final Stakeholder Consultation event was held at the Town Hall, The Parade, Leamington Spa on **Thursday 3rd November.**

The consultation event was held in conjunction with GL Hearn, who have produced a Strategic Housing Market Assessment for Warwick District Council (WDC).

The two studies will form important, complementary, items of evidence to the Council's new Local Plan, with regard to affordable housing policy, and will also inform housing strategy. A joint presentation event was deemed ideal in order to provide an opportunity for stakeholders to consider and comment on the reports' findings with the benefit of being considered alongside each other.

2.0 In attendance

A list of registering attendees (excluding consultants and WDC project officers) is presented below.

Name	Organisation
Mike Downes	Antony Aspbury Associates Ltd
Nick Barlow	Barlow Associates Limited
Joy Taylor	Bromford Housing Group
Olivier Spencer	Capita Symonds
Lina Patel	Coventry City Council
Mark Andrews	Coventry City Council
David Holt	D & P Holt Ltd
Oliver Taylor	Framptons
Jonathan Collis	Grevayne Properties Limited
Michael Askew	Lambert Smith Hampton
Kelly Ford	Nuneaton and Bedworth Council
Tim Lawrence	Savills (L&P) Ltd
Mr Robert Linnell	Savills (L&P) Ltd
Stephanie Chettle	Stratford on Avon District Council
Neil Trollope	Terence O'Rourke Ltd
Miss Lisa Matthewson	The Planning Bureau Ltd
Bill Wareing	Wareing and Company
Councillor Wilkinson	Warwick District Council
Councillor Dean	Warwick District Council
Paul Hughes	Warwick District Council
Matthew Scott	Warwick University
Tim Willis	Warwickshire County Council
Ciaran Power	Warwickshire County Council
Tony Lyons	Warwickshire County Council
Neil Gilliver	Warwickshire Rural Housing Association
Roy Mowbray	Waterloo Housing Group
Elaine Mark	WM Housing Group
Tim Good	Orbit Homes
Alistair Clark	A C Lloyd
D Wynne	A C Lloyd

3.0 The presentations

DTZ presented a summary of their methodology and findings with regard to the initial study.

An outline of the method behind the addendum report considering the impact of affordable rent was also presented, alongside key issues facing the implementation of this affordable tenure type in Warwick District. As the findings of the affordable rent study where only at the working draft stage, it was not considered appropriate for the emerging findings to be considered at the stakeholder event.

A notable aspect that the DTZ presentation emphasised was how, aside from variations dues to tenure mix, the level and blend of affordable housing that the modelling suggested could be supported varied subject to the following:

- Market scenarios (base position, improved market position, and mid market position)

- How site viability results per site in each market situation (market area and market scenario) are interpreted for each affordable housing mix – (Viability shown at 1% of sites in a market situation being interpreted as indicating viability at the tested affordable housing mix **or** a higher threshold of 50% of such sites being shown as viable being required to indicate viability at the tested affordable housing mix)

- The degree to which the viability results are blended by geography (for example, a district wide affordable housing target, or set by market area?)

After the DTZ presentation, GL Hearn set out the results from their study. A notable finding of the SHMA study was the size of the shortfall of genuine affordable housing - 698 homes a year, especially when set against new build housing supply (all tenures), which at the most recent annual peak (2005/6) was 782.

4.0 Outcomes of the Day

Questions were asked by stakeholders as to what level of affordable housing DTZ would recommend. DTZ re-iterated that it was not the purpose of the Study to suggest a policy based on its findings, rather to set out a variety of worked scenarios / contexts for WDC to consider alongside other evidence, especially the SHMA. For example, clearly the SHMA was demonstrating a high level of need, and this made the 1% viability threshold testing a legitimate line of enquiry for the DTZ modelling, though it was not the role of the DTZ to advise on the merits or otherwise of adopting this analytical thread to help inform affordable housing policy.

It was agreed that the DTZ presentation slides would be circulated to stakeholders for information purposes.