Affordable Housing Viability Study

East Staffordshire Borough Council

Final Report

October 2010

fordham RESEARCH

Executive summary

Introduction

S1 Fordham Research was commissioned by East Staffordshire Borough Council to carry out a study of affordable housing viability in the Borough. The Viability Study is intended to inform ongoing work on the preparation of the Local Development Framework (LDF).

S2 Government Guidance in Planning Policy Statement 3: Housing (PPS3, 2006, para 29) requires Councils to set a *'Plan-wide'* affordable housing target, and to test this for *'deliverability'* by means of the '*economic viability of land for housing within the area'*.

Summary findings

S3 We have taken a strategic approach ensuring in particular that the sites were treated consistently. This is because the analysis is designed to test and demonstrate Borough-wide deliverability in line with the requirements in national guidance. This work is a strategic study designed to inform the development of Plan policy, rather than per se, as an exercise to predict as accurately as possible the actual financial outcomes of development on specific sites. The sites used in the study should be regarded as indicating more general patterns of development across the study area.

S4 The results from the appraisals indicate that at current market values and costs it would be possible to sustain a target of 15% affordable housing, with no grant, across the study area as a whole.

S5 With our base assumptions, under present market conditions only thirteen of the 19 sites were viable even with no affordable housing. We estimate that ten of those sites remain viable at 15% affordable, with one of the other three being marginal. In our view, a 15% target across the area as a whole is reasonable in the present (March 2010) market. With a 20% target, only seven sites would be fully viable.

S6 It would be possible to set a higher target, of 30%, for the rural area alone, with lower targets of 15% for the Urban Extension at Burton (or one of similar scale at Uttoxeter) and 10% for other urban sites.

The approach to valuation

S7 The study involved preparing financial appraisals for a representative range of sites. These appraisals assessed the capacity of such sites throughout East Staffordshire to support different levels of affordable housing. The approach was to 'model' viability using a range of variables and our bespoke spreadsheet software.

S8 It was decided that for East Staffordshire the required guidance on viability would best be achieved by looking at a range of site sizes, and at a combination of actual and notional sites. In discussion with the Council, it was decided that a total of 19 representative sites should be examined, and this number would provide some scope for exploring viability on sites below the current national guidance size threshold of 15 dwellings.

S9 The key features were:

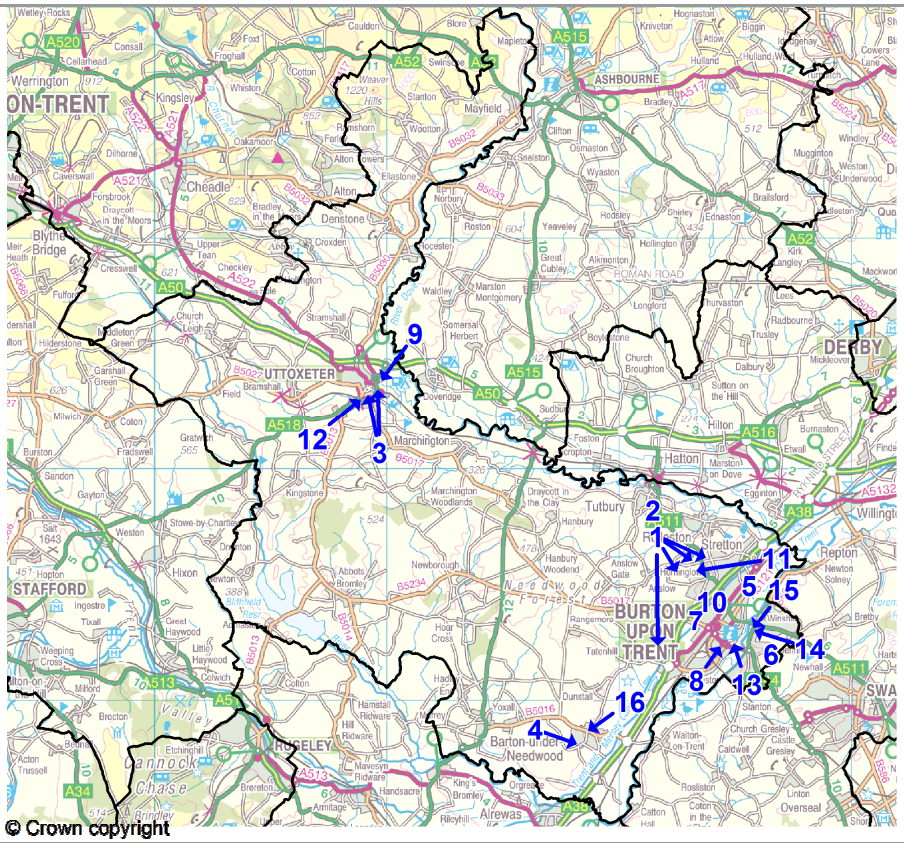
i) A final list of 15 actual and four notional sites was established in discussion with the Council. It was chosen to give a range of typical development situations, an appropriate balance between previous uses, a range of site sizes and to give coverage across the three sub-areas of Burton on Trent, Uttoxeter, and the rural parts of the Borough.

ii) The sites ranged in size from four to 2,000 dwellings. All but five sites were on previously developed land.

iii) Whilst four of the actual sites were subject to a planning application, the majority were either proposed sites or potential proposed sites in the ongoing planning process

S10 There were 16 main sites, one notional and 15 actual, and three additional small rural notional sites. The main sites' locations are shown below:

Figure S1 Site locations



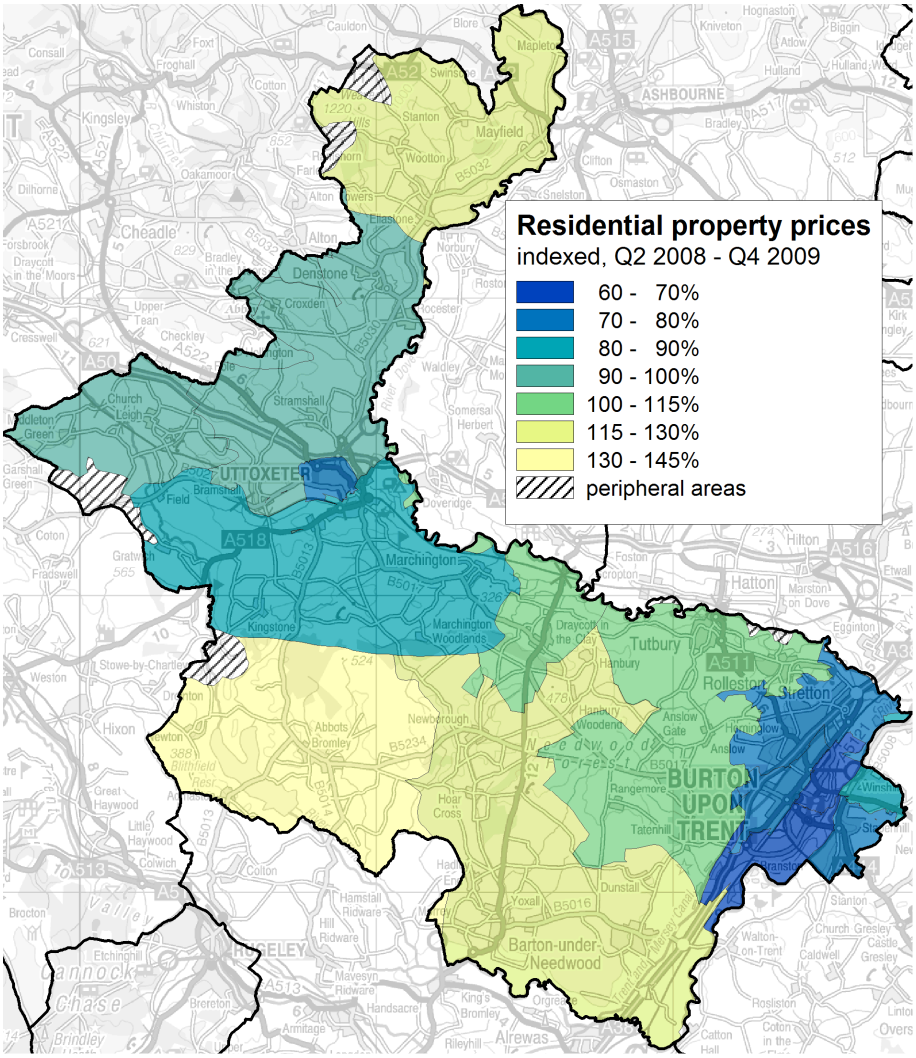
Source: Affordable Housing Viability Study 2010 Figure 2.1 in this report

S11 The main sites total 3,586 dwellings on a net area of 84.1 ha, at an average density of 42 dwellings per ha net. There is a good range of site size, including three sites under the national threshold guidance size of 15 dwellings. All of the sites are wholly residential.

S12 A typical brownfield development in the Council area might generate 15,500 sq ft per acre (3,550 sq m/ha). This standard 'development density' was varied downwards for sites in more suburban situations, and upwards in a few others, so as to provide the most plausible development scenario on each site, and ensuring that they were representative of development opportunities in the area.

S13 A wide range of data was collected about housing in East Staffordshire: this included prices and land values. The map below illustrates house price variations across the Council area:

Figure S2 Postcode price indices



Indices compare prices to value for median postcode sector in England & Wales

Source: Affordable Housing Viability Study 2010 Figure 4.1 in this report

Testing sites for viability assessment

S14 In order to provide reliable evidence on deliverability, the sites were to be examined under a range of assumptions about the key factors affecting viability:

i) Affordable housing target levels of 10%, 20%, 30%, and 40% and no affordable housing

ii) Affordable housing split: 70% social rented and 30% intermediate

iii) Land values for alternative uses for the sites: clearly the site viability cannot plausibly fall below the level of alternative use, and so this must be established

iv) Assuming that no Social Housing Grant (SHG) would be routinely available

v) The calculations assume levels of developer contributions ('planning gain') equivalent to a comparatively modest level of £3,000 per dwelling for each scheme

vi) Level 3 of the Code for Sustainable Homes (CSH) was assumed, to reflect what will be a requirement from 2010, but also the RSS requirement for 10% renewable energy

vii) Abnormal costs were assessed and the figures taken into account where information collected for the sites indicated they were likely to arise.

S15 The appraisals considered viability for two variant scenarios with regard to future changes in price and cost levels. The first reflected a short-term decline (prices falling 10% relative to build) and the second a return to conditions equivalent to the autumn 2007 market peak (prices rising 19% and costs falling by 6%). We also considered the impact of different assumptions for tenure split, for a higher sustainable standard (CSH Level 4) and for a higher level of planning gain contribution.

S16 Clearly this range of elements generated a large range of possible outcomes. Those outcomes were assessed through our bespoke valuation methodology to indicate 'residual land values'. This is the standard approach, and assumes that all costs and returns are measured, except for the land value outcome. The latter is the key variable. It can then be compared with other scenarios and with alternative use values. The latter are commonly agricultural in rural areas and industrial/warehousing in urban locations.

Appraisal outcomes

S17 To assess viability, the value of the land for the particular residential scheme adopted needs to be compared to the alternative use value to determine if there is another use which would derive more revenue for the landowner. If the assessed value does not exceed the alternative use value then the development is not viable. If the excess above alternative use value (the 'cushion') is sufficiently large the development is judged viable; if not, then it is marginal.

S18 For the purpose of a strategic study like the present one it is necessary to take a comparatively simplistic approach to determining the alternative use value. In practice a wide range of considerations could influence the precise value that should apply in each case, and at the end of extensive analysis the outcome might still be contentious.

S19 Our 'model' approach to alternative use value is outlined below:

i) For sites previously in agricultural use, then agricultural land represents the existing use value

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

iii) Where the site is occupied by buildings capable of beneficial use we would estimate their broad value

iv) Existing use as garden land would have a value greater than agricultural but significantly less than industrial, unless it could feasibly be developed in an industrial or commercial use

S20 The level of the 'cushion' was set at £40,000 per acre – just over 25% of the industrial/warehousing benchmark value – for brownfield sites, but doubled to £80,000 for land in agricultural use.

S21 Applying this approach, the results for the 19 sites are shown in the table below:

Table S1 Appraisal outcomes: base appraisals, zero grant

No	Site	Value £k per acre					
		Alt use value	No affordable	10%	20%	30%	40%
1	Burton UE	10	167	121	74	27	-21
		90	VIABLE	VIABLE	MARGINAL	MARGINAL	NOT VIAB
2	Village large GF	10	280	223	165	107	48
		90	VIABLE	VIABLE	VIABLE	VIABLE	MARGINAL
3	Large urban BF	150	300	212	124	35	-57
		190	VIABLE	VIABLE	NOT VIAB	NOT VIAB	NOT VIAB
4	Village large GF	10	422	352	281	209	137
		90	VIABLE	VIABLE	VIABLE	VIABLE	VIABLE
5	Large urban BF	150	147	86	25	-40	-105
		190	NOT VIAB	NOT VIAB	NOT VIAB	NOT VIAB	NOT VIAB
6	Urban edge BF	150	300	228	155	82	8
		190	VIABLE	VIABLE	MARGINAL	NOT VIAB	NOT VIAB
7	Large urban BF	150	162	86	9	-72	-153
		190	MARGINAL	NOT VIAB	NOT VIAB	NOT VIAB	NOT VIAB
8	Inner urban BF	150	110	34	-44	-123	-204
		190	NOT VIAB	NOT VIAB	NOT VIAB	NOT VIAB	NOT VIAB
9	Small urban BF	150	212	139	73	-1	-76
		90	VIABLE	MARGINAL	NOT VIAB	NOT VIAB	NOT VIAB
10	Small urban BF	200	188	132	74	14	-48
		240	NOT VIAB	NOT VIAB	NOT VIAB	NOT VIAB	NOT VIAB
11	Urban edge GF	50	408	337	266	195	124
		130	VIABLE	VIABLE	VIABLE	VIABLE	MARGINAL
12	Small urban BF	118	220	146	66	-15	-98
		158	VIABLE	MARGINAL	NOT VIAB	NOT VIAB	NOT VIAB
13	Town centre BF	150	-508	-633	-760	-885	-1,021
		190	NOT VIAB	NOT VIAB	NOT VIAB	NOT VIAB	NOT VIAB
14	Small urban BF	150	326	249	172	95	16
		190	VIABLE	VIABLE	MARGINAL	NOT VIAB	NOT VIAB
15	Small urban BF	150	120	52	-16	-86	-156
		190	NOT VIAB	NOT VIAB	NOT VIAB	NOT VIAB	NOT VIAB
16	Village BF	150	474	353	232	110	-14
		190	VIABLE	VIABLE	VIABLE	NOT VIAB	NOT VIAB
A	Rural 1	150	512	420	316	213	107
		190	VIABLE	VIABLE	VIABLE	VIABLE	NOT VIAB
B	Rural 2	100	506	426	335	243	151
		140	VIABLE	VIABLE	VIABLE	VIABLE	MARGINAL
C	Rural 3	50	488	398	309	219	129
		130	VIABLE	VIABLE	VIABLE	VIABLE	MARGINAL

Source: Affordable Housing Viability Study 2010 Figure 6.3 in this report

S22 The results can be summarised as follows:

i) At 100% market housing, 13 sites were fully viable and five unviable (with a further one being marginal). At 10% affordable housing 11 of these 13 were still viable, the two others becoming marginal.

ii) At 20% seven were viable, with three marginal. At 30% six were viable with one marginal. By 40% only one site was still viable, although four remained marginal.

S23 Sensitivity testing suggests that at conditions much closer to the peak viability level of autumn 2007, with prices almost 20% higher than those assumed in our study and costs 5% or more lower, all but one of the 19 schemes would have been comfortably viable at the 20% target level, and all but three at 30%. Even at 40% two thirds of the sites are viable.

S24 Conversely, sensitivity testing also suggests that should prices fall by 10% relative to costs, then only six schemes would be viable at the 10% level, with one marginal.

Recommended target

S25 The appraisal results suggest that at current prices and costs, and on the base assumptions used, the highest target that could be applied generally across the area would be 15%.

S26 A higher figure of 30% could reasonably be applied as a sub-target in the rural parts of the area. However, a corresponding sub-target would then be required for the urban parts. The appraisal results suggested that a 15% target could be applied to the Burton urban extension (or one of similar scale at Uttoxeter), and a figure of 10% to urban brownfield sites.

Size thresholds

S27 The national minimum threshold for site sizes to which affordable targets apply is 15 dwellings (PPS3). But provision is made for lower thresholds where appropriate. In East Staffs the scope for a reduction is mainly in the rural area, and whilst we looked at six sites altogether below the national minimum, two of these were in Burton and only four were rural. These four ranged from eight down to four dwellings.

S28 The four small rural sites were just as viable up to 20% as the larger rural sites, although they did slightly less well at 30% plus.

S29 We concluded from the analysis that there is indeed scope for reducing thresholds. We recommended that if there were a general rural target of 30%, a slightly lower figure of 25% could be applied, without undermining viability, on sites of four dwellings and above.

Dynamic Viability analysis

S30 This is designed to overcome a dilemma created by the economic downturn. During the history of affordable housing targets since their creation in 1991 there had been a broadly rising market. This meant that targets could rise also, and reach their pre-downturn level of commonly 40% plus.

S31 The housing market downturn and more general recession from early 2008 meant that targets had to be lowered. It was always a condition of such targets that they should not remove viability from the market housing developments of which they were a part.

S32 There has been no practical suggestion for the way in which affordable housing targets should be treated given their fall in the recession. Many alternative scenarios can be generated, but that does not point to a single target. PPS3 is quite clear that there should be a Plan-wide target. Targets cannot be substantially changed through supplementary guidance after the Core Strategy Examination. If a high ('normal market') target were set it would be correctly attacked as undeliverable, and thus contradict the Blyth Valley Court of Appeal decision which requires that targets should be deliverable.

S33 Fordham Research has therefore devised a system which permits deliverable targets to be set, regardless of future fluctuations in the market, using sets of price and cost indices. It means that the Core Strategy Examination can be presented with the full range of possible target outcomes, and once approved (in whatever form) no new policy change is required to alter the target. It is changed only by the movement of published indexes. The intervals at which it is changed must be infrequent enough to permit an orderly land market, thus perhaps annually.

S34 In order to generate the set of potential target outcomes, it is necessary to agree a Benchmark Site. This is necessary to permit a reasonably simple procedure. In the case of East Staffordshire that site is six: Urban edge brownfield site. It is judged to be typical of the Borough, and expected to remain so for the Plan period.

S35 The mechanism for producing the target ranges is quite complex. It builds on the viability analysis set out in the summary above. It then examines the full range of possible cost and price changes and generates a matrix of possible affordable targets.

S36 This means that periodically the changes in the indices can be ascertained and checked against the matrix to determine a revised target. Such a target would then reflect current deliverability, but also be determined on the basis only of objective fact (i.e. published indices) and a previously agreed set of possible target figures.

S37 An example showing the full detail of this approach is set out in Chapter 8.

Commuted sums

S38 We provided guidance on the levels of payment that could reasonably be sought as commuted payments for off site provision. Different figures were provided for the areas covered by the three affordable sub-targets. The figures were expressed on both a per dwelling basis and as £ payment per sq ft/sq m.

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List of abbreviations

£ k	thousand pounds
£ m	million pounds
dw	dwelling
dwgs	dwellings
ft	foot
ha	hectare
m	metre
sq	square
Q1	Quarter 1
LA	Local Authority

1. Introduction

Introduction

1.1 Fordham Research was commissioned by East Staffordshire Borough Council to produce guidance on the financial viability implications of alternative targets and size thresholds for affordable housing provision within the Borough.

Context

1.2 The context for this study consists of the Guidance which government has provided for doing such work and the broad principles of viability analysis which has of course existed in some form ever since settled civilisation meant that land was bought and sold.

Guidance

1.3 National guidance (Planning Policy Statement 3 (PPS3): Housing 2006) requires Councils to set a target for the proportion of affordable housing to be delivered through new developments. The recently completed SHMA was intended to provide guidance on the levels of affordable housing target that would be justified by the analysis of the area's housing requirements.

1.4 This SHMA advice was, essentially, based on an assessment of the balance between the need for market housing and the need for affordable housing. In doing so it did not take into account the commercial factor – i.e. what is viable and what it is realistic to ask developers to provide in this area at this time. Whilst a target of, say, 40% may be the appropriate figure to balance the overall housing market over time it may not be the appropriate target now.

1.5 The purpose of the present study is to address that issue, enabling the Council to set a robust target in the light of current commercial circumstances in East Staffordshire. That latter target is just that – a target. The amount of affordable housing that can be achieved on any particular site may be less, reflecting the peculiar factors of developing that site at that point of the economic cycle. Where a landowner or developer wishes to argue that this is the case, they would be expected to provide a site specific assessment.

1.6 The Guidance position has been supplemented by the Homes and Communities Agency (HCA) in a recent Good Practice Note: *Investment and Planning Obligations: responding to the downturn* (July 2009). The range of guidance is reviewed below.

1.7 This study is designed to set the current target in an informed way. Given the pattern of housing market conditions since late 2007, and more particularly a general expectation that house prices may continue to fall for some time to come, it may be necessary for any proposed target to be reviewed regularly so as to reflect the resulting changes in the profitability of development.

The land market

1.8 The availability and cost of land are matters at the core of the viability for any development of new houses. The format of the typical valuation has been standard for centuries and looks like this:

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

LESS

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

=

RESIDUAL VALUE

1.9 The result of the calculation indicates a land value, which acts as the top limit of what a bidder could offer for that site. In this study we use the procedure in reverse:

> *Given the likely land values, will a development including X% target for affordable housing be viable?*

1.10 The calculation involves the same basic information but is designed for a different purpose. The 'likely land value' is a difficult topic since clearly a landowner will never be entirely frank about the price that would be acceptable: always seeking a higher one. This is one of the areas where an informed assumption has to be made about the 'cushion': the margin above the 'existing use value' which would make the landowner sell. Landowners and land buyers are surrounded by agents who argue in their clients' interest, so the process of selling and buying development land is not usually simple or quick.

1.11 This study does not attempt to assess the specific price that could or should be paid for each site (please see Figure 1.1 below). The appraisal works out what land on a site may be worth if a range of scenarios were to occur, and then compares that amount with its value in some other use to which it could be put. The study does not attempt to predict when a particular landowner may sell a given site, or even if they will sell, since that is a very site specific matter.

Reasons for this study

1.12 Government Guidance (PPS3: Housing (2006)) contains a paragraph which says that affordable targets should:

> *'reflect an assessment of the* **likely** *economic viability of land for housing within the area, taking account of the risks to delivery and drawing on informed assessments of the likely levels of finance available for affordable housing, including public subsidy and the level of developer contribution that can reasonably be secured.'* (S29) (Fordham Research's emphasis)

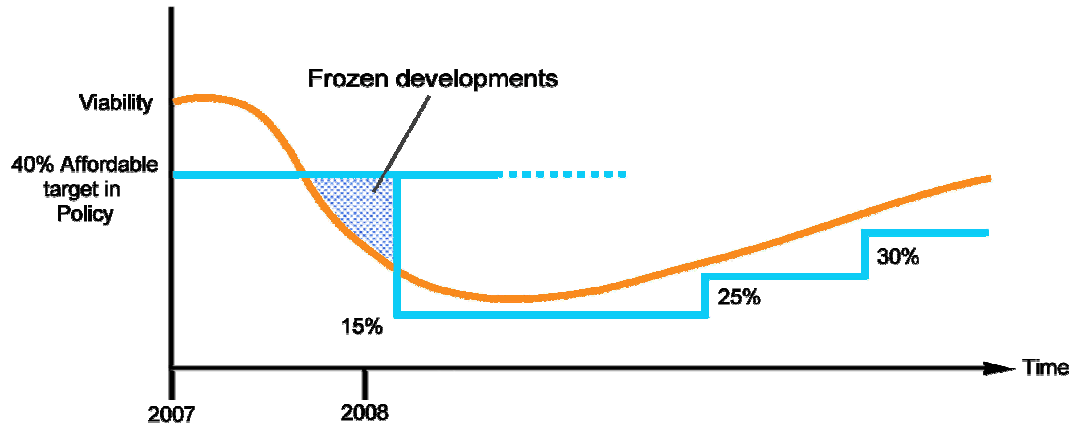
1.13 Until the Court of Appeal decision of August 2008 over the Blyth Valley Core Strategy Inspector's Report, nobody really understood that this statement in PPS3 conferred a new duty on local authorities. In summary:

> *'There is now a duty on every local authority to ensure that any affordable housing target is broadly deliverable within the area.'*

1.14 The word 'likely' in the above quotation from PPS3 is taken to mean that the duty is a 'broad brush' one: the typical site in the local authority should be able to bear whatever target is set. Some sites within the area will not be able to do so, but of course they still have the original scope to make specific submissions at the planning applications stage.

1.15 The date at which this new duty was legally defined to exist coincided with the economic downturn. This had the effect of reducing the profitability of new housing developments, and hence their viability. This situation is shown schematically in the figure below:

Figure 1.1 The effect of the economic downturn on viability



Source Fordham Research 2010

1.16 The diagram shows that where once a 40% target was easily viable, at the time shown in the diagram only a 15% target is viable. Projected future improvements in viability mean that at various times in the future 25% and 30% targets may be viable.

1.17 The situation depicted in Figure 1.1 has caused difficulty in setting targets. The Homes and Communities Agency (HCA) issued Good Practice Guidance on affordable target setting in July 2009. This sets out (in para 19) two alternative bases for target setting:

i) Set the target to the minimum (probably current) level of viability: 15% in the example. This would evidently under-provide affordable housing when taken over a Plan period.

ii) Set the target for a 'normal' market and treat it as flexible.

1.18 The second approach is based on an unpublished note from the Planning Inspectorate and the Good Practice note advises its use. But the result will not be robust:

i) The concept of the 'normal' market is unsound. Prices have always varied, and it is not possible to state which of them is 'normal'. Prices rose unevenly for the whole period 1991 to 2007 but no part of the curve can be labelled 'normal'.

ii) In the present recession there is no agreement as to how long it will last, and what the curve of viability over time (as illustrated in Figure 1.1) will look like. It could be 'V' shaped, 'U' shaped or 'bath' shaped. Nobody knows. It is quite possible that things will get worse before they get better, and that there will be reverses along the way. In short, any 'normal market' target is likely to be undeliverable for much of its life. Some attempts to set one have based themselves on the 2007 peak. This is unlikely ever to repeat, as the cost and price environment will be quite different in future. There is no safe basis for guessing a 'deliverable' target for a 'normal' market.

1.19 The 'normal market' target would therefore be vulnerable to S78 appeal, probably for much of its life, and applicants who went to appeal saying that it was 'undeliverable' would be likely to succeed. Such targets are therefore not robust, or sensible to set.

1.20 The Dynamic Viability model was constructed by Fordham Research to provide a third option: affordable targets that are both deliverable, and provide a reasonable maximum of affordable housing.

What this means for the study

This means that the study is in two stages: the first being the standard viability analysis (in Chapters 2 to 7) and then the second stage containing the Dynamic Viability analysis in Chapter 8.

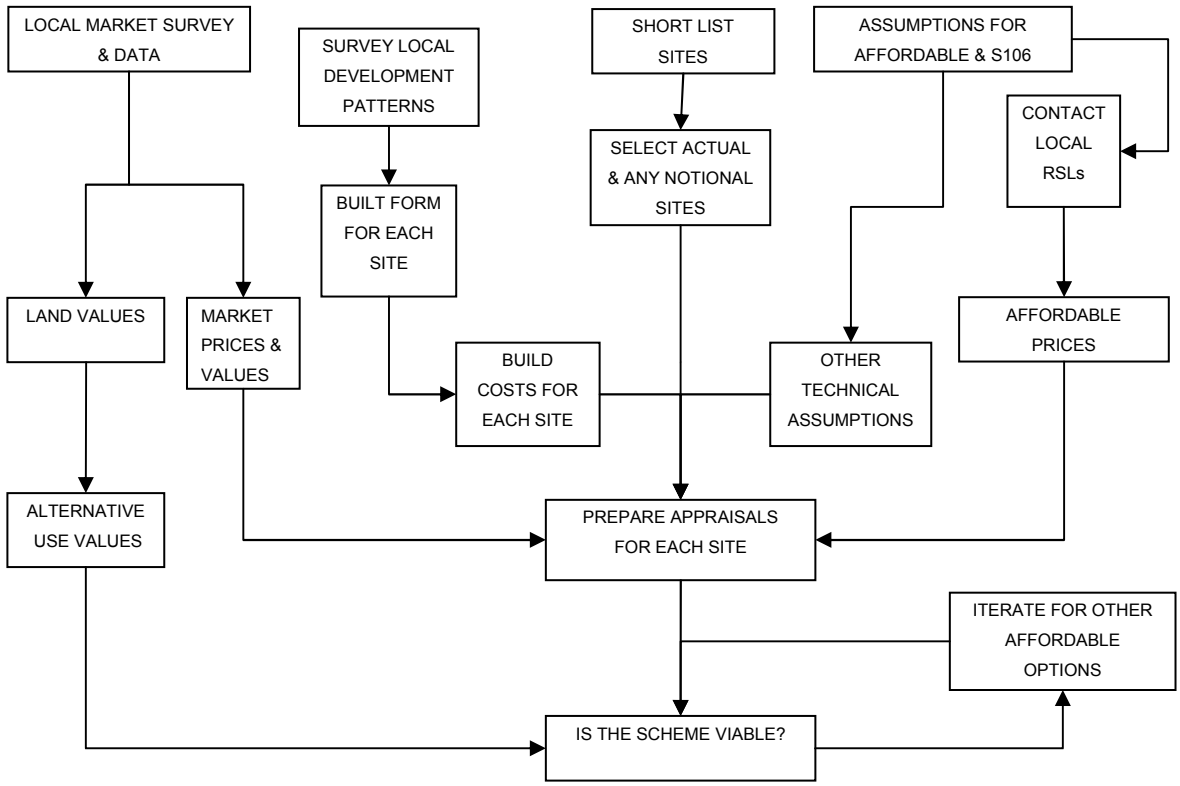
Stage 1 viability methodology

1.21 The Stage 1 viability methodology is summarised in Figure 1.2 below. Fundamentally, it involves preparing financial appraisals for a representative range of sites across the study area. In this case a selection of sites was chosen from a shortlist.

1.22 The appraisals tested alternative levels of affordable housing provision: in each case a combination of social rented and intermediate housing. We considered the likely purchase prices RSLs would pay for units in each category. Assumptions were also required for the developer contributions that would be sought under other headings like education and open space.

1.23 We surveyed the local housing market, in order to obtain a picture of sales values for the market housing. We also surveyed land values for residential development, to calibrate the appraisals and for other uses, to assess alternative use values. Alongside this we considered local development patterns, in order to arrive at appropriate built form assumptions for those sites where information from a current planning permission or application was not available. These in turn informed the appropriate build cost figures.

Figure 1.2 Stage 1 viability methodology



Source: Fordham Research 2010

1.24 A number of other technical assumptions were required before appraisals could be produced. The appraisal results were in the form of pounds per acre/ha 'residual' land values, showing the maximum value a developer could pay for the site and still return a target profit level.

1.25 Finally, the residual value was compared to the benchmark alternative use value for each site. Only if the residual value exceeded the benchmark figure, and by what is explained in due course to be a satisfactory margin, could the scheme be judged to be viable.

Stage 2: Dynamic Viability analysis

1.26 Fordham Research has developed a model which enables the Council to establish through the Core Strategy Examination a matrix of possible future affordable targets. These would be automatically changed in accordance with published indexes of the performance of the housing market. In this way the target would always remain deliverable, but at the same time would ensure that windfall gains in land value are translated into increased affordable housing. This is in accordance with Government Guidance. It would also ensure that the landowners' and house builders' margins are not harmed.

1.27 The Dynamic Viability approach is set out in Chapter 8 below.

Fordham Research

1.28 Fordham Research has been providing advice to Councils in respect of planning gain and development viability since the late 1980s. The firm's approach throughout this time has involved the preparation of financial appraisals. Over the last few years in particular Councils have increasingly commissioned the firm to evaluate financial appraisals which have been prepared by developers in order to support a case for a reduced affordable housing contribution, for enabling development and so on.

1.29 Since 1993 Fordham Research has become a leading consultancy in carrying out Housing Needs Surveys and more recently the more wide ranging Strategic Housing Market Assessments that have largely replaced them, and advising Councils on affordable housing policy issues.

1.30 Since that time the firm has assisted Councils on very many occasions by providing expert witness services at Local Plan and S78 Inquiries, successfully supporting housing need and affordable housing policies. Particularly in recent years this has regularly included evidence in respect of viability issues.

Structure of this report

1.31 The remainder of the report covers the following topics:

Chapter 2 - The individual development sites
Chapter 3 - Affordable housing and developer contributions assumptions
Chapter 4 - Local market conditions
Chapter 5 - Assumptions for viability analysis
Chapter 6 - Results of viability analysis
Chapter 7 - Implications of the Stage 1 results
Chapter 8 - Dynamic viability results
Chapter 9 - Commuted sum payments

2. Individual development sites

Introduction

2.1 This chapter deals with the sites identified for study first outlining the key characteristics of each site and then considering the assumptions made about proposed development upon each site for the purpose of producing a financial appraisal. The individual sites chosen were visited at an early stage in the work.

The Borough in context

2.2 East Staffordshire Borough covers an area of 38,880 hectares and possesses significant historic heritage, together with an extremely attractive natural environment. A mix of urban and rural areas create a diverse place to live and work with the two major settlements Burton upon Trent and Uttoxeter providing two town centres for the Borough. East Staffordshire is situated within the eastern boundary of the West Midlands where it borders the East Midlands and enjoys close links with South Derbyshire District.

2.3 The 2001 Census indicated that 103,770 people were living in East Staffordshire and in 2008 the Office for National Statistics estimated that the population was 109,100 indicating a 5.1% rise. Over half the population is concentrated in the two major settlements of Burton upon Trent and Uttoxeter with the remainder residing in the rural areas. The largest settlements within the rural areas are Barton under Needwood, Tutbury and Rolleston on Dove.

2.4 Historically East Staffordshire has thrived upon its brewing and manufacturing industries. However the last ten years has seen an increase in office, warehousing and logistic uses with a significant amount being concentrated within Burton upon Trent. Rapid development and occupation of employment land particularly within the Centrum 100 Business Park and Centrum West has resulted in a reduction of available employment land. Measures to address this by way of stimulating regeneration and economic growth are underway in order to maintain East Staffordshire's prosperous economy.

2.5 There are 42,700 households within East Staffordshire with over half being located within Burton upon Trent, almost a third are located within surrounding villages and rural areas and the remainder are located within Uttoxeter. The approximate current housing stock within East Staffordshire comprises of two thirds detached and semi-detached and a quarter terraced housing. Apartments make up 10% of the housing stock, the majority of which are located within Burton upon Trent.

2.6 East Staffordshire has been designated by the Government as a 'Growth Point' area. Essentially this is an opportunity for East Staffordshire to create sustainable communities. Funding secured from the growth point initiative will ensure the necessary infrastructure is in place to support high quality and levels of housing and employment. Housing requirements as set out in the West Midlands Regional Spatial Strategy Preferred Option were to provide 12,900 new houses during the period 2006 to 2026. Following the West Midlands Regional Spatial Strategy Phase Two Revision Examination in Public (EiP) during April and June 2009, the Panel Report recommended that 13,000 new homes should be provided. However, following the abolition of Regional Spatial Strategies it is for each local planning authority to decide how many new homes should be accommodated.

2.7 The designation of growth point status will not only provide the Borough with high quality housing and employment development, but is also an opportunity to regenerate existing housing and employment stock.

Identifying a range of sites

2.8 It was decided that, for East Staffordshire, the required guidance on viability would best be achieved by looking at a range of site sizes and principally at sites that were actual, rather than notional. In discussion with the Council it was decided that a total of 19 representative sites should be examined, and this number would provide adequate scope for exploring viability on sites below the current national guidance size threshold of 15 dwellings.

2.9 A final list of sites was established in discussion. The main list of 16, based on actual sites, was chosen to reflect a range of typical development situations: an appropriate balance between previous uses, a range of site sizes, and to cover the main settlements. A supplementary list contained three notional sites representing small village schemes designed to test a rural threshold policy.

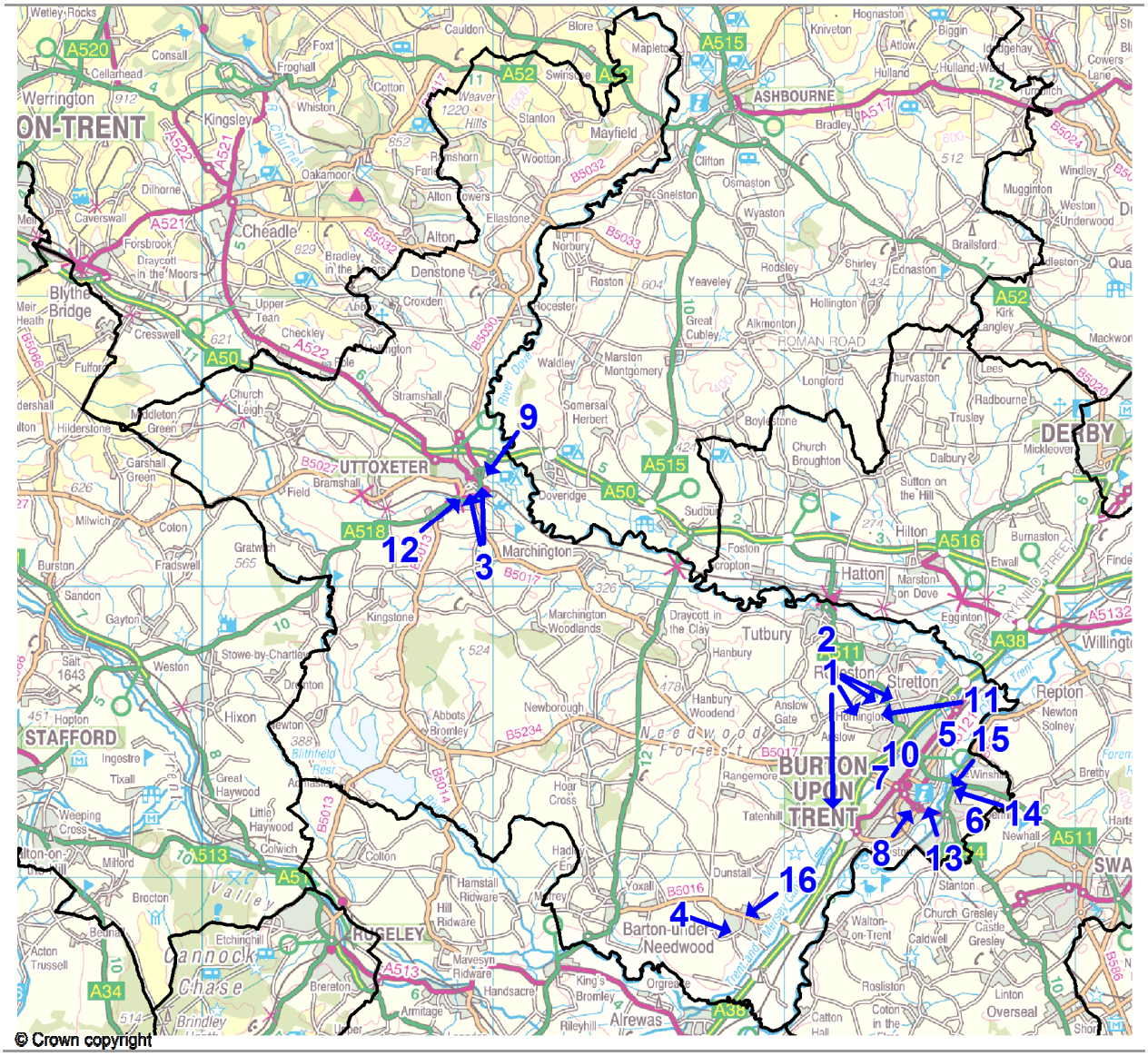
2.10 The main sites ranged in size from seven to 2,000 dwellings. All but four of the sites were on previously developed land. Whilst the sites were at various stages in the planning process, the majority were as yet only proposals or potential sites. Four were subject to a planning application: all of these had been approved. Information available from the various planning applications was taken into account in considering the appropriate development forms to use in our appraisals.

The main sites

2.11 With one exception, all of the sites identified by the Council are 'actual' sites. The exception is site 1, which is a notional site compositing the three alternative proposals for a major urban extension at Burton on Trent. The three are quite different in scale and the notional composite site has been given a nominal size of 2,000 dwellings for simplicity.

2.12 The main sites are shown in the map below:

Figure 2.1 Site locations



Source: Affordable Housing Viability Study 2010

2.13 Summary details of the main sites are set out in the table below.

2.14 The main sites total 3,553 dwellings on a net area of just over 84 ha, at an average density of 42.3 dwellings per ha net. Whilst there is some emphasis on larger to medium sized sites, three are below the national guidance threshold of 15 dwellings.

Table 2.1 Site details; main sites						
Site No	Name	Area ha		No	Net	Planning status
		Gross	Net	Dwgs	Dw ha	
1	Burton Urban Extension	75.00	50.00	2,000	40.0	Urban Extension – SHLAA
2	Village large greenfield	15.24	12.00	533	35.0	Urban Extension – SHLAA
3	Large urban brownfield	4.46	4.46	255	57.2	Application received
4	Village large greenfield	5.14	4.04	180	44.6	SHLAA
5	Large urban brownfield	3.20	2.59	128	49.4	SHLAA
6	Urban edge brownfield	3.42	2.80	106	37.9	SHLAA
7	Large urban brownfield	2.35	2.35	116	49.4	Outline Consent
8	Inner urban brownfield	1.12	1.12	59	52.7	SHLAA
9	Small urban brownfield	1.36	1.24	70	51.5	SHLAA
10	Small urban brownfield	1.10	1.10	30	27.3	Outline Consent
11	Urban edge greenfield	0.80	0.80	20	25.0	Approved
12	Small urban brownfield	0.50	0.50	20	40.0	SHLAA
13	Town centre brownfield	0.50	0.50	44	88.0	SHLAA
14	Small urban brownfield	0.26	0.26	10	38.5	SHLAA
15	Small urban brownfield	0.20	0.20	8	40..0	SHLAA
16	Village brownfield	0.12	0.12	7	58.3	SHLAA
	Total	114.77	84.08	3,586	40.0	

Source: Affordable Housing Viability Study 2010

2.15 All of the sites are assumed to be 100% residential use.

Supplementary sites

2.16 Three supplementary notional sites were worked up to provide an indicative range representing typical development patterns in the rural area. They comprised eight, six and four dwellings respectively. The details are set out in the table below.

Table 2.2 Site details: supplementary sites					
Site No	Name	Area ha	No	Net	Planning status
		Net	Dwgs	Dw ha	
A	Rural 1	0.23	8	34.8	Notional site
B	Rural 2	0.20	6	30.0	Notional site
C	Rural 3	0.17	4	23.5	Notional site
	Total	0.60	18	30.0	

Source: Affordable Housing Viability Study 2010

Development assumptions

2.17 In arriving at appropriate assumptions for residential development on each site, the development form in an approved planning application must always be an important consideration. The application could, conceivably, now be so historic that it represents something that would either not now be proposed or not be permitted. After consideration we took the view that in each case the built form in the current application remains the best basis for carrying out appraisals.

2.18 Most Council areas in which we have carried out studies like the present one display a range of development situations and corresponding variety of densities. We have developed a typology which responds to that variety, which is used to inform development assumptions for sites (actual, or potential allocations) where no guidance is available from a submitted or permitted application. That typology enables us to form a view about floorspace density – the amount of development, measured in net floorspace per developable acre/hectare, to be accommodated upon the site, and which will vary with the intensity of the built form. This is a key variable because the volume of floorspace which can be accommodated on a site has a crucial key impact on its profitability, and is an amount which developers will normally seek to maximise (within the constraints set by the market).

2.19 The typology uses as a base or benchmark a typical post-PPG3/PPS3 built form which would provide development at around 15,500 sq ft per acre (3,550 sq m per ha) on a substantial site, or sensibly shaped smaller site. A representative density might be 35-45 dwellings per ha. This has been a common development format for significant sized brownfield sites and some greenfield sites in most urban centres, and increasingly also smaller towns. It provides for a majority of houses (with perhaps 15-20% flats) in a mixture of two storey and two and a half to three storey form, with some rectangular emphasis to the layout.

2.20 Alongside this, in larger urban areas there would of course be some schemes of appreciably higher density development providing largely or wholly apartments, in blocks of three storeys or higher, with development densities of 30,000 sq ft per acre (6,900 sq m per ha) and dwelling densities 100 dw/ha, upwards; and schemes of lower density, in sensitive rural or rural edge situations. However, the 'base' category as a common urban form referred to above, i.e. 15,500 sq ft per acre (3,550 sq m per ha), might often provide appropriate development assumptions for half or more of the sites in the study, with variations from the base informing the remainder.

2.21 In East Staffordshire's case the market for high density apartment blocks – and currently, flats of any kind - appears to be quite limited. Much of the recent development appears to have been at or if anything a little below the above benchmark development density.

2.22 The standard built form typology is therefore of relevance in East Staffordshire. It is set out in the table below. We would stress that the short titles used to describe the categories have been adopted for convenience only and must not be taken to imply anything specific about where, or when, they might apply.

Table 2.3 Typology of development form			
Category title	*Density measured as:* *Ave floorspace net sq ft/acre (sq m/ha)*	*Dwellings (typical dw/ha)*	*Built form characteristics*
Lower density	12,500 (2,875)	20-33	Edge of settlement, less pressured location. Mostly 2 storey, largely 3 & 4 bed detached houses with garages.
Base	**15,500 (3,550)**	**35-45**	**Mixture of 2 & 2.5/3 storey houses, many terraced; some (15-25%) flats, limited garaging.**
Urban	19,500 (4,480)	50	30-35% flats, and/or fewer 2 storey units than base
High	30,000 (6,900)	100+	Flats in small blocks on 3 storeys, parking spaces
Very high	50,000 (11,500)	150+	Flats in larger blocks on 4-6 storeys, parking limited or underground

Source: Fordham Research 2010

2.23 The above typology relates quite well to the details from those sites where information was available from a recent planning application (for example site 7). It was used to develop model development assumptions for the remaining sites where actual information on planning proposals was not available.

2.24 The resulting assumptions for residential development for each of the 16 main and three supplementary sites are set out in the table below. The sites where actual data was available conform fairly well with the sites using model data informed by the typology.

2.25 Among the sites there is a reasonable spread across the density range, with seven sites firmly in the Base category. This is felt to be representative of development opportunities in the area.

Table 2.4 Site development assumptions

No	Site	Category	Net floorspace density (rounded)		Ave dwg net sq ft(m)
			Sq ft/acre	Sq m/ha	
1	Burton Urban Extension	Base	15,500	3,560	958 (89)
2	Village large greenfield	Base	14,750	3,390	875 (81)
3	Large urban brownfield	Urban	19,700	4,530	852 (79)
4	Village large greenfield	Base	15,500	3,560	860 (80)
5	Large urban brownfield	Base/Urban	17,500	4,020	875 (81)
6	Urban edge brownfield	Base	16,250	3,730	1,061 (99)
7	Large urban brownfield	Base	16,500	3,790	825 (77)
8	Inner urban brownfield	Base	16,100	3,690	753 (70)
9	Small urban brownfield	Base	16,300	3,740	715 (66)
10	Small urban brownfield	Low	12,400	2,850	1,124 (104)
11	Urban edge greenfield	Low/Base	13,500	3,110	1,339 (124)
12	Small urban brownfield	Base/Urban	17,500	4,020	1,081 (100)
13	Town centre brownfield	High	25,900	5,940	726 (67)
14	Small urban brownfield	Low/Base	14,200	3,270	914 (85)
15	Small urban brownfield	Low	12,400	2,840	765 (71)
16	Village brownfield	Urban	18,500	4,260	785 (73)
A	Rural 1	Base	15,250	3,560	1,083 (101)
B	Rural 2	Low	12,500	3,090	1,030 (96)
C	Rural 3	Low	12,250	4,530	1,286 (120)

Source: Affordable Housing Viability Study 2010

3. Affordable housing and other developer contributions

Introduction

3.1 This chapter considers the assumptions used to test a range of affordable housing scenarios for the individual sites and similarly the developer contributions assumed for each site.

Affordable housing assumptions

3.2 We undertook appraisals for a number of development scenarios involving varying proportions of affordable housing and tenure split. The assumptions in respect of proportions, and the financial terms on which they are to be provided, are considered below.

(i) Affordable proportion

3.3 Following discussions with the Council we agreed to test the following options:

- ***NO*** affordable housing
- 10% affordable
- 20% affordable
- 30% affordable
- 40% affordable

3.4 The Council's current policy provides for an average target proportion of 30%. During the consultations of this report with the development industry the need for affordable housing in East Staffordshire was questioned. The assessment of the need for affordable housing is not a matter for this report as it is covered elsewhere in the Core Strategy evidence base.

3.5 New targets may be proposed in emerging Local Development Framework (LDF) Documents. Any such targets would, of course, be informed by the recent Strategic Housing Market Assessment (SHMA) as well as by the present study.

(ii) Tenure split

3.6 The Council currently seeks a mixture of social rented and intermediate housing, though with a large majority provided as social rented. A recent SHMA document in fact suggested a ratio of 78%: 22% overall. We were asked to test a 70/30 option. In practice experience shows that variations of 10% either way would have quite a limited impact on viability.

3.7 In principle, intermediate tenure could constitute a wide range of different housing propositions. After discussion with the Council it was decided that intermediate housing should be assumed to be equivalent to 50% shared ownership with rent at no more than 3% of the unsold equity. It might in practice be provided in various forms, but it was assumed that the outgoings and RSL purchase price would be broadly similar.

(iii) Size profile

3.8 After consideration we assumed that the mix of affordable housing on each site should broadly follow the market housing, achieving an average dwelling size (i.e. net sq ft/sq m) in line with that of the market housing. As well as providing the maximum integration between market and affordable provision, this assumption is also a convenient one which ensures that as the affordable housing proportion varies between the options being tested the floorspace density remains constant. That is a desirable aim if the appraisals are to constitute a realistic development scenario, consistently, across the range of affordable options tested.

(iv) Financial terms

3.9 To be consistent with national guidance this study must take into account the likely availability of public subsidy i.e. Social Housing Grant. The future availability of grant – both the total quantum of grant, and the amounts forthcoming for different sizes of dwelling and tenure – is typically subject to some uncertainty as increasingly the available funding has been directed to achieving specific regional or strategic priorities.

3.10 An assumption based on a 'default position' of zero Social Housing Grant has become a common starting point in this situation. The zero grant assumption also has the incidental advantage of allowing the requirement for grant in individual cases to be calculated more simply than if a set level were already allowed for.

3.11 After consideration it was decided that appraisals should be produced with an assumption that no Social Housing Grant would routinely be available to support affordable housing produced on conventional developer led schemes.

3.12 It was necessary to determine the financial terms on which RSLs should be able to purchase properties of various sizes from the developer under this scenario. We drew on recent experience from elsewhere to suggest indicative levels of purchase price. However with 50% shared ownership the purchase price would clearly need to reflect in part market values in the locality. As seen in the next chapter (para 4.21) there were significant variations in market prices between different sites, and consequently three different levels of purchase price were used, depending on the individual site. The social rented figure was kept constant.

Table 3.1 Selling prices: zero grant basis				
Purchase price zero grant:	*£ per sq ft (sq m)*			
	Social rented		*Intermediate*	
	Flat	*House*	*Flat*	*House*
Low price sites	80 (860)	75 (810)	122.5 (1,320)	117.5 (1,265)
Medium price sites	80 (860)	75 (810)	130 (1,400)	125 (1,345)
High price sites	80 (860)	75 (810)	140 (1,505)	135 (1,450)

Source: Affordable Housing Viability Study 2010

Other developer contributions

3.13 Aside from affordable housing, developer contributions could potentially be sought by the Council under a number of headings. They might be either made in kind, or as financial payments. In either case it is necessary to allow for the additional financial cost of such contributions in preparing appraisals for each site. However, as with many Councils at this time, policy on developer contributions is evolving, and consideration is being given to a move to Community Infrastructure Levy (CIL). The advantage of this approach is a more comprehensive relationship to local infrastructure requirements without the necessity to link every contribution element to a demonstrable impact of the individual development proposal.

3.14 After discussion and consideration of contributions achieved on some recent sites (see Table A1.1 in Appendix 1), it was decided that for the purpose of preparing the base appraisals for the present study, developer contributions should be assumed to be at a rate of £3,000 per dwelling. As Appendix 1 shows, this was the maximum sum requested by the Council on a recent development. However, we also undertook to carry out sensitivity tests with CIL at a level of £15k per dwelling. (See Chapter 6

3.15 It must be emphasised that the base approach of £3,000 per dwelling is simply intended to treat the 16 main and three supplementary sites consistently and equitably, in order to allow financial appraisals to be produced which provide a strategic overview. The figures do not purport to represent necessarily what would be sought, offered or negotiated on specific sites.

4. Local market conditions

Introduction

4.1 This chapter sets out an assessment of the local housing market in the Borough of East Staffordshire, providing a basis for the assumptions on house prices and costs to be used in financial appraisals for the 19 sites tested in the study.

4.2 As well as house prices, however, land values are also considered. They are required in order to form a view of likely alternative use values for all of the sites, and it is such values which will represent a minimum viability threshold when appraisals are prepared for the range of affordable housing scenarios.

4.3 Before looking at the results from the market assessments, there are some general points arising from the nature of the exercise.

Issues to consider

4.4 It is necessary to assess property market conditions in the study area in order to provide a reasonable guide as to likely values to use in evaluating different development proposals.

4.5 Although development schemes do have similarities, every scheme is unique to some degree, even schemes on neighbouring sites. While market conditions in general will broadly reflect a combination of national economic circumstances and local supply and demand factors, even within a town there will be particular localities, and ultimately site specific factors, that generate different values and costs. There are indeed quite significant value variations in different parts of the study area.

4.6 Property market forces are in a constant state of flux and assessments of viability can change over relatively short periods of time in response to broader economic fluctuations, such as the impact of changes in interest rates on the costs of borrowing, the actual availability of funding and the outlook in the employment market. Equally significant, sub-area market conditions are often changed by local factors.

4.7 For example, high value areas encourage demand in lower value neighbouring areas where new developments encourage changes in value growth in what perhaps were previously less popular areas.

The residential market

4.8 The housing market in the Borough will, to some extent, reflect national trends but there are local factors that underpin the market including:

- An area with many attractive and characterful buildings and settlements which possess significant historic heritage
- A mix of urban and rural areas with the two major settlements - Burton upon Trent and Uttoxeter - providing a range of town centre facilities for the Borough's population
- Areas of former traditional manufacturing and extractive activities providing many opportunities for economic revitalisation and which has already seen strong growth in warehousing and logistic business uses
- Location with good access to the national motorway network and within easy reach by rail of the West Midlands conurbation for commuting
- Attractive rural environment close to the leisure opportunities of the Peak District
- The designation of East Staffordshire as a 'Growth Point' area and the Panel Report recommendation that 13,000 new homes should be provided between 2006-2026.

4.9 We analysed various sources of market information but the most relevant are the prices of units on new developments. A list setting out details of relevant new developments in the area, as at March 2010, is provided in Appendix 2.

4.10 Table 4.1 shows average prices in East Staffordshire for the latest quarter available from Land Registry data, Q4 2009. Although the Land Registry data covers both second-hand and newbuild prices, the former will predominate. The average prices in the table are compared to a corresponding England and Wales figure and expressed as indices.

Table 4.1 Average house prices Q4 2009: comparison with England & Wales average

Area		*Ave price (£k & % index)*			
		Detached	*Semi*	*Terrace*	*Flat*
Q4 09	Price (£k)	£256.7	£147.8	£110.8	£106.8
	No of sales	124	116	92	16
	Index	90.3%	83.6%	73.3%	83.1%

Index compares LA's ave £k price figure to the median LA value across England & Wales for house type.

Source: Land Registry data

4.11 Prices in the East Staffordshire area are between around 20% below the average (median Local Authority area), though somewhat more for terraced housing, and conversely less for detached houses.

4.12 As in the country generally, prices fell back between late 2007 and the middle of 2009. Because Land Registry data reports sales after completion there is some lag. Even so the figures show the decline fairly clearly, and the decline in sales numbers is quite evident (sales are seasonally low in the first quarter).

Table 4.2 Average house prices in previous quarters

		Ave price £k			
Quarter		*Detached*	*Semi*	*Terrace*	*Flat*
Q4 07	Average £k	£270.5	£159.6	£146.7	£99.5
	No of sales	159	153	142	41
Q1 08	Average £k	£268.8	£153.7	£112.5	£112.2
	No of sales	81	107	118	38
Q2 08	Average £k	£231.7	£157.6	£110.5	£121.1
	No of sales	84	120	93	35
Q3 08	Average £k	£260.1	£146.4	£111.1	£108.2
	No of sales	62	86	105	23
Q4 08	Average £k	£226.9	£139.7	£101.8	£137.6
	No of sales	67	56	63	52
Q1 09	Average £k	£253.7	£130.9	£99.0	£102.1
	No of sales	57	50	62	33
Q2 09	Average £k	£226.1	£131.3	£96.4	£87.1
	No of sales	71	88	69	15
Q3 09	Average £k	£227.9	£144.7	£112.6	£107.3
	No of sales	100	96	78	18

Source: Land Registry data

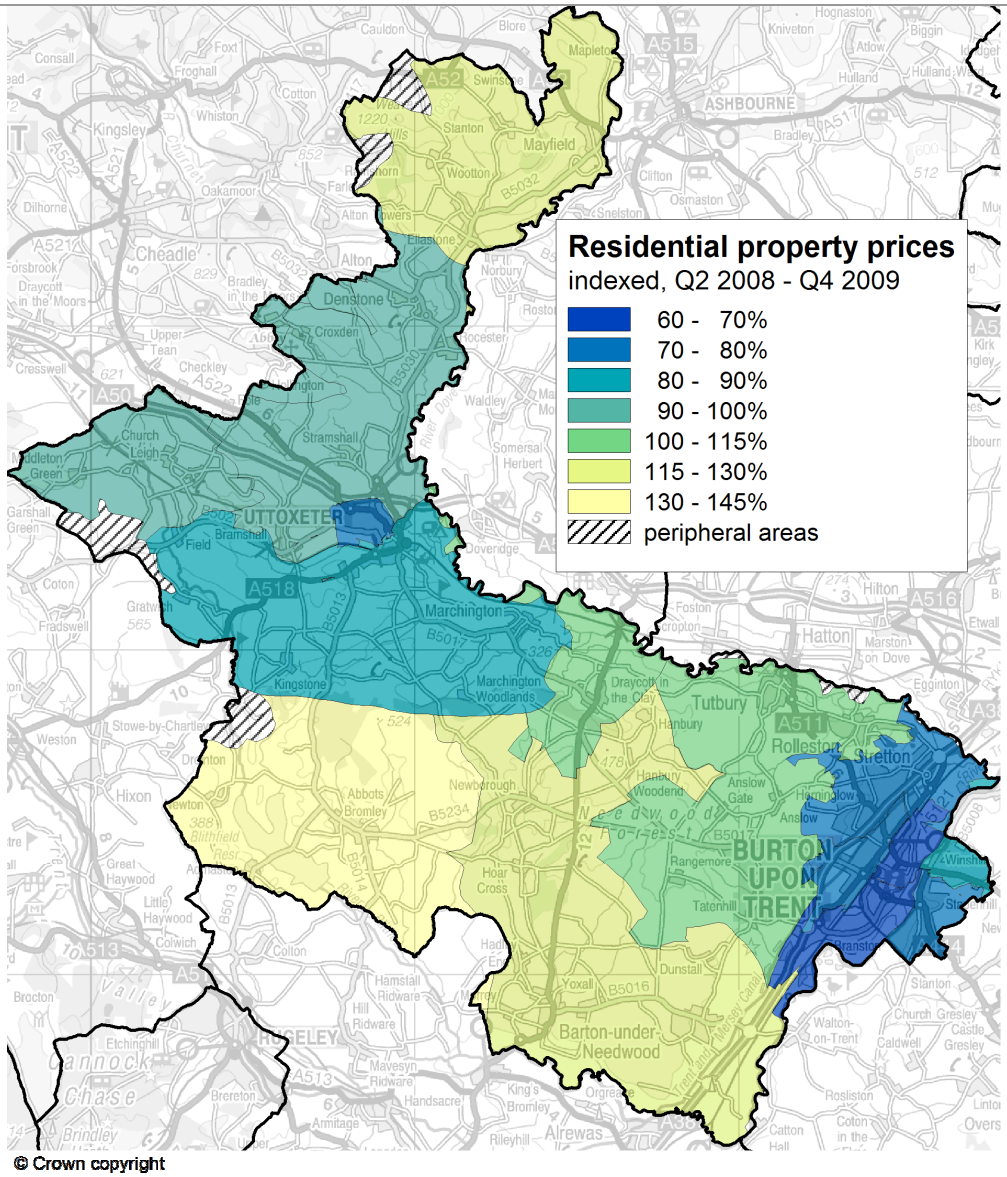
4.13 Within a Council area there can be considerable variations in price, and Land Registry house price data at postcode sector level helps to illuminate these variations. Because the number of sales in individual postcode areas in a single quarter can be quite small, we looked at information for four separate quarters (Qs 2 and 4 2009, Qs 2 and 4 2008). The data has been expressed as an index – as a percentage of the nationwide average price level – and standardised, so as to allow for variations in type mix.

4.14 Appendix 3 provides a worked example of the index calculation and sets out the resulting price index figures for the four quarters examined.

4.15 It can be seen from Appendix 3 that whilst the variations between individual quarters are mostly quite modest, and only in a couple of postcode areas the variations between the individual quarters' indices more substantial. Such price fluctuations may be due to the relatively small number of sales and indeed variations tend to be greater for rural areas, which are mostly numerically smaller and/or more diverse, than for urban areas where postcode sectors are larger numerically and can also often be more uniform.

4.16 The average figures for the four quarters are mapped in Figure 4.1 below. This shows that prices in most postcode sectors are between 70% and 120% of the national average level. The rural postcode sectors are significantly more expensive than the two towns.

Figure 4.1 Postcode price indices



Indices compare prices to value for median postcode sector in England & Wales

Source: Land Registry

Price assumptions for financial appraisals

4.17 It is necessary to form a view about the appropriate prices for the 16 individual schemes to be appraised in the study. The preceding analysis suggests that although prices in the two towns will mostly be quite close, prices in the other, rural parts of the Borough may be appreciably higher.

4.18 It is also clear that we should allow for differences between apartments, two storey houses and town houses, particularly in locations where flats are going to be attractive. Finally, in drawing on the newbuild price data we have to bear in mind that, particularly given recent market conditions, the prices at which homes are offered may include appreciable discounts such as deposit paid for first-time purchasers or stamp duty.

4.19 Taking these points into consideration we considered what sale prices should be for flats, for two storey and for town houses on each of the 16 sites. These were then to be combined on the basis of the proportions of each type on each scheme to produce a single composite average price.

4.20 We established across the study area a range of current newbuild schemes. Whilst the number of newbuild schemes currently active was limited, they were primarily located within the two main areas of the study. The specific details are set out within Appendix 2 of the report. These provided a useful basis to inform the market assessment and provide a guide for a number of sites.

4.21 The site figures resulting from our type-specific assumptions are set out in the table below.

Table 4.3 Price bands

	Site/location	*Price £ per*			*Site/location*	*Price £ per*	
		Sq ft	*Sq m*			*Sq ft*	*Sq m*
1	Burton Urban Extension	180	1,936	9	Small urban brownfield	174	1,873
2	Village large greenfield	184	1,985	10	Small urban brownfield	170	1,830
3	Large urban brownfield	170	1,827	11	Urban edge greenfield	180	1,937
4	Village large greenfield	194	2,083	12	Small urban brownfield	166	1,786
5	Large urban brownfield	167	1,795	13	Town centre brownfield	175	1,883
6	Urban edge brownfield	186	1,998	14	Small urban brownfield	180	1,937
7	Large urban brownfield	171	1,840	15	Small urban brownfield	180	1,937
8	Inner urban brownfield	173	1,858	16	Village brownfield	200	2,152
A	Rural 1	203	2,184	C	Rural 3	210	2,260
B	Rural 2	210	2,260				

Source: Affordable Housing Viability Study 2010

4.22 The figures cover a range from the cheapest, £166 per sq ft (£1,786 per sq m) at site 12, to £210 per sq ft (£2,260 per sq m) on the two greenfield rural sites. They are applied to the net floor areas for each site.

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

Land values

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

4.25 The VOA publishes figures for residential land in the Property Market Report. These cover areas which generate sufficient activity to discern a market pattern. That means locally we have figures for West Midlands as a whole and major locations within the region or in the adjoining East Midlands – but no information for other individual locations.

4.26 These values can, in any case, only provide broad guidance because it is likely that the figures will, to some degree, be net of allowances for developer contributions and/or affordable housing requirements. They can therefore be only indicative, and it is possible that values for 'oven ready' land (i.e. land ready for immediate building) with no affordable provision or other contribution, or servicing requirement, are appreciably higher.

Table 4.4 Residential Land Values half year to July 2009

Area	*Land Value £m per acre (hectare)*		
	Small sites (< 5 dwgs)	*Bulk sites (> 2 ha)*	*Land for apartments*
Stoke	0.565 (1.400)	0.505 (1.250)	0.485 (1.200)
Birmingham	0.655 (1.620)	0.620 (1.530)	0.585 (1.440)
Lichfield	0.710 (1.750)	0.670 (1.650)	0.650 (1.600)
Leicester	0.585 (1.450)	0.545 (1.350)	0.545 (1.350)
Derby	0.565 (1.400)	0.525 (1.300)	0.525 (1.300)
Loughborough	0.585 (1.450)	0.545 (1.350)	0.545 (1.350)

Source: VOA Property Market Report July 2009

4.27 Values for the surrounding major centre locations are typically in the range £550k-£650k per acre (£1.36m-£1.61m per ha). However with the decline in the market and general economic conditions these values may now be rather historic. We therefore sought information about values from residential land currently on sale in the Borough.

4.28 There are a small number of sites for residential development currently available in the immediate and adjacent areas. Three within the Borough area with sufficient detail pointed to a typical asking price of around £950k per acre (£2.35m per ha). These were indeed all small, 'oven ready' sites, with planning permission, and we would expect with no affordable or other significant developer contribution requirement. A more detailed schedule of residential land available is set out in Appendix 4.

Current and Alternative Use Values

4.29 In order to assess development viability it is necessary to analyse current and alternative use values. Current use values refer to the value of the land in its current use, for example, as agricultural land. Alternative use values refer to any potential use for the site. For example, a brownfield site may have an alternative use as industrial land.

4.30 To assess viability, the value of the land for the particular residential scheme adopted needs to be compared to the alternative use value to determine if there is another use which would derive more revenue for the landowner. If the assessed value does not exceed the alternative use value then the development is not viable.

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

4.32 Our 'model' approach is outlined below:

i) For sites previously in agricultural use, then agricultural land represents the existing use value

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

iii) Where the site is occupied by buildings capable of beneficial use we would estimate their broad value

iv) Existing use as garden land would have a value greater than agricultural but significantly less than industrial, unless it could feasibly be developed in an industrial or commercial use

4.33 The VOA's typical industrial land values for the region and nearby locations for the first half of 2009 are set out in the table below.

Table 4.5 Industrial land values

Area	*Land value per acre (hectare)*		
	Low	*High*	*Typical*
West Midlands	£95k (£230k)	£485k (£1,200k)	£205k(£504k)
Stoke/Stafford	£100k (£250k)	£200k (£500k)	£130k(£325k)
Birmingham	£180k (£450k)	£485k (£1,200k)	£325k(£800k)
Leicester	£135k (£330k)	£190k (£470k)	£160k (£400k)
Derby	£120k (£300k)	£160k (£400k)	£140k (£350k)
Tamworth	£100k (£250k)	£225k (£550k)	£160k (£400k)

Source: VOA Property Market Report July 2009

4.34 Although across the West Midlands region as a whole there is quite a spread of values, the figures for the neighbouring individual locations are mostly around £150k per acre (£375k per ha).

4.35 These figures are felt to reflect the downturn in values from 2008 to a considerable degree. There is very little market evidence to suggest what current values might be. This was recognised by the members of the development industry who attended the stakeholder consultation event. There was talk that the minimum price for industrial land was over £300k/ha. We do acknowledge that there certainly are pieces of land at and around this price but very few. The commercial agents were asked to provide evidence of higher prices however have not done so. From the information we have available we believe that a figure of £150k per acre (£370k per ha) constitutes a reasonable benchmark.

4.36 Agricultural values rose for a time recently after a long historic period of stability. They are around £5-10k per acre (£15-25k per ha) depending upon the specific use. A benchmark of £10k per acre (£25k per ha) is assumed to apply here.

4.37 In East Staffordshire, these two benchmark values lead directly or indirectly to an alternative use value for the bulk, 14, of the sites. Sites 6, 15, and 16 are also treated as having industrial value (former farm buildings and two garage sites).

4.38 Taking the remaining two sites, Site 10 is occupied partly by a residential property, and partly by orchard land. We have assumed a value of £200k per acre. Rural site 2 is on residential garden land which is estimated to have a value of £100k per acre.

4.39 The base £10k per acre agricultural value at Sites 1, 2 and 4 is augmented on site 11 where the land is paddock which is given a figure of £50k per acre.

4.40 The value for each individual site that results from the foregoing analysis is summarised in the table below.

Table 4.6 Alternative Use Value bases

	Site	*Basis*	*£k per acre*	*£k per ha*
1	Burton Urban Extension	Agricultural land	10	25
2	Village large greenfield	Agricultural land	10	25
3	Large urban brownfield	Industrial/warehouse	150	371
4	Village large greenfield	Agricultural land	10	25
5	Large urban brownfield	Industrial/warehouse	150	371
6	Urban edge brownfield	Industrial/warehouse	150	371
7	Large urban brownfield	Industrial/warehouse	150	371
8	Inner urban brownfield	Mixed elements	150	371
9	Small urban brownfield	Industrial/warehouse	150	371
10	Small urban brownfield	Building + orchard	200	495
11	Urban edge greenfield	Pony paddock	50	124
12	Small urban brownfield	Industrial/warehouse	150	371
13	Town centre brownfield	Industrial/warehouse	150	371
14	Small urban brownfield	Industrial/warehouse	150	371
15	Small urban brownfield	Industrial/warehouse	150	371
16	Village brownfield	Industrial/warehouse	150	371
A	Rural 1	Industrial/warehouse	150	371
B	Rural 2	Residential garden	100	247
C	Rural 3	Paddock	50	124

Source: Affordable Housing Viability Study 2010

4.41 It was noted earlier that brownfield sites may face 'abnormal costs' if they are to be redeveloped for residential use. Some of those costs, but not necessarily all, might also arise if the site were redeveloped for the alternative use. The alternative use value would need to be reduced to allow for those costs that would still arise in that situation.

4.42 The costs arising from development or redevelopment of the 19 sites are considered in the next chapter along with the other financial and technical assumptions required to prepare financial appraisals for each of the sites.

5. Assumptions for viability analysis

Introduction

5.1 This chapter considers the costs and other assumptions required to produce financial appraisals for the 19 sites.

Development costs

(i) Construction costs: baseline costs

5.2 Drawing upon our own experience, and taking into account published Building Cost Information Service (BCIS) data, we have developed a set of base £ per sq ft construction costs for different built forms of residential development. The costs are specific to different built forms (flats vs. houses; number of storeys). On the basis of these cost figures it is possible to draw up appropriate cost levels for constructing newbuild market housing in East Staffordshire at a base date of March 2010.

5.3 The question arises as to what extent the Code for Sustainable Homes should impact on build costs in the study. Whilst from April 2008 the Code's Level 3 has been a requirement for all homes funded with Homes and Communities Agency (HCA) grant, it is not necessarily a requirement for affordable homes built by developers for disposal to an RSL without grant. The energy performance requirements of Level 3 apply to all newbuild housing (i.e. is incorporated in Building Regulations Part L) from 2010, whilst the Government has previously indicated that higher levels of energy performance (those of Level 4 then 6) are intended to be triggered from 2013 onwards. For the present study it was agreed with the Council that we should assume the whole of Level 3 applies to both market and affordable housing on the sites being appraised, although providing guidance through sensitivity testing for the impact of Level 4.

5.4 We have taken into account the erstwhile West Midlands Regional Spatial Strategy requirement for 10% renewable energy. That requirement would to some degree be overtaken at Level 4. The 10% renewable requirement was only triggered at ten dwellings but for simplicity we have assumed it would apply to all of the appraisal sites.

5.5 Guidance on the impact of Level 3 on construction costs has been provided at various points by work, commissioned originally by the HCA, and carried out by Cyril Sweett. Their latest report, *Code For Sustainable Homes: A Cost Review (CLG March 2010)* provides a review and update of earlier estimates, timed to fit in with the 2010 change in standards. It builds on feedback from earlier reports, and attempts to take account of the bedding-in process for new technology, allowing for anticipated cost savings as the new standards become the norm. Consequently the scale of cost increase to achieve Levels 3 and 4, for instance, is reduced to some degree by comparison with what was suggested in previous reports.

5.6 The study looks at additional build costs for four benchmark house types in six different development scenarios. The extra costs for CSH Levels 1 - 6 over 2006 Building Regulations standards are set out for the resulting 24 house type/scenario combinations, in a summary table (Executive Summary, page 12).

5.7 We have reanalysed the summary to a £ per sq ft/sq m basis. The key results are provided in the table below, which shows additional £ per sq ft/sq m costs for each house type from the most expensive of the six scenarios.

Table 5.1 CSH Level 3 - 4 additional build costs

House type	*2b flat*	*2b terrace*	*3b semi*	*4b det*
Floor area sq ft	656	785	947	1,270
Floor area sq m	61	73	88	118
Additional cost for most expensive scenario				
Level 3 over base cost £ per sq ft	3.7	3.1	3.2	2.1
Level 3 over base cost £ per sq m	40	33	34	23
Level 4 over base cost £ per sq ft	9.7	9.4	8.6	5.4
Level 4 over base cost £ per sq m	104	101	93	59

Source: Fordham Research derived from analysis of BCIS cost data

5.8 It can be seen that the highest increase on base costs to achieve Level 3 is £3.70 per sq ft, and the highest increase (from base) to achieve Level 4 is £9.70. On the basis of these figures we have allowed for the extra cost of [Level 3 plus 10% renewables], with a figure of £6.00 per sq ft/£64.60 per sq m, and in sensitivity testing for Level 4, assumed an additional £4.00 per sq ft/£43.00 per sq m. We believe these assumptions are reasonable given the strategic nature of the present study; it would not be appropriate to attempt a detailed estimate to reflect the likely built form of each individual scheme.

5.9 After allowing for the above CSH/'10% renewable' premium we drew up appropriate cost levels for constructing market housing for the various built forms in the study, taking into account the mix of house types on each. These are set out in the table below.

Table 5.2 Construction costs: market housing					
Build cost £ per sq ft/sq m					
Site	*Sq ft*	*(Sq m)*	*Site*	*Sq ft*	*(Sq m)*
1	79.5	855	9	79.7	857
2	79.3	853	10	80.2	863
3	80.8	869	11	78.0	840
4	77.6	835	12	79.3	854
5	80.0	861	13	92.2	992
6	80.2	863	14	76.3	821
7	80.0	860	15	76.3	821
8	79.8	859	16	76.3	821
A	79.7	857	C	76.3	821
B	80.2	863			

Source: Fordham Research derived from analysis of BCIS cost data

(ii) Construction costs: site specific adjustments

5.10 It is necessary to consider whether any site specific factors would suggest adjustments to these baseline cost figures. Two factors need to be considered in particular: small sites and high specification.

5.11 Since the mid-1990s planning guidance on affordable housing has been based on a view that construction costs were appreciably higher for smaller sites with the consequence that, as site size declined, an unchanging affordable percentage requirement would eventually render the development uneconomic. Hence the need for a 'site size threshold', below which the requirement would not be sought.

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

5.13 In the present study three main sites and the three notional rural sites fall into the 'small site' category – those with less than 15 dwellings. It is felt necessary to make some allowance for the economics of this site in preparing financial appraisals. A range of cost premiums has been estimated for each specific site size, ranging from 5% for the ten dwellings at Site 14 through to 14% for the smallest site, rural site C, with four dwellings. Any such premium must be based on judgement; as explained above it is difficult to see how hard data could ever be obtained to show the effect of scale alone.

5.14 In addition, we considered that site 16 and the three rural sites would be built to a slightly higher specification than the other sites. An allowance of an additional 4% was assumed in order to cover this.

(iii) Construction costs: affordable dwellings and final figures

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

5.16 Taking all the above into account we arrived at build costs for all (market and affordable) housing which after rounding were as in the table below. To aid understanding, a worked example for site B is provided at Appendix 5.

Table 5.3 Construction costs adjusted and rounded: all housing

Build cost £ per sq ft/sq m					
Site	*Sq ft*	*(Sq m)*	*Site*	*Sq ft*	*(Sq m)*
1	79.5	855	9	79.5	855
2	79.5	855	10	80.0	865
3	81.0	870	11	78.0	840
4	77.5	835	12	79.5	855
5	80.0	860	13	92.0	990
6	83.5	900	14	80.0	860
7	83.0	895	15	82.0	880
8	83.0	895	16	85.5	920
A	87.0	935	C	88.5	955
B	88.5	955			

Source: Fordham Research derived from analysis of BCIS cost data

5.17 The above build costs are applied to the gross floor areas for each site.

(iv) Other normal development costs

5.18 In addition to the per sq ft/m build cost figures described above, allowance needs to be made for a range of infrastructure costs (roads, drainage and services within the site, parking, footpaths, landscaping and other external costs), off site costs for drainage and other services and so on. Many of these items will depend on individual site circumstances and can only properly be estimated following a detailed assessment of each site. This is not practical within the present study, and in any case would require at least a design or layout for every site.

5.19 Nevertheless it is possible to generalise. Drawing on experience it is possible to determine an allowance related to total build costs. This is normally lower for higher density than for lower density schemes since there is a smaller area of external works and services can be used more efficiently. Large greenfield sites would also be more likely to require substantial expenditure on bringing mains services to the site.

5.20 In the light of these considerations we have developed a scale of allowances, ranging from 22.5% of build costs for the base density greenfield site at Burton urban extension, down to 10.5% for the small, higher density scheme at Site 16. The table below sets out the individual site assumptions.

Table 5.4 Development cost allowances

Ref	*Site/location*	*% of build costs*
1	Burton Urban Extension	22.5%
2	Village large greenfield	17.5%
3	Large urban brownfield	11.5%
4	Village large greenfield	16.0%
5	Large urban brownfield	13.5%
6	Urban edge brownfield	14.5%
7	Large urban brownfield	13.5%
8	Inner urban brownfield	13.5%
9	Small urban brownfield	13.5%
10	Small urban brownfield	14.5%
11	Urban edge greenfield	14.5%
12	Small urban brownfield	14.5%
13	Town centre brownfield	14.5%
14	Small urban brownfield	13.5%
15	Small urban brownfield	14.5%
16	Village brownfield	10.5%
A	Rural 1	13.5%
B	Rural 2	14.0%
C	Rural 3	14.0%

Source: Affordable Housing Viability Study 2010

(v) Abnormal development costs

5.21 In some cases where the site involves redevelopment of land which was previously developed there is the potential for abnormal costs to be incurred. Abnormal development costs might include demolition of substantial existing structures, piling or flood prevention measures at waterside locations, remediation of any land contamination, remodelling of land levels and so on.

5.22 Most of the sites are on previously developed land and several are liable to flooding from the nearby River Trent. On several sites, from the information made available to us and visits to the sites, it appears that exceptional or abnormal development costs would need to be taken into account in preparing appraisals. Site 1 (urban extension) is of course a notional site and so an indicative allowance has been made. On the notional rural sites, an allowance has been made for clearance of the previously developed site (A), but none of the sites is assumed to have flooding issues.

5.23 As pointed out in the previous chapter (para 4.41) some abnormal costs could also arise in the event of the site's redevelopment with an alternative use.

5.24 The schedule below sets out the abnormal costs considered to apply in each case where they arise:

Table 5.5 Abnormal development costs					
Ref	*Site*	*Item*	*Residential: cost*		*Industrial: cost*
			Total £k	*£k per acre*	*£k per acre*
1	Burton Urban Extension	potential flood & access issues	1,500	12	n/a
2	Village large greenfield	none	0	0	-
3	Large urban brownfield	none, flooding (part)	191	17	n/a
4	Village large greenfield	none	0	0	-
5	Large urban brownfield	demol, clear, flooding	484	61	n/a
6	Urban edge brownfield	farm bdgs demol	75	9	n/a
7	Large urban brownfield	already cleared, flooding (most)	261	45	n/a
8	Inner urban brownfield	demol, clear, flooding	277	100	n/a
9	Small urban brownfield	demol, clear	150	45	n/a
10	Small urban brownfield	part demol	25	9	n/a
11	Urban edge greenfield	none if access OK	0	0	
12	Small urban brownfield	contam, demol	75	61	32
13	Town centre brownfield	clear, flooding	232	188	n/a
14	Small urban brownfield	access diffs	25	39	n/a
15	Small urban brownfield	PFS tanks, flooding	74	150	n/a
16	Village brownfield	PFS tanks	50	169	n/a
A	Rural 1	demolition	10	18	n/a
B	Rural 2	none	0	0	
C	Rural 3	none	0	0	

Source: Affordable Housing Viability Study 2010

5.25 The table also shows the adjustment needed to ensure that an alternative land value reflects the costs incurred in developing an alternative use, where this is applicable. In fact in only one case would abnormal costs arise.

5.26 During the consultation with the development industry whilst this report was being prepared the costs of Part 1 Compensation claims was raised. These are claims from residents living near to a development that may be subject to some disturbance from the improvements to the highways etc. required to service a new development. An allowance of 1% of the development costs was proposed. Having made further investigations we believe that these payments are not the norm and are adequately covered within the existing allowances.

(vi) Fees

5.27 We have assumed professional fees amount to 10% of build costs in each case.

(vii) Contingency

5.28 For previously undeveloped and otherwise straightforward sites we would normally allow a contingency of 2.5% with a higher figure of 5% on more risky types of development, previously developed land and central locations. The 2.5% rate was applied on the four greenfield main sites 1, 2, 4 and 11 plus rural B and C and the 5% figure was used on all the brownfield sites.

Financial and other appraisal assumptions

(i) VAT

5.29 For simplicity it has been assumed throughout, as with most financial appraisals, that either VAT does not arise, or its effect can be ignored.

(ii) Interest rate

5.30 Our appraisals assume 7.5% pa for debits and credits. This may seem high given the very low base rate figure (MLR 0.5% April 2010) but has to reflect banks' view of risk for housing developers in the present situation.

5.31 Credit arises in practice only for a short time at the end of the scheme.

(iii) Developers' profit

5.32 We normally assume that the developer requires a return of 20% on total costs (equivalent to about 16.7% of income) to reflect the risk of undertaking the development. That assumes that the costs are estimates of costs, as they are indeed here intended to be, rather than contract prices which would include a profit element.

5.33 However, where a guaranteed sale applies, the developer's profit margin ought to be reduced in order to reflect the reduction in risk. The affordable units will be sold at an agreed price and programme. With a range of affordable provision being tested it was felt appropriate to reflect the resulting variations in risk with variations in the developer's profit. Consequently a sliding scale of profit margins was used, as shown below. This effectively applies a reduced profit rate to the affordable component, though at 15% that rate is still higher than a straight contractor's profit figure might be.

5.34 The adjusted developer's profit rate is applied to all costs including affordable housing, s106, finance and so on.

Table 5.6 Profit margins	
% affordable	*Profit % on costs*
0%	20%
10%	19.5%
20%	19%
30%	18.5%
40%	18%

Source: Affordable Housing Viability Study 2010

5.35 When this was discussed at the draft report consultation event some residential developers argued that these profit margins were too low and the profit on costs should be around 25%. The argument put forward was that banks and other financiers funding housing schemes were currently only funding projects with this higher level of profit to reduce their risks. We acknowledge that there are banks seeking these margins – but not all banks. Until recently residential developers commonly used a slightly more conservative profit margin of 15% on income, which equates to about 17.5% on costs. Bearing in mind the current financial climate, and the fact that this report is to assist with setting the affordable housing target for the Plan period we are comfortable with the profit margins from the levels suggested.

(iv) Void

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

5.37 For the purpose of the present study a three month void period is assumed for all sites.

(v) Phasing and timetable

5.38 The appraisals are assumed to have been prepared using prices and costs at a base date of March 2010 with an immediate start on-site.

5.39 A pre-construction period of at least six months is assumed for all of the sites; it is extended to nine months for Sites 5, 8, 9, 12, and 13. Each dwelling is assumed to be built over a nine month period.

5.40 The phasing programme for an individual site will reflect market take-up and would in practice be carefully estimated taking into account the site characteristics and, in particular, size and the expected level of market demand. We have developed a suite of modelled assumptions to reflect site size and development type, as set out in Table 5.7 below:

Table 5.7 Market pace assumptions			
	Site	*Dwgs*	
		Total	*Ceiling rate per qtr*
1	Burton Urban Extension	2,000	80
2	Village large greenfield	500	25
3	Large urban brownfield	255	20
4	Village large greenfield	180	16
5	Large urban brownfield	128	15
6	Urban edge brownfield	106	15
7	Large urban brownfield	116	15
8	Inner urban brownfield	59	9
9	Small urban brownfield	70	9
10	Small urban brownfield	30	5
11	Urban edge greenfield	20	4
12	Small urban brownfield	20	4
13	Town centre brownfield	44	6
14	Small urban brownfield	10	3
15	Small urban brownfield	8	3
16	Village brownfield	2,000	3
A	Rural 1	8	3
B	Rural 2	6	2
C	Rural 3	8	2

Source: Affordable Housing Viability Study 2010

S106 contributions

5.41 The assumptions in respect of developer contributions under s106 were considered at 3.13 above.

Site acquisition and disposal costs

(i) Site holding costs and receipts

5.42 Each site is assumed to proceed immediately and so, other than interest on the site cost during construction, there is no allowance for holding costs, or indeed income, arising from ownership of the site.

(ii) Acquisition costs

5.43 Acquisition costs include stamp duty at 4% on site values of £0.5 million and above (reduced below this level) together with an allowance of 1.5% for acquisition agents' and legal fees.

(iii) Disposal costs

5.44 For the market housing, sales and promotion and legal fees are assumed to amount to some 3.5% of receipts. For disposals of affordable housing these figures can be reduced significantly depending on the category. We have assumed total allowances of 0.5% for social rented housing and 1.5% for shared ownership.

Alternative use value comparison

5.45 In the previous chapter we identified alternative use values to be used as benchmarks in determining viability for each site. As we saw above these values might need to be adjusted in some cases to allow for abnormal costs that would arise if the alternative use were implemented.

5.46 After considering each of the sites with abnormal costs we concluded that in only one case would any abnormal cost need to be incurred in order to realise the alternative use. The values as adjusted are set out below.

Table 5.8 Alternative Use Value bases

	Site	*Alternative use value £k per acre*		
		Gross	*Abnormal cost*	*Net*
1	Burton Urban Extension	10	0	10
2	Village large greenfield	10	0	10
3	Large urban brownfield	150	0	150
4	Village large greenfield	10	0	10
5	Large urban brownfield	150	0	150
6	Urban edge brownfield	150	0	150
7	Large urban brownfield	150	0	150
8	Inner urban brownfield	150	0	150
9	Small urban brownfield	150	0	150
10	Small urban brownfield	200	0	200
11	Urban edge greenfield	50	0	50
12	Small urban brownfield	150	32	118
13	Town centre brownfield	150	0	150
14	Small urban brownfield	150	0	150
15	Small urban brownfield	150	0	150
16	Village brownfield	150	0	150
A	Rural 1	150	0	150
B	Rural 2	100	0	100
C	Rural 3	50	0	50

Source: Affordable Housing Viability Study 2010

6. Results of viability analysis

Introduction

6.1 This chapter considers the results of financial appraisals carried out for the identified sites.

Financial appraisal approach and assumptions

6.2 On the basis of the assumptions set out in Chapter 5 we prepared financial appraisals for each of the identified sites using a bespoke spreadsheet-based financial analysis package.

6.3 The appraisals use the residual valuation approach – that is, they are designed to assess the value of the site after taking into account the costs of development, the likely income from sales and/or rents and an appropriate amount of developer's profit. The payment would represent the sum paid in a single upfront transaction. The resulting valuation is commonly expressed in £s per acre (or hectare). In order for the proposed development to be described as viable it is necessary for this value to exceed the value from a valid alternative use. We have already seen that, for a greenfield site where the only alternative use is likely to be agricultural, this figure may be very modest. However, most of the sites have been previously developed and therefore have a more substantial existing or competing alternative use value.

6.4 As outlined in Chapter 3, our appraisals considered four options for the amount and type of affordable housing provision plus a zero affordable option.

Appraisal results

6.5 We produced financial appraisals based on the stated build, abnormal, and infrastructure costs and financial assumptions for the four options (three affordable options, plus all-market).

6.6 Detailed appraisal printouts for all the sites are provided as Appendix 7 to this report. To keep to a manageable sized document only one option, that of 10%, has been provided.

6.7 The resulting residual land values for the four options are set out in Table 6.1.

Table 6.1 Appraisal results for four affordable options						
Zero grant:						
No	*Site*	*Residual value £k per acre for affordable option:*				
		No aff	*10%*	*20%*	*30%*	*40%*
1	Burton Urban Extension	167	121	74	27	-21
2	Village large greenfield	280	223	165	107	48
3	Large urban brownfield	300	212	124	35	-57
4	Village large greenfield	422	352	281	209	137
5	Large urban brownfield	147	86	25	-40	-105
6	Urban edge brownfield	300	228	155	82	8
7	Large urban brownfield	162	86	9	-72	-153
8	Inner urban brownfield	110	34	-44	-123	-204
9	Small urban brownfield	212	139	73	-1	-76
10	Small urban brownfield	188	132	74	14	-48
11	Urban edge greenfield	408	337	266	195	124
12	Small urban brownfield	220	146	66	-15	-98
13	Town centre brownfield	-508	-633	-760	-885	-1,021
14	Small urban brownfield	326	249	172	95	16
15	Small urban brownfield	120	52	-16	-86	-156
16	Village brownfield	474	353	232	110	-14
A	Rural 1	512	420	316	213	107
B	Rural 2	506	426	335	243	151
C	Rural 3	488	398	309	219	129

Source: Affordable Housing Viability Study 2010

6.8 Table 6.1 shows that with no requirement for affordable housing, all but one of the sites deliver a positive land value. Nine of these are broadly in a range of £200k-£400k per acre (£500k-£1.0m per ha). Four are rather higher, and five a little lower.

6.9 These figures cannot be compared directly with what the available figures (Chapter 4) suggest is typically being paid for residential land in East Staffordshire, or in the surrounding urban centres. Even allowing for additional development costs and our planning gain assumptions, and sustainable requirements, values on the remaining sites are somewhat below what the available information suggests for 'oven ready' land in East Staffordshire. This confirms that our appraisal assumptions are, taken as a whole, unlikely to be unduly optimistic.

6.10 Table 6.1 confirms that, as increasing amounts of affordable housing are introduced, the land value reduces. In each case the impact is progressive, but at a broadly linear rate. At the maximum affordable contribution shown, 40%, there are only six schemes which still deliver a significant positive land value (plus two where the value is only nominally positive).

6.11 However, it is clear that land value falls away more quickly for some schemes than for others. It is the most highly priced and most densely developed sites where affordable housing has the greatest negative impact upon land value.

6.12 In order to draw out the implications of these results for the Council's proposed affordable housing policy, as has already been suggested, it will be necessary to consider values from alternative uses for each. This step follows below.

Alternative use benchmarks

6.13 The results from Table 6.1 would need to be compared with the alternative use values set out in Table 5.8 in order to form a view about the likely viability of the affordable options for each site.

6.14 However, it does not automatically follow that if the residual value produces a surplus over the alternative use value benchmark that the site is viable. The surplus needs to be sufficiently large to provide an incentive to the landowner to release the site and any other appropriate cost required to bring the site forward for development. We therefore have to consider how large such a 'cushion' should be for our sites.

6.15 In practice the size of the element will vary from case to case depending on how many landowners are involved, each landowner's attitude and their degree of involvement in the current property market, the location of the site and so on. A 'cushion' equivalent to, say, £25k per acre might be perfectly sufficient in some cases, whilst in a particular case it might need to be four or five times that figure.

6.16 The size of the cushion was the main source of debate at the draft report consultation event with members of the development industry. There was little consensus amongst the stakeholders. It was agreed that for a land owner to be induced to sell they must be offered more than the existing use of that land. For industrial land it was suggested that this should be sufficient to cover the cost of moving a business and new (and better) premises. It was also suggested that agricultural landowners may not sell unless offered many times the agricultural value. The structure of options to purchase land was discussed and most of these are to purchase at a percentage of open market value rather than at a simple price. These will therefore reflect the amount of affordable housing in any consent.

6.17 After consideration we took the view that a broad average figure of £40k per acre (£100k per ha) should be used to provide an incentive to the landowner for all of the brownfield sites in the study. This would be doubled for greenfield agricultural sites to £80k per acre. The figure for the 'cushion' would represent a mark-up of just over 25% on the industrial benchmark land value.

6.18 The figures are set out below and combined with the net alternative use values from Table 5.8 to show the resulting benchmark thresholds for viability.

6.19 It must be emphasised that these figures are simply a view of what it is reasonable to assume as a minimum residual value for the purposes of assessing viability. The figures do not represent what a landowner or promoter might actually receive. This will quite often be rather more; at any given affordable target some sites will generate a higher value and it is not unreasonable to expect at least some of the surplus to benefit the landowner or promoter rather than passing to the developer.

Table 6.2 Viability cushion & threshold values

Ref	*Site*	*£k per acre*		
		Alternative use value	*Cushion*	*Viability threshold value*
1	Burton Urban Extension	10	80	90
2	Village large greenfield	10	80	90
3	Large urban brownfield	150	40	190
4	Village large greenfield	10	80	90
5	Large urban brownfield	150	40	190
6	Urban edge brownfield	150	40	190
7	Large urban brownfield	150	40	190
8	Inner urban brownfield	150	40	190
9	Small urban brownfield	150	40	190
10	Small urban brownfield	200	40	240
11	Urban edge greenfield	50	80	130
12	Small urban brownfield	118	40	158
13	Town centre brownfield	150	40	190
14	Small urban brownfield	150	40	190
15	Small urban brownfield	150	40	190
16	Village brownfield	150	40	190

Source: Affordable Housing Viability Study 2010

6.20 The viability outcomes resulting from applying these threshold values are shown in the Table below.

Table 6.3 Appraisal outcomes: base appraisals, zero grant

No	Site	Value £k per acre					
		Alt use value	No affordable	10%	20%	30%	40%
1	Burton UE	10	167	121	74	27	-21
		90	VIABLE	VIABLE	MARGINAL	MARGINAL	NOT VIAB
2	Village large GF	10	280	223	165	107	48
		90	VIABLE	VIABLE	VIABLE	VIABLE	MARGINAL
3	Large urban BF	150	300	212	124	35	-57
		190	VIABLE	VIABLE	NOT VIAB	NOT VIAB	NOT VIAB
4	Village large GF	10	422	352	281	209	137
		90	VIABLE	VIABLE	VIABLE	VIABLE	VIABLE
5	Large urban BF	150	147	86	25	-40	-105
		190	NOT VIAB	NOT VIAB	NOT VIAB	NOT VIAB	NOT VIAB
6	Urban edge BF	150	300	228	155	82	8
		190	VIABLE	VIABLE	MARGINAL	NOT VIAB	NOT VIAB
7	Large urban BF	150	162	86	9	-72	-153
		190	MARGINAL	NOT VIAB	NOT VIAB	NOT VIAB	NOT VIAB
8	Inner urban BF	150	110	34	-44	-123	-204
		190	NOT VIAB	NOT VIAB	NOT VIAB	NOT VIAB	NOT VIAB
9	Small urban BF	150	212	139	73	-1	-76
		90	VIABLE	MARGINAL	NOT VIAB	NOT VIAB	NOT VIAB
10	Small urban BF	200	188	132	74	14	-48
		240	NOT VIAB	NOT VIAB	NOT VIAB	NOT VIAB	NOT VIAB
11	Urban edge GF	50	408	337	266	195	124
		130	VIABLE	VIABLE	VIABLE	VIABLE	MARGINAL
12	Small urban BF	118	220	146	66	-15	-98
		158	VIABLE	MARGINAL	NOT VIAB	NOT VIAB	NOT VIAB
13	Town centre BF	150	-508	-633	-760	-885	-1,021
		190	NOT VIAB	NOT VIAB	NOT VIAB	NOT VIAB	NOT VIAB
14	Small urban BF	150	326	249	172	95	16
		190	VIABLE	VIABLE	MARGINAL	NOT VIAB	NOT VIAB
15	Small urban BF	150	120	52	-16	-86	-156
		190	NOT VIAB	NOT VIAB	NOT VIAB	NOT VIAB	NOT VIAB
16	Village BF	150	474	353	232	110	-14
		190	VIABLE	VIABLE	VIABLE	NOT VIAB	NOT VIAB
A	Rural 1	150	512	420	316	213	107
		190	VIABLE	VIABLE	VIABLE	VIABLE	NOT VIAB
B	Rural 2	100	506	426	335	243	151
		140	VIABLE	VIABLE	VIABLE	VIABLE	MARGINAL
C	Rural 3	50	488	398	309	219	129
		130	VIABLE	VIABLE	VIABLE	VIABLE	MARGINAL

Source: Affordable Housing Viability Study 2010

Comparison results

6.21 With zero affordable housing only 13 of the 19 sites are viable, and one is marginal. Residential development as 100% market housing is, of course, a relatively profitable development option and in stable market conditions the sites should not be proposed for development otherwise. However, market conditions are not stable. House prices fell considerably since autumn 2007, and there are a number of sites which could not proceed at present, even as 100% market housing. Even so this result suggests that one or two of the sites might struggle to produce affordable housing under any but the most favourable circumstances.

6.22 Turning to the various levels of affordable contribution; at 10% 11 sites are still viable, whilst two are marginal. At 20% the marginal sites become unviable, three viable sites become marginal, and one becomes unviable, leaving seven viable sites.

6.23 At 30% there are five viable sites left, plus one marginal. However, by 40% only one site is fully viable and there are four marginal sites.

6.24 Looking more closely at the sites, it is clear that the sites in the two principal towns, Burton and Uttoxeter, do much worse than the sites located in the rural area. To show this pattern more clearly, the results have been summarised in tabular form below.

Table 6.4 Viability results summary					
	No of sites in category with affordable at:				
	No aff	*10%*	*20%*	*30%*	*40%*
URBAN					
Viable	7	5	1	1	0
Marginal	1	2	3	1	1
Not viable	5	6	9	11	12
Total	13	13	13	13	13
OTHER MAIN					
Viable	3	3	3	2	1
Marginal	0	0	0	0	1
Not viable	0	0	0	1	1
Total	3	3	3	3	3
RURAL NOTIONAL					
Viable	3	3	3	3	0
Marginal	0	0	0	0	2
Not viable	0	0	0	0	1
Total	3	3	3	3	3
GRAND TOTAL					
Viable	13	11	7	6	1
Marginal	1	2	3	1	4
Not viable	5	6	9	12	14
Total	19	19	19	19	19

Source: Affordable Housing Viability Study 2010

6.25 We will consider the implications of these results for future policy in the next chapter. However before we can do this we should consider how likely future movements in our appraisal assumptions might impact upon them.

Sensitivity: price and cost levels

6.26 Whilst variations in any of the appraisal assumptions will affect the results, the key elements which most dramatically affect the outcome are the price and build cost assumptions. In the present market situation it is future movements in prices which are of greatest interest; what if prices continue to fall as they were doing until recently? What if they recover?

6.27 Over the last few months prices appear to have stabilised, and even to have risen somewhat. However there is no consensus that the decline in prices is over. The view is that a limited supply of properties onto the market, rather than an increase in demand, has been responsible for the modest upturn, and a number of commentators still expect a further period of price decline in 2010.

6.28 Given the continuing uncertainty we considered two scenarios in order to illustrate the impact of future price and cost changes. The first took a moderately gloomy view assuming that prices would fall another 10% relative to costs, before a clear recovery begins.

6.29 As an alternative to this we assessed how viability might have looked around the market peak in autumn 2007, essentially reflecting newbuild market prices 18-19% higher than currently, and costs 6% or so lower. The results from this 'market peak' scenario are considered in the next section.

6.30 The 'short-term fall' scenario results for the 10% and 20% affordable options are compared to the base appraisal results for 10% in Table 6.5 below:

Table 6.5 Sensitivity test: short-term market fall scenario

No	Site	Alt use value	Value £k per acre		
			Base option 10% aff	Prices down costs up 10% aff	Prices down costs up 20% aff
1	Burton UE	10	121	27	-9
		90	VIABLE	MARGINAL	NOT VIAB
2	Village large GF	10	223	112	66
		90	VIABLE	VIABLE	MARGINAL
3	Large urban BF	150	212	27	-43
		190	VIABLE	NOT VIAB	NOT VIAB
4	Village large GF	10	352	217	160
		90	VIABLE	VIABLE	VIABLE
5	Large urban BF	150	86	-51	-99
		190	NOT VIAB	NOT VIAB	NOT VIAB
6	Urban edge BF	150	228	84	27
		190	VIABLE	NOT VIAB	NOT VIAB
7	Large urban BF	150	86	-78	-140
		190	NOT VIAB	NOT VIAB	NOT VIAB
8	Inner urban BF	150	34	-135	-197
		190	NOT VIAB	NOT VIAB	NOT VIAB
9	Small urban BF	150	139	-5	-59
		90	MARGINAL	NOT VIAB	NOT VIAB
10	Small urban BF	200	132	8	-39
		240	NOT VIAB	NOT VIAB	NOT VIAB
11	Urban edge GF	50	337	195	139
		130	VIABLE	VIABLE	VIABLE
12	Small urban BF	118	146	-32	-93
		158	MARGINAL	NOT VIAB	NOT VIAB
13	Town centre BF	150	-633	-898	-996
		190	NOT VIAB	NOT VIAB	NOT VIAB
14	Small urban BF	150	249	95	33
		190	VIABLE	NOT VIAB	NOT VIAB
15	Small urban BF	150	52	-86	-140
		190	NOT VIAB	NOT VIAB	NOT VIAB
16	Village BF	150	353	129	30
		190	VIABLE	NOT VIAB	NOT VIAB
A	Rural 1	150	420	233	150
		190	VIABLE	VIABLE	NOT VIAB
B	Rural 2	100	426	264	191
		140	VIABLE	VIABLE	VIABLE
C	Rural 3	50	398	240	167
		130	VIABLE	VIABLE	MARGINAL

Source: Affordable Housing Viability Study 2010

6.31 It can be seen that with a further price fall/cost increase, only six of our sites are viable at 10% affordable, with one marginal. At 20% there are three viable sites and two marginals; 14 sites are unviable.

Sensitivity: the market peak

6.32 The above approach, varying the price level, can also be applied in order to assess retrospectively viability at the peak viability level around October 2007. In this case we believe that prices would have been almost 20% higher and costs at least 5% lower than those assumed in the base appraisals (effectively equivalent to a 25% increase in prices).

6.33 The approach was applied with target proportions of 20%, 30% and 40%, and the results are compared with the 10% 'base' option below.

Table 6.6 Sensitivity test: market peak

No	Site	Alt use value	Value £k per acre			
			Base option 10% aff	Prices up costs down 20% aff	30% aff	40% aff
1	Burton UE	10	121	283	210	137
		90	VIABLE	VIABLE	VIABLE	VIABLE
2	Village large GF	10	223	422	332	242
		90	VIABLE	VIABLE	VIABLE	VIABLE
3	Large urban BF	150	212	534	394	253
		190	VIABLE	VIABLE	VIABLE	VIABLE
4	Village large GF	10	352	570	464	356
		90	VIABLE	VIABLE	VIABLE	VIABLE
5	Large urban BF	150	86	321	223	123
		190	NOT VIAB	VIABLE	VIABLE	NOT VIAB
6	Urban edge BF	150	228	467	355	243
		190	VIABLE	VIABLE	VIABLE	VIABLE
7	Large urban BF	150	86	371	250	128
		190	NOT VIAB	VIABLE	VIABLE	NOT VIAB
8	Inner urban BF	150	34	307	189	69
		190	NOT VIAB	VIABLE	MARGINAL	NOT VIAB
9	Small urban BF	150	139	400	289	177
		90	MARGINAL	VIABLE	VIABLE	VIABLE
10	Small urban BF	200	132	351	258	166
		240	NOT VIAB	VIABLE	VIABLE	NOT VIAB
11	Urban edge GF	50	337	585	475	363
		130	VIABLE	VIABLE	VIABLE	VIABLE
12	Small urban BF	118	146	443	320	197
		158	MARGINAL	VIABLE	VIABLE	VIABLE
13	Town centre BF	150	-633	-146	-347	-560
		190	NOT VIAB	NOT VIAB	NOT VIAB	NOT VIAB
14	Small urban BF	150	249	509	392	278
		190	VIABLE	VIABLE	VIABLE	VIABLE
15	Small urban BF	150	52	288	183	78
		190	NOT VIAB	VIABLE	MARGINAL	NOT VIAB
16	Village BF	150	353	736	553	366
		190	VIABLE	VIABLE	VIABLE	VIABLE
A	Rural 1	150	420	728	575	427
		190	VIABLE	VIABLE	VIABLE	VIABLE
B	Rural 2	100	426	684	551	426
		140	VIABLE	VIABLE	VIABLE	VIABLE
C	Rural 3	50	398	655	535	399
		130	VIABLE	VIABLE	VIABLE	VIABLE

Source: Affordable Housing Viability Study 2010

6.34 The results confirm that at the market peak level of prices, viability would be very significantly improved. All but one of the sites are now viable at 20%. Even at 40% affordable, 13 sites would be viable. Hence at market peak conditions 40% would have been as viable as 10% is in present market conditions.

Sensitivity: CSH Level 4

6.35 The base appraisals were prepared using an assumption that all housing was to be built to the Code for Sustainable Homes Level 3 (and also with 10% renewable energy). It is appropriate to consider the impact of moving to a requirement of Level 4, which has previously been signalled to be a requirement from 2013.

6.36 This can be expected to impair viability since it increases build costs, whilst we cannot allow for any price premium for Level 4 dwellings and so there is no offsetting increase in sales income.

Table 6.7 Sensitivity test: CSH Level 4					
			Value £k per acre		
No	Site	Alt use value	Base option 10% aff	Level 4 10% aff	Level 4 20% aff
1	Burton UE	10	121	79	32
		90	VIABLE	MARGINAL	MARGINAL
2	Village large GF	10	223	176	118
		90	VIABLE	VIABLE	VIABLE
3	Large urban BF	150	212	128	41
		190	VIABLE	NOT VIAB	NOT VIAB
4	Village large GF	10	352	302	230
		90	VIABLE	VIABLE	VIABLE
5	Large urban BF	150	86	23	-41
		190	NOT VIAB	NOT VIAB	NOT VIAB
6	Urban edge BF	150	228	170	97
		190	VIABLE	MARGINAL	NOT VIAB
7	Large urban BF	150	86	11	-69
		190	NOT VIAB	NOT VIAB	NOT VIAB
8	Inner urban BF	150	34	-44	-123
		190	NOT VIAB	NOT VIAB	NOT VIAB
9	Small urban BF	150	139	72	3
		90	MARGINAL	NOT VIAB	NOT VIAB
10	Small urban BF	200	132	77	16
		240	NOT VIAB	NOT VIAB	NOT VIAB
11	Urban edge GF	50	337	277	208
		130	VIABLE	VIABLE	VIABLE
12	Small urban BF	118	146	62	-18
		158	MARGINAL	NOT VIAB	NOT VIAB
13	Town centre BF	150	-633	-780	-906
		190	NOT VIAB	NOT VIAB	NOT VIAB
14	Small urban BF	150	249	183	105
		190	VIABLE	MARGINAL	NOT VIAB
15	Small urban BF	150	52	-15	-83
		190	NOT VIAB	NOT VIAB	NOT VIAB
16	Village BF	150	353	261	143
		190	VIABLE	VIABLE	NOT VIAB
A	Rural 1	150	420	349	245
		190	VIABLE	VIABLE	VIABLE
B	Rural 2	100	426	370	278
		140	VIABLE	VIABLE	VIABLE
C	Rural 3	50	398	344	254
		130	VIABLE	VIABLE	VIABLE

Source: Affordable Housing Viability Study 2010

6.37 Table 6.7 shows the results calculated for the 10% and 20% options. The residual values are typically £50k-70k per acre (£125k-£175k per ha) lower with the reduced sustainable housing requirement.

6.38 Whilst only one site which was previously viable has become unviable at 10%, two marginal sites have become not viable, and three viable sites have become marginal. This leaves seven sites viable at 10%, with three marginal. Six are still viable at 20% affordable (plus one marginal). So a Level 4 requirement reduces the achievable affordable target, by something like 5% or so.

Sensitivity: tenure split

6.39 The base appraisals were prepared using a tenure split assumption of 70/30. We were asked to look at the impact of varying this assumption and therefore looked at an alternative 100/0 split.

6.40 Because intermediate housing achieves higher average purchase prices than social rented, increasing the proportion of social rented dwellings will reduce viability. The impact will increase as the affordable proportion rises, and so sensitivity testing was carried out for the 20% affordable option.

Table 6.8 Sensitivity test: revised tenure split

No	Site	Alt use value	Value £k per acre Base option 20% aff	Value £k per acre Tenure split @ 100/0 20% aff
1	Burton UE	10	74	57
		90	MARGINAL	MARGINAL
2	Village large GF	10	165	145
		90	VIABLE	VIABLE
3	Large urban BF	150	124	93
		190	NOT VIAB	NOT VIAB
4	Village large GF	10	281	259
		90	VIABLE	VIABLE
5	Large urban BF	150	25	2
		190	NOT VIAB	NOT VIAB
6	Urban edge BF	150	155	130
		190	MARGINAL	NOT VIAB
7	Large urban BF	150	9	-19
		190	NOT VIAB	NOT VIAB
8	Inner urban BF	150	-44	-71
		190	NOT VIAB	NOT VIAB
9	Small urban BF	150	73	48
		90	NOT VIAB	NOT VIAB
10	Small urban BF	400	74	53
		440	NOT VIAB	NOT VIAB
11	Urban edge GF	50	266	241
		130	VIABLE	VIABLE
12	Small urban BF	118	66	36
		158	NOT VIAB	NOT VIAB
13	Town centre BF	150	-760	-804
		190	NOT VIAB	NOT VIAB
14	Small urban BF	150	172	143
		190	MARGINAL	NOT VIAB
15	Small urban BF	150	-16	-42
		190	NOT VIAB	NOT VIAB
16	Village BF	150	232	188
		190	VIABLE	MARGINAL
A	Rural 1	150	316	278
		190	VIABLE	VIABLE
B	Rural 2	100	335	303
		140	VIABLE	VIABLE
C	Rural 3	50	309	279
		130	VIABLE	VIABLE

Source: Affordable Housing Viability Study 2010

6.41 The change in tenure split reduces residual values by typically £25-35k per acre at 20%. This is sufficient to make one viable site marginal, and two of the three marginal sites unviable, leaving six viable.

Sensitivity: other developer contributions

6.42 We also looked at the impact upon viability of a much more significant level of developer contribution requirement.

6.43 At this time many Councils are considering the introduction of a Community Infrastructure Levy (CIL) arrangement. This provides the potential where justified, to fund a wider range of infrastructure provision from developer contributions, whilst also potentially removing critical infrastructure provision obstacles to larger scale development projects. Consequently we were asked to consider the impact of a much more significant contributions assumption, of £15k per dwelling.

6.44 This is at this stage an arbitrary figure but does provide the Council with some guidance on the impact of a substantially higher level of developer contribution (should such a level be justified by the scale of the required infrastructure).

6.45 Under the published regulations for CIL it is envisaged that the levy would be collected in respect of market housing only, with affordable dwellings being exempt from the charge. To collect £15k per dwelling in total, a higher figure per market dwelling would have to be charged on sites where a proportion of dwellings were affordable. The equivalent charges per market dwelling would be as set out in the Table below.

Table 6.9 Contribution per market dwelling

	Affordable target				
Overall requirement at £15k per dwelling	10%	15%	20%	25%	30%
Level of contribution (£) required per market dwelling	16,667	17,647	18,750	20,000	21,429

Source: Affordable Housing Viability Study 2010

6.46 The results of appraisals for a '£15k per total dwelling' contribution with target affordable proportions of 10% and 20% are compared to the 10% 'base' option below.

Table 6.10 Sensitivity test: higher developer contributions

No	Site	Alt use value	Value £k per acre		
			Base option 10% aff	Prices down costs up 10% aff	Prices down costs up 20% aff
1	Burton UE	10	121	27	-19
		90	VIABLE	MARGINAL	NOT VIAB
2	Village large GF	10	223	102	43
		90	VIABLE	VIABLE	MARGINAL
3	Large urban BF	150	212	-12	-104
		190	VIABLE	NOT VIAB	NOT VIAB
4	Village large GF	10	352	215	144
		90	VIABLE	VIABLE	VIABLE
5	Large urban BF	150	86	-76	-141
		190	NOT VIAB	NOT VIAB	NOT VIAB
6	Urban edge BF	150	228	102	30
		190	VIABLE	NOT VIAB	NOT VIAB
7	Large urban BF	150	86	-121	-200
		190	NOT VIAB	NOT VIAB	NOT VIAB
8	Inner urban BF	150	34	-187	-265
		190	NOT VIAB	NOT VIAB	NOT VIAB
9	Small urban BF	150	139	-71	-141
		90	MARGINAL	NOT VIAB	NOT VIAB
10	Small urban BF	200	132	17	-44
		240	NOT VIAB	NOT VIAB	NOT VIAB
11	Urban edge GF	50	337	232	160
		130	VIABLE	VIABLE	VIABLE
12	Small urban BF	118	146	-25	-106
		158	MARGINAL	NOT VIAB	NOT VIAB
13	Town centre BF	150	-633	-1,013	-1,140
		190	NOT VIAB	NOT VIAB	NOT VIAB
14	Small urban BF	150	249	83	5
		190	VIABLE	NOT VIAB	NOT VIAB
15	Small urban BF	150	52	-128	-195
		190	NOT VIAB	NOT VIAB	NOT VIAB
16	Village BF	150	353	97	-25
		190	VIABLE	NOT VIAB	NOT VIAB
A	Rural 1	150	420	265	163
		190	VIABLE	VIABLE	MARGINAL
B	Rural 2	100	426	294	202
		160	VIABLE	VIABLE	VIABLE
C	Rural 3	50	398	294	204
		170	VIABLE	VIABLE	VIABLE

Source: Affordable Housing Viability Study 2010

6.47 The introduction of CIL at the scale suggested would have quite a significant impact on scheme viability. Now only six schemes are viable at 10%, with one marginal. Four sites could produce 20% affordable whilst remaining fully viable, with a further two sites marginal. This suggests that a CIL figure of £15k per total dwelling would reduce the achievable affordable target by upwards of 15%.

7. Implications of the Stage 1 Results

Our approach

7.1 The purpose of the Affordable Housing Viability Study was to assess the impact of alternative affordable housing requirements upon development viability. In order to provide appropriate guidance, we have produced financial appraisals in respect of residential developments on a range of sites selected following discussion. Our approach has involved the use of the actual development proposals for the sites with recent planning permissions and 'model' developments for those sites for which applications have yet to be submitted. A bespoke financial appraisal package has been used to produce residual valuations for each site under a series of affordable housing options.

7.2 In order to prepare financial appraisals, whether for a general study like this or on behalf of a landowner or developer proposing a specific development, it is necessary to make a considerable number of assumptions. We believe that, in general, the assumptions we have made are fair and reasonable. They reflect considerable experience drawn from a variety of development situations and are designed to reflect the circumstances of each site which, even in a relatively compact area like the Borough, in practice display a certain amount of diversity.

7.3 The appraisal results would produce open market land values which are consistent but, compared to the limited information we have about recent values in nearby centres, and prices currently sought for small sites in the area, after allowing for differences in their basis, rather lower. This suggests that the package of development assumptions is not unduly optimistic. That they give a conservative view is also supported by a developer's financial submission in respect of one of the sites.

7.4 The low land values emerging also reflect two other factors which we need to take into account when reflecting on the appraisal results:

- The combined effect of a serious restriction on credit availability from the early autumn of 2007 onwards and the consequential, more general, business downturn which became increasingly established by the last quarter of 2008.
- The impact of the allowed for costs in respect of sustainability:
  - Level 3 of the Sustainability Code for both market and affordable homes, without any offsetting uplift in values
  - A 'Merton rule' requirement for renewable energy

7.5 The financial appraisals produce a series of residual values showing the value generated for each site for all market housing, and further tested under a range of affordable housing scenarios.

7.6 In an exercise of this nature, the figures have to be interpreted in order to draw conclusions for Plan policies. We have suggested a basis for interpretation which draws on indicative alternative use values, and sets a standard 'cushion' over alternative use value to provide an incentive for the landowner to bring the site forward. Again, as a strategic approach, we believe this to be reasonable.

7.7 There are substantial variations in house prices between the urban and rural parts of the study area. Those areas where prices are likely to be lowest, the urban areas of Burton on Trent and Uttoxeter, are well represented. The sites therefore covered the 'worst case' by fully including locations in which viability is (other things equal) likely to be worst. The range of sites includes both smaller and larger sites, straightforward and complex development situations and a range of previous uses for previously developed land.

7.8 The appraisals tested various proportions of affordable housing – combined with a proposed tenure split of 70:30 social rented:intermediate affordable housing, with intermediate housing represented by shared ownership at 50% share. It was decided to assume that grant would not normally be available. In estimating the values which, under those terms, developers would be likely to achieve affordable housing of the above types we have used information on estimated purchase prices drawn from our experience elsewhere.

7.9 We have taken a strategic approach ensuring in particular that the sites were treated consistently. This is because the analysis is designed to test and demonstrate Borough-wide deliverability in line with the requirements in national guidance. This work is a strategic study designed to inform the development of Plan policy, rather than per se, as an exercise to predict as accurately as possible the actual financial outcomes of development on specific sites. The actual sites used in the study should be regarded as indicating more general patterns of development across the study area.

Basis for the affordable housing target

7.10 The results from the appraisals suggest that at current market values and costs it would be possible to propose a target of 15% affordable housing, on a zero grant basis, across the study area as a whole.

7.11 With our base assumptions, under present market conditions only 13 of the 19 sites could produce even 100% market housing and remain viable (with one other site marginal). On the basis of interpolation it appears that ten of those sites would remain viable at 15% affordable, with one other remaining marginal. Between 15% and 20% the marginal site becomes unviable, and three viable sites become marginal, leaving seven of the 13 (rather less than half of the full 19) viable. In our view, a 15% general target is the highest that could reasonably be sought in the present (March 2010) market.

Affordable target suggestion

7.12 In the past the Borough may well have been able to negotiate more than 15% affordable housing, without grant, on privately developed sites. However the fall in house prices, combined with the additional cost of sustainable development requirements (Level 3, 10% renewable), has made seeking a general target higher than 15% affordable, unrealistic in the current market circumstances.

7.13 Sensitivity tests show how responsive viability is to changes in present market conditions, i.e. price and cost levels. Were we facing price and cost levels as they might have been in autumn 2007, a higher target, of 40%, was comfortably defensible (although we have to acknowledge that in practice some alternative use values might then have been a little higher).

7.14 The evidence suggests that a 15% Borough-wide target would be the highest that would be reasonable to put forward in present circumstances.

7.15 If, as is expected and recent hopeful signs indicate, the housing market recovers in due course, then clearly it will in time become possible to achieve a general target higher, possibly much higher, than 15%. Below (Chapter 8) we outline an approach to target setting ('Dynamic Viability') which responds to the likelihood of an eventual improvement in viability, through the use of a periodical review process employing predetermined alternative target figures.

7.16 Alongside such an approach, however, we would also suggest that a practical response to the appraisal analysis outlined would be the use of separate sub-targets for different parts of the Borough area.

7.17 The appraisal results indicate that rural sites could cope with a general target of 30%. Alongside this, if all of the urban sites are taken on their own, we take the view that a 10% target would be reasonable. It is achieved by five of the seven sites which are viable with no affordable housing.

7.18 Within the urban sites, the urban extension is something of a special case in policy terms. Ultimately the appropriate mix for a major urban extension such as that proposed at Burton, will be influenced by other considerations than viability, and in particular by the need to achieve a balanced and sustainable community. However, the indicative appraisal results do indicate that the development could deliver a higher proportion of affordable housing than 10%. The results suggest a figure of 15%.

7.19 For the remaining urban sites, our view is that a figure of 10% is still reasonable. Four of the six sites which are viable with no affordable housing, could produce 10%, and extrapolation indicates that the two remaining sites turn marginal around the 8% mark.

7.20 We therefore recommend that the Council considers a two tier target system, with an overall target and three sub-area targets. The targets (in March 2010 market conditions) would be as set out in Table 7.1.

Table 7.1 Proposed affordable targets	
Category	*Target % at March 2010 conditions*
Overall target	15%
Sub-target - Rural	30%
Sub-target - Urban extension (greenfield)	15%
Sub-target - Urban (brownfield)	10%

Source: Affordable Housing Viability Study 2010

7.21 Whilst the urban extension target reflects the appraisals' results for a site related to Burton, prices in Uttoxeter appear to be at least as high as in Burton. If an urban extension were to be proposed at Uttoxeter, of broadly similar scale (say 300-400 dwellings plus), giving the same ability to make its own market level, there is no reason to suppose its viability would be any less satisfactory than the Burton site. Accordingly the suggested urban extension target of 15% could reasonably be applied to a major urban extension at Uttoxeter.

7.22 Before moving on to outline the detail of the Dynamic Viability approach, however, we need to consider the size threshold issue.

The threshold for affordable housing

7.23 National planning guidance (PPS3) requires some consideration to be given to the threshold at which the affordable housing is to be applied. The Council has recognised this, and asked for guidance on the scope for reducing the size threshold from the default position of 15 dwellings, seeking advice in particular on the scope for a reduction in the rural area. In any case, given the relatively modest performance of the urban sites in the appraisals, attention essentially focuses on the scope for a reduced size threshold in the rural parts of the Borough.

7.24 The three smallest of the main sites in the study (with seven to ten dwellings) do potentially provide some guidance on this threshold issue. However, two of these are urban, and only the smallest site, Barton Garage, is in a rural settlement. The three additional notional sites were specifically devised to provide adequate guidance on the viability of small rural sites.

7.25 The table below sets out the appraisal results for the six rural sites, comparing the performance of the sites over the national default threshold with those below it.

Table 7.2 Viability results by threshold group					
	Number of sites viable/marginal/unviable with affordable at:				
	No aff	*10%*	*20%*	*30%*	*40%*
Site > 15 dwgs	2-0-0	2-0-0	2-0-0	2-0-0	1-0-1
Site < 15 dwgs	4-0-0	4-0-0	4-0-0	3-0-1	0-2-2
Total	6-0-0	6-0-0	6-0-0	5-0-1	1-2-3

Source: Affordable Housing Viability Study 2010

7.26 Overall the small sites do almost as well in viability terms as the larger sites. Up to 20%, they perform just as well. At 30% and 40% they do only slightly worse. That is because one small site becomes marginal by 25% and unviable by 30%. This picture supports the view that, at current prices and costs, it would not be unreasonable to apply a 25% target to sites well below 15 dwellings.

7.27 What should the lower threshold be? Our smallest site contains four dwellings. A 25% affordable target on four dwellings provides one dwelling. We would suggest a minimum threshold of four dwellings, which with a 25% target would generate a whole affordable dwelling.

8. Dynamic Viability results

8.1 This chapter takes the results of the viability analysis, the first stage, and provides a basis for policy by providing deliverable affordable housing targets through the Plan period.

What Dynamic Viability does

8.2 The Dynamic Viability model is designed to provide robust targets at all phases of the housing market during the Plan period. This is taken to mean that the full range of possibilities must be set out to the Core Strategy Inquiry, so that its Inspector can consider and decide on the level of target setting for the whole Plan period. The target cannot be left to supplementary guidance, and the alternative would be a costly re-opening of the Core Strategy Inquiry at each change in the housing market.

8.3 The model begins with the viability assessment, based on the residual valuations carried out as part of the main viability study (covering a dozen or so sites characteristic of the area). In some cases the data may refer to notional sites, agreed to represent the viability situation of the local authority area.

Benchmark Site

8.4 The Dynamic Viability approach requires that a single benchmark site, or a synthetic site, is identified that currently reflects the affordable target level that is deliverable in that area. This site should ideally be consulted with stakeholders to ensure that so far as possible there is agreement that it is representative. The benchmark site proposed for East Staffordshire is No 6 – Urban edge brownfield. It is has an alternative use value as industrial/warehousing land.

Key indexes

8.5 The model then takes the key factors affecting future viability and builds their future change into the model. Future change in target levels is purely dependent on published indexes. This means that the process of target setting through the Plan period is entirely transparent. The model is set up prior to the Core Strategy Inquiry, is assessed and approved in whatever form during that Inquiry, and afterwards is entirely dependent on three published indexes:

- **Price change**: We use the Halifax Price Index but others are available
- **Building costs change**: The RICS building cost index based on tenders (BCIS) provides a general index of building costs

- **Alternative use value**: The appropriate measure would depend on the specific alternative use applying to the benchmark site but usually it is the Valuation Office Agency's Industrial Land index.

8.6 Each of the indexes is taken as a range, to produce a reasonably limited number of tabulations. The set of indices is based on the assumption that price and cost are the key changes that affect the viability of a benchmark site, and that alternative use value must be checked in case it has risen above newbuild housing value and thus limits the target in itself.

8.7 The following table, taken from Appendix 6, shows the initial values of the three indexes:

Table 8.1 Update indices

Variable	*Proposed index*	*Starting value*
House Price	Halifax House Price Index Regional (**Not** Seasonally Adjusted)	West Midlands Q1 2010 = 555.7
Halifax House Price Index (free, monthly)		
http://www.lloydsbankinggroup.com/media1/research/halifax_hpi.asp		
Build cost	BCIS General Building Cost Index	March 2010 = 289.8
BCIS Review Online (subscription only, monthly)		
Produced by the Royal Institute of Chartered Surveyors		
http://www.bcis.co.uk/online		
Alternative use value	Property Market Report (VOA): Value of Industrial Land for Leicester	January 2010 = figure is £400k per ha
http://www.voa.gov.uk/publications/index.htm		

This table is also shown as A6.1 in the appendixes

8.8 Each of the indexes is taken as a range, to produce a reasonably limited number of tabulations. The set of indices is based on the assumption that price and cost are the key changes that affect the viability of a benchmark site, and that alternative use value must be checked in case it has moved ahead of newbuild housing value and thus limits the target in itself.

Details of the outputs

8.9 The model generates the full plausible range of target variations based on the above three indexes. The following illustration is one of a set of eight (one for each of the values for the alternative use values). In the example below it is the 'base' alternative use value. The full set of Dynamic Viability tables is presented in Appendix 6.

8.10 As will be noticed, the table below focuses upon the 15% target discussed as being deliverable in the previous chapter: the zero/zero point when looking at the percentage version of the indexes.

Table 8.2 East Staffordshire Coarse Matrix with base alternative use value

Cost Change BCIS Index			Price Change HPI								
	%		-20%	-10%	0%	10%	20%	30%	40%	50%	60%
			444.6	***500.1***	***555.7***	***611.3***	***666.8***	***722.4***	***778.0***	***833.6***	***889.1***
	-20%	***231.8***	10%	30%	45%	50%	55%	55%	55%	55%	55%
	-10%	***260.8***	0%	10%	30%	40%	45%	55%	55%	55%	55%
	0%	***289.8***	0%	0%	15%	25%	35%	45%	50%	55%	55%
	10%	***318.8***	0%	0%	0%	15%	25%	35%	40%	45%	50%
	20%	***347.8***	0%	0%	0%	0%	15%	25%	35%	40%	45%
	30%	***376.7***	0%	0%	0%	0%	5%	15%	25%	30%	35%
	40%	***405.7***	0%	0%	0%	0%	0%	5%	15%	25%	30%
	50%	***434.7***	0%	0%	0%	0%	0%	0%	5%	15%	25%

Note that the table shows proposed % target for each cost/price combination, with 0% change in alternative use value. The table also provides, inside the percentages, the actual values of the indexes, so that they can be read off in future

Source: Affordable Housing Viability Study 2010

8.11 In effect, once the Core Strategy Inquiry has approved whatever the starting target is, the rest follows automatically from the index changes. There is one further point, which is that since the array of possible index changes is extremely large, when viewed as possibilities over a decade or two, the work is done in two stages:

- *Coarse Matrix*: this is calculated in 10% intervals of the indexes (all three). The result provides broad coverage, but the change from one cell to another can produce large changes in targets: e.g. from 25% to 40%. But this stage provides wide coverage.
- *Fine Matrix*: This takes the area around the chosen target and uses 4% intervals in the indexes (the intervals can be varied). This produces results for the area around the chosen target that yield much smaller target changes: mostly 5% intervals and sometimes 10%.

8.12 Table 8.3 shows the Fine Matrix outputs using that relate to the Table 8.2 Coarse Matrix. Again the full set of tables will be found in Appendix 6. As will be seen from Table 8.3, the intervals in the targets around the base case of 15% are smaller than in Table 8.2. They permit more sensitive adjustments of the target as the index numbers change in future.

Table 8.3 East Staffordshire City Fine Matrix with base alternative use value

Cost Change BCIS Index	%		Price Change HPI: -8%	-4%	0%	4%	8%	12%	16%	20%	24%
			511.2	***533.5***	***555.7***	***577.9***	***600.2***	***622.4***	***644.6***	***666.8***	***689.1***
	-8%	***266.6***	10%	20%	25%	30%	35%	40%	40%	45%	50%
	-4%	***278.2***	5%	10%	20%	25%	30%	35%	40%	40%	45%
	0%	***289.8***	0%	5%	15%	20%	25%	30%	35%	35%	40%
	4%	***301.4***	0%	0%	5%	15%	20%	25%	30%	30%	35%
	8%	***313.0***	0%	0%	0%	5%	15%	20%	25%	30%	30%
	12%	***324.6***	0%	0%	0%	0%	10%	15%	20%	25%	25%
	16%	***336.2***	0%	0%	0%	0%	5%	10%	15%	20%	25%
	20%	***347.8***	0%	0%	0%	0%	0%	5%	10%	15%	20%

Source: Affordable Housing Viability Study 2010

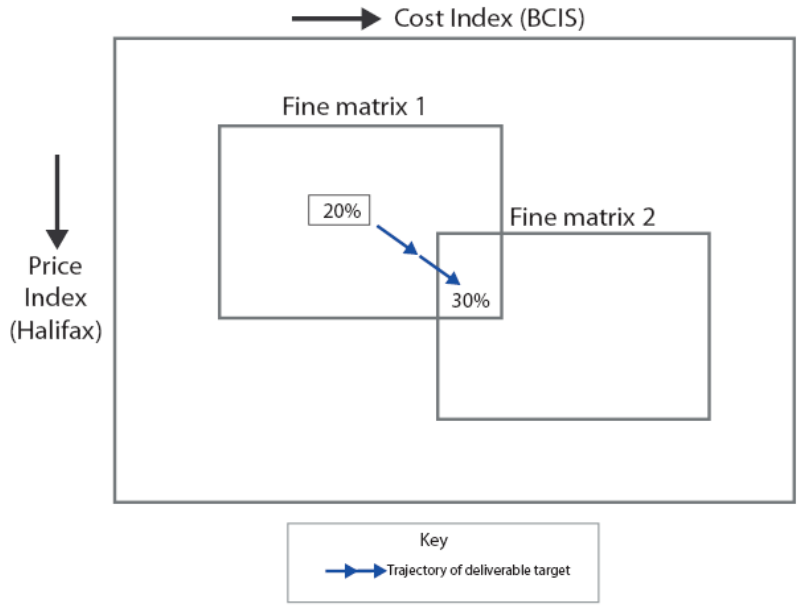
8.13 Figure 8.1 below shows how the close-up Fine Matrices relate to each other within the bigger Coarse Matrix. The trajectory shown in Fine Matrix 1 is from an initial deliverable target of 20%, through various changes in cost and price to a position of a 30% deliverable target in some years' time. At that point the trajectory has reached the edge of Fine Matrix 1. It is relatively simple then to reset the index base to produce Fine Matrix 2 which includes the 30% and allows for further movement to the right. If the trajectory were in any direction that took it outside Fine Matrix 1, then Fine Matrix 2 could be adjusted to include it, and show the onward trajectory, whatever that might be.

8.14 In order to see how the Fine Matrix relates to the Coarse, it is easiest to examine the indexes as percentages: the outside rows and columns. It will be noticed that the Fine Matrix runs from -8% to +20/24% of the initial value of the matrices. The Coarse Matrix runs from -20% to +50/60% of the value of the indices. The Fine Matrix (outlined in Table 8.3) covers around a fifth of the total area of the Coarse Matrix.

8.15 The practical point of the Fine Matrix can be seen in the much smaller intervals between the targets. In the Coarse Matrix outputs the intervals may be 10-15% between adjacent cells, but in the Fine Matrix the intervals are usually only 5%. Clearly the coverage and fineness of the Fine Matrix can be altered by varying the size of the steps, which is 4% of each index in the example. Hence the level of 'close-up' can be varied prior to the Core Strategy Inspector's decision.

8.16 It is important to emphasise that these Fine Matrices are like a 'close up' mechanism. The figures are all available from the initial Coarse Matrix and require no further policy or other judgements: they are automatically derived from the indexes. The only issue is the fineness of the intervals and the production of a manageable size of tabulation. The tabulation, of course, has to be accessible to a wide range of stakeholders and so must not be too daunting.

Figure 8.1 *Coarse* and *Fine* Matrices related



Note: This diagram is schematic and does not apply to East Staffordshire

Source: Fordham Research 2010

8.17 To provide further assistance in visualising how this system works, the following figure provides a mini-manual:

Figure 8.2 Updating the affordable target

Step 1

The starting point is the Alternative Use Value Fine Matrix Table F1. Does the current value of the Alternative use index mean that another page rather than the base page should be used? If so this is the reference for the further steps.

Step 2

Using the appropriate Fine matrix table, decided by Step 1, check the changes in the HPI and the BCIS. If either or both of these has changed by more than half the interval to the next step, then the target cell will change. This may or may not involve a target change, since some of the targets will the same in several cells.

Step 3

Publish the change in some suitable format such as the Annual Monitoring report.

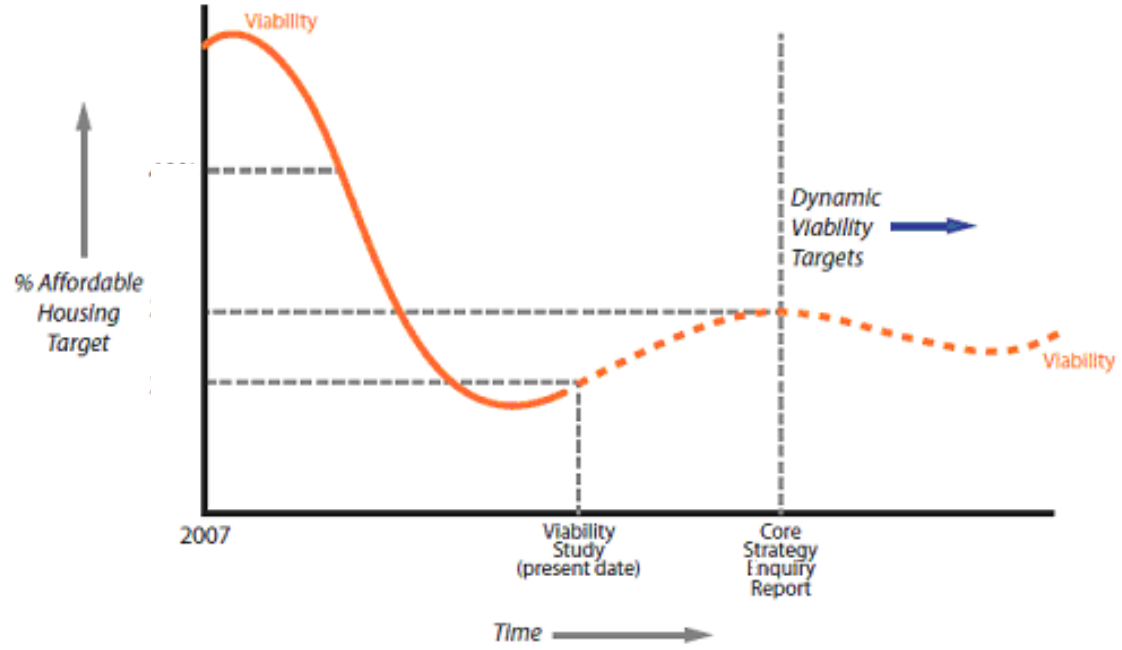
Source: Fordham Research 2010

Implementing Dynamic Viability

8.18 The Viability study which is the input into Dynamic Viability is likely to be done as part of the preparation of the Core Strategy Affordable Housing Policy. There will then be a delay of months or years until the actual Inquiry. During that period there may well be changes in the market. Thus it is likely to be necessary to redo the base viability analysis at the time of the Core Strategy Inquiry to ensure that the Dynamic Viability process starts from the period of the Inquiry.

8.19 Since the automatic target varying procedure cannot begin until approved by the Inspector's Report, it is desirable to have it as up to date as possible. Figure 8.3 indicates this process schematically.

Figure 8.3 Implementing Dynamic Viability



Note: This diagram is schematic and does not apply to East Staffordshire

Source: Fordham Research 2010

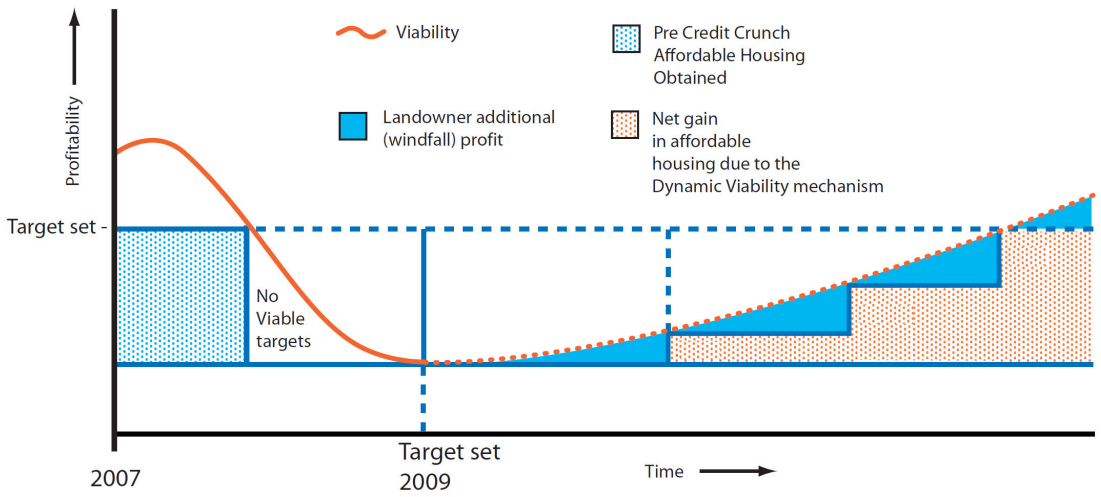
8.20 The diagram illustrates the possible change in viability between the Study and Core Strategy Inquiry. After that, of course, the Dynamic Viability matrix will take account of future variations in viability. As the diagram suggests, these could be downward as well as upward. The future course of the market is uncertain.

Conclusion

8.21 The tables in Appendix 6 provide the detailed background to the two tables (8.2 and 8.3) presented above. Together they allow for the Core Strategy Inquiry to set the basis for deliverable affordable housing targets over the Plan period. They should achieve the practical maximum of affordable housing without prejudicing the delivery of market housing. As shown below, there will be points in the process where, if land is given planning permission, there will be a windfall land profit, and others where the enhancement of viability is largely or fully converted into an increased target.

8.22 For smaller developments the Dynamic Viability target current at the time of granting full permission or when reserved matters are determined rather than outline will be applicable through the development process. On larger developments, which contain more than one phase, an updating process may be inserted into the s106. This will provide an automatic updating of the affordable target (up or down). The mechanism already exists in the Planning Acts.

Figure 8.4 Gain of Affordable housing through Dynamic Viability



Note: This diagram is schematic and does not apply to East Staffordshire

Source: Fordham Research 2010

8.23 The 'broad-brush' viability process is therefore enhanced by Dynamic Viability. It provides a process, established in the Plan, whereby deliverable targets are adjusted to the particular future housing market situation.

9. Commuted sum payments

Introduction

9.1 There may be situations in which it is agreed that, whilst an affordable contribution should arise in respect of a particular development, it is appropriate that all or some of the contribution should be made off site.

9.2 Where this is the case and where replacement affordable units are not going to be provided by the developer on another site agreed with the Council, it will be necessary to secure the due affordable contribution in the form of a commuted payment. This chapter provides guidance on the calculation of commuted sum payments in such a situation. Commuted sums can also come into play, however, where the affordable target leads to a contribution involving a fraction of a dwelling.

9.3 The financial appraisal analysis discussed earlier in the Report provides a basis for calculating commuted sum payments. This methodology was discussed with the stakeholder group from the development industry and was agreed to be sensible.

Approach

9.4 It is sensible for all Councils to set out guidance as to how a commuted sum would be calculated - so as to provide transparency, and to avoid the undue delays that might arise during s106 negotiations if details of a payment had to be developed from first principles on each occasion. As it happens, the viability study analysis provides a basis on which it would be possible to formulate appropriate arrangements for calculating the commuted sum.

Review of Plan policy formulae

9.5 Some time ago we researched the nature of commuted sum formulations in then approved or emerging local planning policies. Whilst some relied on generalities, the vast majority - almost all of those we looked at - which had developed a specific formula, had used one which derived from the Housing Corporation's Total Cost Indicator (TCI) system.

9.6 This system was designed to provide cost discipline, so as to ensure that affordable housing was procured by Registered Social Landlords on terms which produced Value for Money for the public subsidy, Social Housing Grant (SGH), which had been the normal funding basis through which it was provided.

9.7 Given that this was its purpose, the TCI was extremely useful in providing a basis for calculating commuted sums. It was designed to provide cost guidance specifically related to each local Council area; contained such guidance for each of a large number of different dwelling size bands; and was updated through indexing and readjustment, each year so remained current.

9.8 Unfortunately the Housing Corporation replaced the TCI system with an approach which does not provide these benefits. This reflected, to some extent, the move towards a more targeted use of SHG and a greater reliance on developer subsidy. However, from the viewpoint of commuted sum formulation, the change is, in some respects, to be regretted.

Alternative approach

9.9 We have adopted a new approach to the calculation of the developer contribution, utilising the site viability analysis. It is based upon the contribution that the developer would have made if an on-site affordable contribution were delivered.

9.10 The calculation works as follows:

i) Estimate the value of the site with 100% market housing

ii) Estimate the value of the site with the target level of affordable housing contribution

9.11 The difference between (i) and (ii) is the loss in value experienced by the developer due to the affordable housing policy contribution.

9.12 Taking the appraisal for site 4 as an example, the residual value with no affordable housing, i.e. 180 market dwellings, is £5,365,008. With the 10% affordable option, the residual value falls to £4,469,041.

9.13 The developer's contribution is £895,967; divided by 18 affordable dwellings, this gives a cost of £49,776 per affordable dwelling.

9.14 The results of this calculation for the full range of sites are set out in Table 9.1.

Table 9.1 Affordable Housing Contribution: calculations

Site		£ RV @ no aff	£ RV 10% aff no grant	Contribution £ per aff dw	Contribution as £ per	
					sq ft/	sq m
1	Burton Urb Extn	30,917,175	22,341,313	42,900	44.8	482
2	Village large GF	10,538,502	8,384,081	40,400	42.5	457
3	Large urban BF	3,307,503	2,340,938	37,900	44.5	479
4	Village large GF	5,365,008	4,469,041	49,800	57.9	623
5	Large urban BF	1,166,176	681,215	37,900	43.3	466
6	Urban edge BF	2,539,452	1,928,564	57,600	54.3	584
7	Large urban BF	943,726	500,244	38,200	46.3	499
8	Inner urban BF	304,240	95,941	35,300	46.9	504
9	Small urban BF	713,761	467,860	35,100	44.8	482
10	Small urban BF	512,308	358,406	51,300	45.6	491
11	Urban edge GF	805,792	666,001	69,900	52.2	562
12	Small urban BF	272,595	179,764	46,400	58.6	631
13	Town centre BF	-627,487	-781,513	35,000	48.2	519
14	Small urban BF	209,356	160,278	49,100	53.7	578
15	Small urban BF	59,178	25,621	41,900	54.8	590
16	Village BF	140,538	104,817	51,000	65.0	699
A	Rural 1	291,123	238,506	65,800	81.8	880
B	Rural 2	250,000	210,251	66,200	82.3	886
C	Rural 3	204,799	167,539	93,100	119.9	1,290
Overall median figure				46,400	52.2	562

N.B. Per dwg contribution figures have been rounded to nearest £100 in each case.

Source: Affordable Housing Viability Study 2010

9.15 The calculated contributions in Table 9.1 vary considerably, from a minimum of £35,100 to a maximum of £93,100, with a median figure of £46,400. The figures will vary to reflect location and hence price; and of course must also vary with the average dwelling size. If we allow for this by calculating on a £ per sq ft/sq m basis the sites are fairly well clustered, with the urban sites typically £45-£55 per sq ft or £485-£590 per sq m, and the smaller rural sites from around £80 per sq ft/£860 per sq m upwards.

Proposed guidance

9.16 It appears that the cost of providing affordable housing varies quite substantially, and in particular between the urban and rural parts of the Borough area. It would be possible to operate a range of commuted sum figures to cover these variations in price level. Those contributing commuted sums might then - not unreasonably - expect the Council to use them to fund provision in the corresponding part of the area. Unless this is felt to be a serious difficulty, we would advocate separate sub-area figures for urban and rural sites. Based upon the median figures from the table, this would give commuted sum figures ranging from £41,900 per dwelling (urban brownfield sites) to £58,400 per dwelling (rural sites).

9.17 These figures are based upon market conditions as at March 2010, and require a regular updating process, which we suggest could be aligned with the market review process proposed in Chapter 8. Alternatively, at the conclusion of the study the appraisal software could be provided to the Council and training given in its operation. The Council could undertake periodic updating of the appraisal calculations, taking account of changes in costs and values, and ensuring that the commuted payments figures continue to represent the cost of providing an affordable unit off site

9.18 We note that a single per dwelling contribution figure (or set thereof) does not allow for wide variations in the size of the dwellings which would in practice be produced if an on site contribution was required. A solution to this would be to use the £ per sq ft/sq m figures as a basis for calculating a financial contribution from the sizes of the dwellings that would have been produced onsite (assuming that can be determined). In that case the figures would range from Urban £46.9 per sq ft/£504 per sq m to Rural £73.4 per sq ft/£790 per sq m.

9.19 The figures under the two approaches are set out below for the Council's consideration.

Table 9.2 Proposed commuted sum contribution figures

	Per dwelling	*Per unit area*	
Category	*£ per dwg*	*£/sa ft*	*£/sq m*
Rural	58,400	73.4	790
Urban (brownfield & urban extensions)	41,900	46.9	504

Source: Affordable Housing Viability Study 2010

Appendices

Appendix 1 Developer contributions

A1.1 The schedule below provides details of contributions for a number of recent sites in the Borough.

Table A1.1 Newbuild scheme details

Site	*No of dwgs*	*£ contribution under heading*					
		Education	*National Forest*	*Open space*	*Transport highways travel*	*Total*	*£ Per dwelling*
Dallow Bridge	32	33,093	11,000	30,000		74,093	2,315
Brabazon	116	171,756	29,000	17,500		218,256	1,882
Renold Chains	150	206,264	39,000	83,288	53,244	381,796	2,545
JB Kinds	151		26,000	61,000	50,068	137,068	908
Barleyfields	350	626,596		270,110	153,397	1,050,103	3,000
Burton village	201	129,120	5,000	44,300	21,580	200,000	995
Total	1,000	1,166,829	110,000	506,198	278,289	2,061,316	2,061

Source: East Staffordshire Borough Council 2010

Appendix 2 Newbuild schemes

A2.1 The schedule below provides details of a number of current newbuild developments and other comparable housing in the Borough.

Table A2.1 Newbuild scheme details

Site / location	*Builder*	*No. of dwgs*	*Range of dwgs*	*Prices*
Glass Works Ludgate St Tutbury	Friel Homes	9	2 bed coach house & 4 bed houses	£210k-£300k
Crystal Court Tutbury	Friel Homes	37	1 & 2 bed flats	£135k-£193k
Peel Place Crowberry Lane Barton Under Needwood	Jack Loggin	conversion + 3	4 bed houses	£435k-£499k
Chamberlain Place Town Meadows Way Uttoxeter	Harron Homes	54	2 bed flats 2-4 bed houses	£109k-£159k
Barleyfields Burton	Persimmon	350	2 3 & 4 bed houses	£149k-£172k
Abbeyfields Burton	Miller Homes	59	1 & 2 bed flats 2 & 3 bed houses	£87k-£157k

Source: Local Market Survey, Fordham Research 2010

Appendix 3 House price variations

A3.1 The indices in the table which follows compare prices in each postcode sector in the study area with an England and Wales 'average' figure – actually the median postcode value.

A3.2 The indices are standardised, to eliminate the effect of variations in type mix; separate indices for each house type are combined with weightings based on the mix of overall sales.

Table A3.1 Price variations by postcode sector

Postcode sector	*Areas covered in sector*	*Q4 09*	*Q2 09*	*Q4 08*	*Q2 08*	*Ave*
DE14 1	Burton NE Central	55%	64%	60%	66%	61%
DE14 3	Burton South, Branston	68%	65%	70%	71%	69%
DE14 2	Burton Central	65%	65%	84%	72%	71%
DE15 9	Stapenhill [+Church Gresley]	71%	76%	68%	74%	72%
DE13 0	Stretton. Horninglow	73%	77%	74%	75%	75%
ST14 7	Uttoxeter, Kiddlestitch	70%	79%	77%	83%	77%
ST14 8	Uttoxeter Sout, Highwood	84%	73%	90%	75%	81%
DE15 0	Winshill [+Bretby]	81%	102%	81%	84%	87%
ST10 4	Church Leigh [+ Tean, Alton]	98%	92%	105%	90%	96%
ST14 5	Stramshall, Denstone	130%	84%	92%	92%	99%
DE13 9	Tutbury, Rolleston, Tatenhill	103%	92%	103%	107%	101%
DE6 5	Draycott in the Clay [+ Doveridge]	94%	166%	97%	85%	111%
DE6 2	Mayfield, [+Ilam, Gt Cubley]	116%	126%	132%	109%	121%
DE13 8	Barton u Needwood, Newborough	129%	118%	125%	112%	121%
WS15 3	Abbots Bromley [+ Hill Ridware]	115%	176%	130%	103%	131%

Source: Analysis of Land Registry data

Notes

1. Where a postcode sector includes areas inside and outside the Borough, the areas outside are shown in brackets

2. Data has been mix adjusted to remove differences in house type mix between postcode sectors; individual indices have been calculated for each house type, and combined using weights reflecting the nation-wide type mix. A worked example is provided below.

Table A3.2 Worked example for DE13 0 at Q4 2009					
	Land Registry data Q4 2009				
	Detached	*Semi*	*Terraced*	*Flat*	*Total*
England & Wales - median price	**£269,958**	**£170,072**	**£148,462**	**£142,624**	
England & Wales - no of sales	**45,878**	**56,145**	**54,995**	**33,717**	**190,735**
DE13 0 – ave price	**191,747**	**132,088**	**125,999**	**72,500**	
DE13 0 price as % E & W median value	71.0%	77.7%	84.9%	50.8%	
Weighted average index for DE13 0 =	[(45878 x71.0%)+(56145 x 77.7%)+(54995x 84.9%)+(33717 x 50.8)] / 190,735 **=** 73.4**%**				

Source: Analysis of Land Registry data

Appendix 4 Small plots for sale

Table A4.1 Asking prices for building sites/plots: values					
Location	*No dwgs*	*Site area acres (ha)*	*Asking price £K*	*Land value £m*	
				Per acre	*Per ha*
137-139 Horninglow St Burton	n/a	0.66 (0.27)	595k	0.902	2.23
25-33 Uxbridge St Burton	8	0.26 (0.11)	250k	0.962	2.38
Dover Rd Garage Burton	3	0.28 (0.11)	299k	1.068	2.64

Source: Internet listings March 2010

Appendix 5 Construction cost calculation

A5.1 The Table below shows stage by stage how unit construction cost is calculated consistent with the explanation in Chapter 5.

A5.2 The starting point is the Fordham data base as indexed to March 2010 using BCIS General Cost Index value of 289.8 for March 2010.

Table A5.1 Example of construction cost calculation – site B

	Adjustment	*Build cost £ per*	
		Sq ft	*Sq m*
Base cost England & Wales at Mar 2010 for scheme of 0% 2 storey flats, 0% 3 storey flats, 67% 2 storey house, 33% 3 storey house	Base cost	83.14	894.6
Rebase to East Staffordshire	-14.0%	71.50	769.3
Level 3 & 10% non renewable	+£6 per sq ft/ £64.6 per sq m	77.50	833.9
Higher spec	+4.0%	80.60	867.3
Small site loading	+10.0%	88.60	953.3
Rounded figure	round to £0.50 per sq ft, £5.0 per sq m	88.50	955

Source: Fordham Research data & BCIS indices

Appendix 6 Proposed benchmark appraisal

A6.1 It is proposed that the benchmark site appraisal should be based upon an amended version of Site 6, Urban edge brownfield. The (minimal) amendment is necessary to ensure it is just viable at the proposed Borough wide target level of 15%.

A6.2 The alternative use value for site 6 is industrial/warehousing land.

A6.3 The periodic review would be initiated by a specifically constituted forum including stakeholders. It would involve establishing current values of the indices in the Table below. For information the table shows March 2010 'starting' values.

Table A6.1 Indices for automatic updating of Dynamic Viability

Variable	*Proposed index*	*Starting value*
House Price	Halifax House Price Index Regional (**Not** Seasonally Adjusted)	West Midlands Q1 2010 = 555.7
	Halifax House Price Index (free, monthly) http://www.lloydsbankinggroup.com/media1/research/halifax_hpi.asp	
Build cost	BCIS General Building Cost Index	March 2010 = 289.8
	BCIS Review Online (subscription only, monthly) Produced by the Royal Institute of Chartered Surveyors http://www.bcis.co.uk/online	
Alternative use value	Property Market Report (VOA): Value of Industrial Land for Leicester	January 2010 = figure is £400k per ha
	Valuation Office Agency: Property Market Reports (free, six monthly) http://www.voa.gov.uk/publications/index.htm	

Sources: As shown in the boxes of the table

A6.4 The results from the sequence of appraisals are set out in the following table(s). The tables show what revised percentage target would apply to the particular price/cost/alternative use value combination.

A6.5 The following are two sets of eight tabulations of the Coarse and Fine Matrices described in Chapter 8. They provide for the full range of possible targets and also the Alternative Use value check in 8 bands of alternative use value indexes.

East Staffordshire Benchmark Site Appraisal

Coarse Matrix

Table C1 Base Alternative Use Value: 0% Change - £150,000 Per Acre

Cost Change BCIS Index	%		Price Change HPI -20%	-10%	0%	10%	20%	30%	40%	50%	60%
			444.6	**500.1**	**555.7**	**611.3**	**666.8**	**722.4**	**778.0**	**833.6**	**889.1**
	-20%	**231.8**	10%	30%	45%	50%	55%	55%	55%	55%	55%
	-10%	**260.8**	0%	10%	30%	40%	45%	55%	55%	55%	55%
	0%	**289.8**	0%	0%	15%	25%	35%	45%	50%	55%	55%
	10%	**318.8**	0%	0%	0%	15%	25%	35%	40%	45%	50%
	20%	**347.8**	0%	0%	0%	0%	15%	25%	35%	40%	45%
	30%	**376.7**	0%	0%	0%	0%	5%	15%	25%	30%	35%
	40%	**405.7**	0%	0%	0%	0%	0%	5%	15%	25%	30%
	50%	**434.7**	0%	0%	0%	0%	0%	0%	5%	15%	25%

Source: Affordable Housing Viability Study 2010

Table C2 Alternative Use Value: - 60% Change - £60,000 Per Acre

Cost Change BCIS Index	%		Price Change HPI -20%	-10%	0%	10%	20%	30%	40%	50%	60%
			444.6	**500.1**	**555.7**	**611.3**	**666.8**	**722.4**	**778.0**	**833.6**	**889.1**
	-20%	**231.8**	25%	40%	55%	55%	55%	55%	55%	55%	55%
	-10%	**260.8**	0%	25%	40%	45%	55%	55%	55%	55%	55%
	0%	**289.8**	0%	5%	20%	35%	45%	50%	55%	55%	55%
	10%	**318.8**	0%	0%	5%	20%	35%	40%	45%	50%	55%
	20%	**347.8**	0%	0%	0%	10%	20%	30%	40%	45%	50%
	30%	**376.7**	0%	0%	0%	0%	10%	20%	30%	35%	40%
	40%	**405.7**	0%	0%	0%	0%	0%	10%	20%	30%	35%
	50%	**434.7**	0%	0%	0%	0%	0%	0%	15%	20%	30%

Source: Affordable Housing Viability Study 2010

Table C3 Alternative Use Value: - 40% Change - £90,000 Per Acre

			Price Change HPI								
	%		*-20%*	*-10%*	*0%*	*10%*	*20%*	*30%*	*40%*	*50%*	*60%*
			444.6	**500.1**	**555.7**	**611.3**	**666.8**	**722.4**	**778.0**	**833.6**	**889.1**
Cost Change BCIS Index	*-20%*	**231.8**	20%	40%	50%	55%	55%	55%	55%	55%	55%
	-10%	**260.8**	0%	20%	35%	45%	50%	55%	55%	55%	55%
	0%	**289.8**	0%	0%	20%	30%	40%	50%	55%	55%	55%
	10%	**318.8**	0%	0%	5%	20%	30%	40%	45%	50%	55%
	20%	**347.8**	0%	0%	0%	5%	20%	30%	35%	40%	45%
	30%	**376.7**	0%	0%	0%	0%	10%	20%	30%	35%	40%
	40%	**405.7**	0%	0%	0%	0%	0%	10%	20%	25%	35%
	50%	**434.7**	0%	0%	0%	0%	0%	0%	10%	20%	25%

Source: Affordable Housing Viability Study 2010

Table C4 Alternative Use Value: - 20% Change - £120,000 Per Acre

			Price Change HPI								
	%		*-20%*	*-10%*	*0%*	*10%*	*20%*	*30%*	*40%*	*50%*	*60%*
			444.6	**500.1**	**555.7**	**611.3**	**666.8**	**722.4**	**778.0**	**833.6**	**889.1**
Cost Change BCIS Index	*-20%*	**231.8**	15%	35%	45%	55%	55%	55%	55%	55%	55%
	-10%	**260.8**	0%	15%	30%	40%	50%	55%	55%	55%	55%
	0%	**289.8**	0%	0%	15%	30%	40%	45%	50%	55%	55%
	10%	**318.8**	0%	0%	0%	15%	30%	35%	45%	50%	55%
	20%	**347.8**	0%	0%	0%	5%	15%	25%	35%	40%	45%
	30%	**376.7**	0%	0%	0%	0%	5%	15%	25%	35%	40%
	40%	**405.7**	0%	0%	0%	0%	0%	10%	20%	25%	30%
	50%	**434.7**	0%	0%	0%	0%	0%	0%	10%	20%	25%

Source: Affordable Housing Viability Study 2010

Table C5 Alternative Use Value: + 20% Change - £180,000 Per Acre

			Price Change HPI								
	%		*-20%*	*-10%*	*0%*	*10%*	*20%*	*30%*	*40%*	*50%*	*60%*
			444.6	**500.1**	**555.7**	**611.3**	**666.8**	**722.4**	**778.0**	**833.6**	**889.1**
Cost Change BCIS Index	*-20%*	**231.8**	0%	25%	40%	50%	55%	55%	55%	55%	55%
	-10%	**260.8**	0%	5%	25%	35%	45%	50%	55%	55%	55%
	0%	**289.8**	0%	0%	10%	25%	35%	40%	50%	55%	55%
	10%	**318.8**	0%	0%	0%	10%	25%	35%	40%	45%	50%
	20%	**347.8**	0%	0%	0%	0%	10%	25%	30%	40%	45%
	30%	**376.7**	0%	0%	0%	0%	0%	15%	25%	30%	35%
	40%	**405.7**	0%	0%	0%	0%	0%	5%	15%	20%	30%
	50%	**434.7**	0%	0%	0%	0%	0%	0%	5%	15%	20%

Source: Affordable Housing Viability Study 2010

Table C6 Alternative Use Value: + 40% Change - £210,000 Per Acre

		Price Change HPI								
	%	-20%	-10%	0%	10%	20%	30%	40%	50%	60%
		444.6	500.1	555.7	611.3	666.8	722.4	778.0	833.6	889.1
Cost Change BCIS Index	-20% 231.8	0%	20%	35%	45%	55%	55%	55%	55%	55%
	-10% 260.8	0%	5%	20%	35%	45%	50%	55%	55%	55%
	0% 289.8	0%	0%	5%	20%	30%	40%	45%	50%	55%
	10% 318.8	0%	0%	0%	10%	20%	30%	40%	45%	50%
	20% 347.8	0%	0%	0%	0%	10%	20%	30%	35%	40%
	30% 376.7	0%	0%	0%	0%	0%	10%	20%	30%	35%
	40% 405.7	0%	0%	0%	0%	0%	0%	10%	20%	30%
	50% 434.7	0%	0%	0%	0%	0%	0%	5%	15%	20%

Source: Affordable Housing Viability Study 2010

Table C7 Alternative Use Value: + 60% Change - £240,000 Per Acre

		Price Change HPI								
	%	-20%	-10%	0%	10%	20%	30%	40%	50%	60%
		444.6	500.1	555.7	611.3	666.8	722.4	778.0	833.6	889.1
Cost Change BCIS Index	-20% 231.8	0%	20%	35%	45%	50%	55%	55%	55%	55%
	-10% 260.8	0%	0%	20%	30%	40%	50%	55%	55%	55%
	0% 289.8	0%	0%	5%	20%	30%	40%	45%	50%	55%
	10% 318.8	0%	0%	0%	5%	20%	30%	35%	40%	45%
	20% 347.8	0%	0%	0%	0%	10%	20%	30%	35%	40%
	30% 376.7	0%	0%	0%	0%	0%	10%	20%	25%	35%
	40% 405.7	0%	0%	0%	0%	0%	0%	10%	20%	25%
	50% 434.7	0%	0%	0%	0%	0%	0%	0%	10%	20%

Source: Affordable Housing Viability Study 2010

Table C8 Alternative Use Value: + 80% Change - £270,000 Per Acre

		Price Change HPI								
	%	-20%	-10%	0%	10%	20%	30%	40%	50%	60%
		444.6	500.1	555.7	611.3	666.8	722.4	778.0	833.6	889.1
Cost Change BCIS Index	-20% 231.8	0%	15%	30%	40%	50%	55%	55%	55%	55%
	-10% 260.8	0%	0%	15%	30%	40%	45%	50%	55%	55%
	0% 289.8	0%	0%	0%	15%	30%	35%	45%	50%	50%
	10% 318.8	0%	0%	0%	5%	15%	25%	35%	40%	45%
	20% 347.8	0%	0%	0%	0%	5%	15%	25%	35%	40%
	30% 376.7	0%	0%	0%	0%	0%	5%	15%	25%	30%
	40% 405.7	0%	0%	0%	0%	0%	0%	10%	20%	25%
	50% 434.7	0%	0%	0%	0%	0%	0%	0%	10%	20%

Source: Affordable Housing Viability Study 2010

East Staffordshire Benchmark Site Appraisal

Fine Matrix

Table F1 Base Alternative Use Value: 0% Change - £150,000 Per Acre

Cost Change BCIS Index	%		Price Change HPI -8%	-4%	0%	4%	8%	12%	16%	20%	24%
			511.2	**533.5**	**555.7**	**577.9**	**600.2**	**622.4**	**644.6**	**666.8**	**689.1**
	-8%	**266.6**	10%	20%	25%	30%	35%	40%	40%	45%	50%
	-4%	**278.2**	5%	10%	20%	25%	30%	35%	40%	40%	45%
	0%	**289.8**	0%	5%	15%	20%	25%	30%	35%	35%	40%
	4%	**301.4**	0%	0%	5%	15%	20%	25%	30%	30%	35%
	8%	**313.0**	0%	0%	0%	5%	15%	20%	25%	30%	30%
	12%	**324.6**	0%	0%	0%	0%	10%	15%	20%	25%	25%
	16%	**336.2**	0%	0%	0%	0%	5%	10%	15%	20%	25%
	20%	**347.8**	0%	0%	0%	0%	0%	5%	10%	15%	20%

Source: Affordable Housing Viability Study 2010

Table F2 Alternative Use Value: - 30% Change - £105,000 Per Acre

Cost Change BCIS Index	%		Price Change HPI -8%	-4%	0%	4%	8%	12%	16%	20%	24%
			511.2	**533.5**	**555.7**	**577.9**	**600.2**	**622.4**	**644.6**	**666.8**	**689.1**
	-8%	**266.6**	15%	25%	30%	35%	40%	45%	45%	50%	50%
	-4%	**278.2**	10%	15%	25%	30%	35%	40%	40%	45%	45%
	0%	**289.8**	0%	10%	15%	25%	30%	35%	35%	40%	45%
	4%	**301.4**	0%	5%	10%	20%	25%	30%	30%	35%	40%
	8%	**313.0**	0%	0%	5%	10%	20%	25%	25%	30%	35%
	12%	**324.6**	0%	0%	0%	5%	10%	20%	25%	25%	30%
	16%	**336.2**	0%	0%	0%	0%	5%	15%	20%	25%	25%
	20%	**347.8**	0%	0%	0%	0%	0%	10%	15%	20%	20%

Source: Affordable Housing Viability Study 2010

Table F3 Alternative Use Value: - 20% Change - £120,000 Per Acre

		Price Change HPI								
	%		-8%	-4%	0%	4%	8%	12%	16%	20%	24%
			511.2	533.5	555.7	577.9	600.2	622.4	644.6	666.8	689.1
Cost Change BCIS Index	-8%	266.6	15%	20%	30%	35%	40%	40%	45%	50%	50%
	-4%	278.2	10%	15%	20%	30%	30%	35%	40%	45%	45%
	0%	289.8	0%	10%	15%	20%	25%	30%	35%	40%	40%
	4%	301.4	0%	0%	10%	15%	20%	25%	30%	35%	40%
	8%	313.0	0%	0%	5%	10%	15%	20%	25%	30%	35%
	12%	324.6	0%	0%	0%	5%	10%	15%	20%	25%	30%
	16%	336.2	0%	0%	0%	0%	5%	10%	15%	20%	25%
	20%	347.8	0%	0%	0%	0%	0%	5%	10%	15%	20%

Source: Affordable Housing Viability Study 2010

Table F4 Alternative Use Value: - 10% Change - £135,000 Per Acre

		Price Change HPI								
	%		-8%	-4%	0%	4%	8%	12%	16%	20%	24%
			511.2	533.5	555.7	577.9	600.2	622.4	644.6	666.8	689.1
Cost Change BCIS Index	-8%	266.6	15%	20%	25%	30%	35%	40%	45%	45%	50%
	-4%	278.2	5%	15%	20%	25%	30%	35%	40%	40%	45%
	0%	289.8	0%	5%	15%	20%	25%	30%	35%	40%	40%
	4%	301.4	0%	0%	10%	15%	20%	25%	30%	35%	35%
	8%	313.0	0%	0%	0%	10%	15%	20%	25%	30%	35%
	12%	324.6	0%	0%	0%	5%	10%	15%	20%	25%	30%
	16%	336.2	0%	0%	0%	0%	5%	10%	15%	20%	25%
	20%	347.8	0%	0%	0%	0%	0%	5%	10%	15%	20%

Source: Affordable Housing Viability Study 2010

Table F5 Alternative Use Value: + 10% Change - £165,000 Per Acre

		Price Change HPI								
	%		-8%	-4%	0%	4%	8%	12%	16%	20%	24%
			511.2	533.5	555.7	577.9	600.2	622.4	644.6	666.8	689.1
Cost Change BCIS Index	-8%	266.6	10%	15%	25%	30%	35%	40%	40%	45%	45%
	-4%	278.2	0%	10%	15%	25%	30%	35%	35%	40%	45%
	0%	289.8	0%	5%	10%	15%	25%	30%	30%	35%	40%
	4%	301.4	0%	0%	5%	10%	20%	25%	25%	30%	35%
	8%	313.0	0%	0%	0%	5%	10%	20%	25%	25%	30%
	12%	324.6	0%	0%	0%	0%	5%	15%	20%	20%	25%
	16%	336.2	0%	0%	0%	0%	0%	10%	15%	20%	20%
	20%	347.8	0%	0%	0%	0%	0%	5%	10%	15%	20%

Source: Affordable Housing Viability Study 2010

Table F6 Alternative Use Value: + 20% Change - £600,000 Per Acre

			Price Change HPI								
	%		*-8%*	*-4%*	*0%*	*4%*	*8%*	*12%*	*16%*	*20%*	*24%*
			511.2	**533.5**	**555.7**	**577.9**	**600.2**	**622.4**	**644.6**	**666.8**	**689.1**
Cost Change BCIS Index	*-8%*	**266.6**	5%	15%	20%	25%	30%	35%	40%	45%	45%
	-4%	**278.2**	0%	10%	15%	20%	25%	30%	35%	40%	40%
	0%	**289.8**	0%	0%	10%	15%	20%	25%	30%	35%	40%
	4%	**301.4**	0%	0%	5%	10%	15%	20%	25%	30%	35%
	8%	**313.0**	0%	0%	0%	5%	10%	15%	20%	25%	30%
	12%	**324.6**	0%	0%	0%	0%	5%	10%	15%	20%	25%
	16%	**336.2**	0%	0%	0%	0%	0%	5%	10%	15%	20%
	20%	**347.8**	0%	0%	0%	0%	0%	0%	5%	10%	15%

Source: Affordable Housing Viability Study 2010

Table F7 Alternative Use Value: + 30% Change - £195,000 Per Acre

			Price Change HPI								
	%		*-8%*	*-4%*	*0%*	*4%*	*8%*	*12%*	*16%*	*20%*	*24%*
			511.2	**533.5**	**555.7**	**577.9**	**600.2**	**622.4**	**644.6**	**666.8**	**689.1**
Cost Change BCIS Index	*-8%*	**266.6**	5%	15%	20%	25%	30%	35%	40%	40%	45%
	-4%	**278.2**	0%	5%	15%	20%	25%	30%	35%	40%	40%
	0%	**289.8**	0%	0%	10%	15%	20%	25%	30%	35%	35%
	4%	**301.4**	0%	0%	0%	10%	15%	20%	25%	30%	35%
	8%	**313.0**	0%	0%	0%	5%	10%	15%	20%	25%	30%
	12%	**324.6**	0%	0%	0%	0%	5%	10%	15%	20%	25%
	16%	**336.2**	0%	0%	0%	0%	0%	5%	10%	15%	20%
	20%	**347.8**	0%	0%	0%	0%	0%	0%	5%	10%	15%

Source: Affordable Housing Viability Study 2010

Table F8 Alternative Use Value: + 40% Change - £210,000 Per Acre

			Price Change HPI								
	%		*-8%*	*-4%*	*0%*	*4%*	*8%*	*12%*	*16%*	*20%*	*24%*
			511.2	**533.5**	**555.7**	**577.9**	**600.2**	**622.4**	**644.6**	**666.8**	**689.1**
Cost Change BCIS Index	*-8%*	**266.6**	5%	10%	20%	25%	30%	35%	35%	40%	45%
	-4%	**278.2**	0%	5%	10%	20%	25%	30%	35%	35%	40%
	0%	**289.8**	0%	0%	5%	15%	20%	25%	30%	30%	35%
	4%	**301.4**	0%	0%	0%	5%	15%	20%	25%	30%	30%
	8%	**313.0**	0%	0%	0%	0%	10%	15%	20%	25%	25%
	12%	**324.6**	0%	0%	0%	0%	5%	10%	15%	20%	25%
	16%	**336.2**	0%	0%	0%	0%	0%	5%	10%	15%	20%
	20%	**347.8**	0%	0%	0%	0%	0%	0%	5%	10%	15%

Source: Affordable Housing Viability Study 2010

Appendix 7 Financial appraisal summaries

A7.1 The development viability **summaries** contained in the following pages set out the assumptions and outputs of the viability appraisals for a 10% affordable scenario.

SITE 1: Burton Urban Extension

Input assumptions | **Scenario & option** | Affordable 10% = 70% social rented 30% intermediate

East Staffs Viability

Site details

Site		1 Urban Extension
Location		Urban
Area	ha	75.00
	acres	185.33
No dwgs		2000
Density dw/ha		26.7

		£k
Contingency		
allowance	2.50%	3,876
Development costs		
standard % build	23.50%	37,342
plus abnormals	0.9%	1,395
Total	24%	
Design fees		
on build costs	10.0%	15,890
on dev costs	8%	
Planning gain & Grant contributions		
PG £ per dwg	3,000	6,000
Grant £ per dwg	0	0

PG ALL

Dwellings

Dwellings		% of dwgs	% of units	ave floor space gross sq ft	ave floor space net sq ft	build cost per sq ft	build index = 1.000	sales value per sq ft
Market housing	1,800.0	90.00%	90.00%	975	958	79.50	79.50	180.00
						0.0%		
Affordable soc rent	140.0	7.00%	7.0%	975	958	79.50	79.50	76.00
						0.0%		
Affordable sh oship	60.0	3.00%	3.0%	975	958	79.50	79.50	126.00
Total dwgs	2,000.0	100.00%	100.0%					
			0.0%	0	0	0.00	0.00	0.00
			0.0%	0	0	0.00	0.00	0.00
Total units	2,000.0		100.0%	1,950,000	1,916,000		£155,025,000	£327,827,600

Floorspace density = 10,339 net sq ft per acre

Other costs

Planning	586.4	£ per dwelling
Survey	200	£ per dwelling
Marketing	0	£ per dwelling

Interest

% per annum	7.50%

Notes

SITE 1 LAND COST & PHASING

Land

Iterate to achieve 20.0% profit

		Affordable	No affordable	Hectare: Affordable	Hectare: No affordable
Land purchase price	£	**22,341,313**	**30,900,246**		
RV per acre	£	**120,552**	**166,735**	**£297,884**	**£412,003**
Dev profit	£	**53,497,702**	**57,507,781**		
Total costs	£	**274,332,298**	**287,374,619**		
profit as % of costs		**19.50%**	**20.01%**		

Programme		Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Years 3-6 Q1	Q2	Q3	Q4	Year 7 Q1	Q2	Q3	Q4	Year 8 Q1	Q2	Q3	Q4	TOTALS
Units started	*Market housing*			22.5	49.5	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0					1,800.0
	Affordable soc rent			1.8	3.9	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6					140.0
	Affordable sh oship			0.7	1.7	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4					60.0
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					0.0
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					0.0
	TOTAL	0	0	25	55	80	80	80	80	80	80	80	80	80	80	80	80					2,000.0
Units 'built'	*Market housing*					23	50	72	72	72	72	72	72	72	72	72	72	72	72	0	0	1,800
+2Q	*Affordable soc rent*					2	4	6	6	6	6	6	6	6	6	6	6	6	6	0	0	140
	Affordable sh oship					1	2	2	2	2	2	2	2	2	2	2	2	2	2	0	0	60
	0					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Units completed	*Market housing*						23	50	72	72	72	72	72	72	72	72	72	72	72	72	0	1,800
+3Q	*Affordable soc rent*						2	4	6	6	6	6	6	6	6	6	6	6	6	6	0	140
	Affordable sh oship						1	2	2	2	2	2	2	2	2	2	2	2	2	2	0	60
	0						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Units purchased	*Market housing*							23	50	72	72	72	72	72	72	72	72	72	72	72	72	1,800
+4Q	*Affordable soc rent*							2	4	6	6	6	6	6	6	6	6	6	6	6	6	140
	Affordable sh oship							1	2	2	2	2	2	2	2	2	2	2	2	2	2	60
	0							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SITE 1 CASH FLOW AFFORDABLE

		rate	Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	Year 5 Q1	Q2	Q3	Q4	Year 6 Q1	Q2	Q3	Q4	Year 7 Q1	Q2	Q3	Q4	Year 8 Q1	Q2	Q3	Q4	TOTALS
INCOME																																			
Housing sales	*Market housing*		0	0	0	0	0	0	3,880	8,536	12,416	12,416	12,416	12,416	12,416	12,416	12,416	12,416	12,416	12,416	12,416	12,416	12,416	12,416	12,416	12,416	12,416	12,416	12,416	12,416	12,416	12,416	12,416	12,416	310,392
	Affordable soc rent		0	0	0	0	0	0	127	280	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	10,193
	Affordable sh oship		0	0	0	0	0	0	91	199	290	290	290	290	290	290	290	290	290	290	290	290	290	290	290	290	290	290	290	290	290	290	290	290	7,242
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sales fees		0	0	0	0	0	0	-138	-303	-441	-441	-441	-441	-441	-441	-441	-441	-441	-441	-441	-441	-441	-441	-441	-441	-441	-441	-441	-441	-441	-441	-441	-441	-11,023
Total income			**0**	**0**	**0**	**0**	**0**	**0**	**4,098**	**9,015**	**13,113**	**13,113**	**13,113**	**13,113**	**13,113**	**13,113**	**13,113**	**13,113**	**13,113**	**13,113**	**13,113**	**13,113**	**13,113**	**13,113**	**13,113**	**13,113**	**13,113**	**13,113**	**13,113**	**13,113**	**13,113**	**13,113**	**13,113**	**13,113**	**327,828**
COSTS																																			
Land	*Land acquisition*		22,341																																22,341
	Stamp duty		894																																894
	Purchase fees		614																																614
	Total																																		**23,849**
Build costs	*Market housing*		0	0	0	0	1,744	3,837	5,581	5,581	5,581	5,581	5,581	5,581	5,581	5,581	5,581	5,581	5,581	5,581	5,581	5,581	5,581	5,581	5,581	5,581	5,581	5,581	5,581	5,581	5,581	5,581	0	0	139,523
	Affordable soc rent		0	0	0	0	136	298	434	434	434	434	434	434	434	434	434	434	434	434	434	434	434	434	434	434	434	434	434	434	434	434	0	0	10,852
	Affordable sh oship		0	0	0	0	58	128	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	0	0	4,651
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Build contingency	*2.5%*	0	0	0	0	48	107	155	155	155	155	155	155	155	155	155	155	155	155	155	155	155	155	155	155	155	155	155	155	155	155	0	0	3,876
	Total																																		**158,901**
Dev costs	*Upfront*	*11.8%*	4,668	4,668	4,668	4,668																													18,671
	Build related	*11.8%*	0	0	233	513	747	747	747	747	747	747	747	747	747	747	747	747	747	747	747	747	747	747	747	747	747	747	747	747	0	0			18,671
	Abnormals	*1%*	698	698																															1,395
	Total																																		**38,737**
Fees	*Fees on build costs*	*10.0%*	0	0	0	0	199	437	636	636	636	636	636	636	636	636	636	636	636	636	636	636	636	636	636	636	636	636	636	636	636	636	0	0	15,890
	Fees on dev costs	*8.0%*	429	429	392	414	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	0	0	0	0	3,099
	Total																																		**18,989**
PG	*Planning gain*				75	165	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	0	0	0	0	6,000
	Total																																		**6,000**
Grant	*Grant*				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																																		**0**
Other	*Planning*	*£586*	391	391	391																														1,173
	Survey	*£200*	400																																400
	Marketing	*£0*			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																																		**1,573**
Sales fees	*b/forward from above*		0	0	0	0	0	0	138	303	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	11,023
Total costs			**30,435**	**6,185**	**5,759**	**5,761**	**3,231**	**5,853**	**8,176**	**8,341**	**8,479**	**8,479**	**8,479**	**8,479**	**8,479**	**8,479**	**8,479**	**8,479**	**8,479**	**8,479**	**8,479**	**8,479**	**8,479**	**8,479**	**8,479**	**8,479**	**8,479**	**8,479**	**8,479**	**8,479**	**7,433**	**7,433**	**441**	**441**	**259,072**
Net profit/loss from quarter			**-30,435**	**-6,185**	**-5,759**	**-5,761**	**-3,231**	**-5,853**	**-4,078**	**674**	**4,634**	**4,634**	**4,634**	**4,634**	**4,634**	**4,634**	**4,634**	**4,634**	**4,634**	**4,634**	**4,634**	**4,634**	**4,634**	**4,634**	**4,634**	**4,634**	**4,634**	**4,634**	**4,634**	**4,634**	**5,681**	**5,681**	**12,672**	**12,672**	**68,756**
Profit/loss bf from last quarter			0	-31,005	-37,888	-44,465	-51,168	-55,419	-62,421	-67,746	-68,330	-64,890	-61,386	-57,816	-54,179	-50,474	-46,699	-42,854	-38,937	-34,946	-30,880	-26,738	-22,519	-18,220	-13,841	-9,379	-4,834	-204	4,513	9,319	14,215	20,268	26,435	39,841	
Cumulative profit/loss			-30,435	-37,191	-43,647	-50,226	-54,399	-61,272	-66,499	-67,072	-63,696	-60,256	-56,752	-53,182	-49,545	-45,840	-42,065	-38,220	-34,303	-30,312	-26,246	-22,104	-17,885	-13,586	-9,207	-4,745	-200	4,430	9,147	13,953	19,895	25,949	39,107	52,513	
Interest	*Charged at*	*7.50%*	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	
	Total		-571	-697	-818	-942	-1,020	-1,149	-1,247	-1,258	-1,194	-1,130	-1,064	-997	-929	-859	-789	-717	-643	-568	-492	-414	-335	-255	-173	-89	-4	83	172	262	373	487	733	985	**-15,260**
Cumulative developer profit carried forward to RV calc			**-31,005**	**-37,888**	**-44,465**	**-51,168**	**-55,419**	**-62,421**	**-67,746**	**-68,330**	**-64,890**	**-61,386**	**-57,816**	**-54,179**	**-50,474**	**-46,699**	**-42,854**	**-38,937**	**-34,946**	**-30,880**	**-26,738**	**-22,519**	**-18,220**	**-13,841**	**-9,379**	**-4,834**	**-204**	**4,513**	**9,319**	**14,215**	**20,268**	**26,435**	**39,841**	**53,498**	**53,495**

SITE 2: Village large greenfield

Input assumptions

Scenario & option Affordable 10% = 70% social rented 30% intermediate

East Staffs Viability

Site details

Site		2 Large greenfield
Location		Village
Area	ha	15.24
	acres	37.66
No dwgs		500
Density dw/ha		32.8

		£k
Contingency		
allowance	2.50%	887
Development costs		
standard % build	17.50%	6,367
plus abnormals	0.0%	0
Total	18%	
Design fees		
on build costs	10.0%	3,638
on dev costs	8%	
Planning gain & Grant contributions		
PG £ per dwg	3,000	1,500
Grant £ per dwg	0	0

PG ALL

Dwellings

Dwellings		% of dwgs	% of units	ave floor space gross sq ft	ave floor space net sq ft	build cost per sq ft	build index = 1.000	sales value per sq ft
Market housing	450.0	90.00%	90.00%	893	875	79.50	79.50	184.00
						0.0%		
Affordable soc rent	35.0	7.00%	7.0%	893	875	79.50	79.50	76.00
						0.0%		
Affordable sh oship	15.0	3.00%	3.0%	893	875	79.50	79.50	126.00
Total dwgs	500.0	100.00%	100.0%					
			0.0%	0	0	0.00	0.00	0.00
			0.0%	0	0	0.00	0.00	0.00
Total units	500.0		100.0%	446,500	437,500		£35,496,750	£76,431,250

Floorspace density = 11,618 net sq ft per acre

Other costs

Planning	560.5	£ per dwelling
Survey	200	£ per dwelling
Marketing	0	£ per dwelling

Interest
% per annum 7.50%

Notes

SITE 2 LAND COST & PHASING

Land

Iterate to achieve 20.0% profit

		Affordable	No affordable	Hectare: Affordable	Hectare: No affordable
Land purchase price	£	**8,384,081**	**10,529,670**		
RV per acre	£	**222,637**	**279,613**	**£550,137**	**£690,923**
Dev profit	£	**12,472,656**	**13,433,724**		
Total costs	£	**63,960,544**	**67,068,226**		
profit as % of costs		**19.50%**	**20.03%**		

Programme		Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Years 3-5 Q1	Q2	Q3	Q4	Year 6 Q1	Q2	Q3	Q4	Year 7 Q1	Q2	Q3	Q4	TOTALS
Units started	*Market housing*			22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	0.0	0.0	0.0	0.0	0.0	0.0	450.0
	Affordable soc rent			1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	35.0
	Affordable sh oship			0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	15.0
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	0	0	25	25	25	25	25	25	25	25	25	25	25	25	0	0	0	0	0	0	500.0
Units 'built'	*Market housing*					23	23	23	23	23	23	23	23	23	23	23	23	0	0	0	0	450
+2Q	*Affordable soc rent*					2	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0	35
	Affordable sh oship					1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	15
	0					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Units completed	*Market housing*						23	23	23	23	23	23	23	23	23	23	23	23	0	0	0	450
+3Q	*Affordable soc rent*						2	2	2	2	2	2	2	2	2	2	2	2	0	0	0	35
	Affordable sh oship						1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	15
	0						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Units purchased	*Market housing*							23	23	23	23	23	23	23	23	23	23	23	23	0	0	450
+4Q	*Affordable soc rent*							2	2	2	2	2	2	2	2	2	2	2	2	0	0	35
	Affordable sh oship							1	1	1	1	1	1	1	1	1	1	1	1	0	0	15
	0							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SITE 2 CASH FLOW AFFORDABLE

		rate	Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	Year 5 Q1	Q2	Q3	Q4	Year 6 Q1	Q2	Q3	Q4	Year 7 Q1	Q2	Q3	Q4	TOTALS
INCOME																															
Housing sales	*Market housing*		0	0	0	0	0	0	3,623	3,623	3,623	3,623	3,623	3,623	3,623	3,623	3,623	3,623	3,623	3,623	3,623	3,623	3,623	3,623	3,623	3,623	3,623	3,623	0	0	72,450
	Affordable soc rent		0	0	0	0	0	0	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	0	0	2,328
	Affordable sh oship		0	0	0	0	0	0	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	0	0	1,654
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sales fees		0	0	0	0	0	0	-129	-129	-129	-129	-129	-129	-129	-129	-129	-129	-129	-129	-129	-129	-129	-129	-129	-129	-129	-129	0	0	-2,572
Total income			**0**	**0**	**0**	**0**	**0**	**0**	**3,822**	**3,822**	**3,822**	**3,822**	**3,822**	**3,822**	**3,822**	**3,822**	**3,822**	**3,822**	**3,822**	**3,822**	**3,822**	**3,822**	**3,822**	**3,822**	**3,822**	**3,822**	**3,822**	**3,822**	**0**	**0**	**76,431**
COSTS																															
Land	*Land acquisition*		8,384																												8,384
	Stamp duty		335																												335
	Purchase fees		231																												231
	Total																														**8,950**
Build costs	*Market housing*		0	0	0	0	1,597	1,597	1,597	1,597	1,597	1,597	1,597	1,597	1,597	1,597	1,597	1,597	1,597	1,597	1,597	1,597	1,597	1,597	1,597	1,597	0	0	0	0	31,947
	Affordable soc rent		0	0	0	0	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	0	0	0	0	2,485
	Affordable sh oship		0	0	0	0	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	0	0	0	0	1,065
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Build contingency	2.5%	0	0	0	0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	0	0	0	0	887
	Total																														**36,384**
Dev costs	*Upfront*	8.8%	796	796	796	796																									3,184
	Build related	8.8%	0	0	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	0	0	0	0	0	0	3,184
	Abnormals	0%	0	0																											0
	Total																														**6,367**
Fees	*Fees on build costs*	10.0%	0	0	0	0	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	0	0	0	0	3,638
	Fees on dev costs	8.0%	64	64	76	76	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	0	0	0	0	0	0	509
	Total																														**4,148**
PG	*Planning gain*				75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	0	0	0	0	0	0	1,500
	Total																														**1,500**
Grant	*Grant*				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																														**0**
Other	*Planning*	£561	93	93	93																										280
	Survey	£200	100																												100
	Marketing	£0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																														**380**
Sales fees	*b/forward from above*		0	0	0	0	0	0	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	0	0	**2,572**
Total costs			**10,003**	**953**	**1,200**	**1,106**	**2,248**	**2,248**	**2,377**	**2,377**	**2,377**	**2,377**	**2,377**	**2,377**	**2,377**	**2,377**	**2,377**	**2,377**	**2,377**	**2,377**	**2,377**	**2,377**	**2,377**	**2,377**	**2,130**	**2,130**	**129**	**129**	**0**	**0**	**60,302**
Net profit/loss from quarter			**-10,003**	**-953**	**-1,200**	**-1,106**	**-2,248**	**-2,248**	**1,445**	**1,445**	**1,445**	**1,445**	**1,445**	**1,445**	**1,445**	**1,445**	**1,445**	**1,445**	**1,445**	**1,445**	**1,445**	**1,445**	**1,445**	**1,445**	**1,692**	**1,692**	**3,693**	**3,693**	**0**	**0**	**16,130**
Profit/loss bf from last quarter			0	-10,190	-11,352	-12,788	-14,154	-16,710	-19,313	-18,203	-17,073	-15,921	-14,747	-13,552	-12,334	-11,093	-9,829	-8,541	-7,229	-5,892	-4,531	-3,144	-1,731	-291	1,176	2,921	4,700	8,550	12,473	12,473	
Cumulative profit/loss			-10,003	-11,143	-12,552	-13,894	-16,402	-18,958	-17,868	-16,759	-15,628	-14,476	-13,302	-12,107	-10,889	-9,648	-8,384	-7,096	-5,784	-4,448	-3,086	-1,699	-286	1,154	2,867	4,613	8,393	12,243	12,473	12,473	
Interest	*Charged at*	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	0.00%	0.00%	
	Total		-188	-209	-235	-261	-308	-355	-335	-314	-293	-271	-249	-227	-204	-181	-157	-133	-108	-83	-58	-32	-5	22	54	86	157	230	0	0	**-3,659**
Cumulative developer profit carried forward to RV calc			**-10,190**	**-11,352**	**-12,788**	**-14,154**	**-16,710**	**-19,313**	**-18,203**	**-17,073**	**-15,921**	**-14,747**	**-13,552**	**-12,334**	**-11,093**	**-9,829**	**-8,541**	**-7,229**	**-5,892**	**-4,531**	**-3,144**	**-1,731**	**-291**	**1,176**	**2,921**	**4,700**	**8,550**	**12,473**	**12,473**	**12,473**	**12,471**

SITE 3: Large urban brownfield

Input assumptions | **Scenario & option** | Affordable 10% = 70% social rented 30% intermediate

East Staffs Viability

Site details

Site		3 Large brownfield
Location		Urban
Area	ha	4.46
	acres	11.02
No dwgs		255
Density dw/ha		57.2

		£k
Contingency		
allowance	5.00%	906
Development costs		
standard % build	11.50%	2,187
plus abnormals	1.0%	191
Total	13%	
Design fees		
on build costs	10.0%	1,902
on dev costs	8%	
Planning gain & Grant contributions		
PG £ per dwg	3,000	765
Grant £ per dwg	0	0

PG ALL

Dwellings

Dwellings		% of dwgs	% of units	ave floor space gross sq ft	ave floor space net sq ft	build cost per sq ft	build index = 1.000	sales value per sq ft
Market housing	229.5	90.00%	90.00%	877	852	81.00	81.00	170.00
						0.0%		
Affordable soc rent	17.9	7.00%	7.0%	877	852	81.00	81.00	76.00
						0.0%		
Affordable sh oship	7.6	3.00%	3.0%	877	852	81.00	81.00	118.00
Total dwgs	255.0	100.00%	100.0%					
			0.0%	0	0	0.00	0.00	0.00
			0.0%	0	0	0.00	0.00	0.00
Total units	255.0		100.0%	223,635	217,260		£18,114,435	£35,165,704

Floorspace density = 19,714 net sq ft per acre

Other costs

Planning	527.4	£ per dwelling
Survey	500	£ per dwelling
Marketing	0	£ per dwelling

Interest
% per annum 7.50%

Notes

FORDHAM RESEARCH

SITE 3 LAND COST & PHASING

Land

Iterate to achieve 20.0% profit

		Affordable	No affordable	Hectare: Affordable	Hectare: No affordable
Land purchase price	£	**2,340,938**	**3,307,496**		
RV per acre	£	**212,414**	**300,118**	**£524,874**	**£741,591**
Dev profit	£	**5,738,583**	**6,156,930**		
Total costs	£	**29,428,546**	**30,778,695**		
profit as % of costs		**19.50%**	**20.00%**		

Programme		Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	Year 5 Q1	Q2	Q3	Q4	TOTALS
Units started	*Market housing*			13.5	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	0.0	0.0	0.0	0.0	0.0	229.5
	Affordable soc rent			1.1	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	17.9
	Affordable sh oship			0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	7.6
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	0	0	15	20	20	20	20	20	20	20	20	20	20	20	20	0	0	0	0	0	255.0
Units 'built'	*Market housing*					14	18	18	18	18	18	18	18	18	18	18	18	18	0	0	0	230
+2Q	*Affordable soc rent*					1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	18
	Affordable sh oship					0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	8
	0					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Units completed	*Market housing*						14	18	18	18	18	18	18	18	18	18	18	18	18	0	0	230
+3Q	*Affordable soc rent*						1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	18
	Affordable sh oship						0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	8
	0						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Units purchased	*Market housing*							14	18	18	18	18	18	18	18	18	18	18	18	18	0	230
+4Q	*Affordable soc rent*							1	1	1	1	1	1	1	1	1	1	1	1	1	0	18
	Affordable sh oship							0	1	1	1	1	1	1	1	1	1	1	1	1	0	8
	0							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SITE 3 CASH FLOW AFFORDABLE

		rate	Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	Year 5 Q1	Q2	Q3	Q4	TOTALS
INCOME																							
Housing sales	*Market housing*		0	0	0	0	0	0	1,955	2,607	2,607	2,607	2,607	2,607	2,607	2,607	2,607	2,607	2,607	2,607	2,607	0	33,241
	Affordable soc rent		0	0	0	0	0	0	68	91	91	91	91	91	91	91	91	91	91	91	91	0	1,156
	Affordable sh oship		0	0	0	0	0	0	45	60	60	60	60	60	60	60	60	60	60	60	60	0	769
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sales fees		0	0	0	0	0	0	-69	-93	-93	-93	-93	-93	-93	-93	-93	-93	-93	-93	-93	0	-1,181
Total income			**0**	**0**	**0**	**0**	**0**	**0**	**2,069**	**2,758**	**2,758**	**2,758**	**2,758**	**2,758**	**2,758**	**2,758**	**2,758**	**2,758**	**2,758**	**2,758**	**2,758**	**0**	**35,166**
COSTS																							
Land	*Land acquisition*		2,341																				2,341
	Stamp duty		94																				94
	Purchase fees		64																				64
	Total																						**2,499**
Build costs	*Market housing*		0	0	0	0	959	1,279	1,279	1,279	1,279	1,279	1,279	1,279	1,279	1,279	1,279	1,279	1,279	0	0	0	16,303
	Affordable soc rent		0	0	0	0	75	99	99	99	99	99	99	99	99	99	99	99	99	0	0	0	1,268
	Affordable sh oship		0	0	0	0	32	43	43	43	43	43	43	43	43	43	43	43	43	0	0	0	543
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Build contingency	*5.0%*	0	0	0	0	53	71	71	71	71	71	71	71	71	71	71	71	71	0	0	0	906
	Total																						**19,020**
Dev costs	*Upfront*	*5.8%*	273	273	273	273																	1,094
	Build related	*5.8%*	0	0	64	86	86	86	86	86	86	86	86	86	86	86	86	0	0	0	0	0	1,094
	Abnormals	*1%*	96	96																			191
	Total																						**2,378**
Fees	*Fees on build costs*	*10.0%*	0	0	0	0	112	149	149	149	149	149	149	149	149	149	149	149	149	0	0	0	1,902
	Fees on dev costs	*8.0%*	30	30	27	29	7	7	7	7	7	7	7	7	7	7	7	0	0	0	0	0	190
	Total																						**2,092**
PG	*Planning gain*				45	60	60	60	60	60	60	60	60	60	60	60	60	0	0	0	0	0	765
	Total																						**765**
Grant	*Grant*				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																						**0**
Other	*Planning*	*£527*	45	45	45																		134
	Survey	*£500*	128																				128
	Marketing	*£0*			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																						**262**
Sales fees	*b/forward from above*		0	0	0	0	0	0	69	93	93	93	93	93	93	93	93	93	93	93	93	0	**1,181**
Total costs			**3,070**	**443**	**455**	**448**	**1,383**	**1,794**	**1,863**	**1,886**	**1,886**	**1,886**	**1,886**	**1,886**	**1,886**	**1,886**	**1,886**	**1,734**	**1,734**	**93**	**93**	**0**	**28,198**
Net profit/loss from quarter			**-3,070**	**-443**	**-455**	**-448**	**-1,383**	**-1,794**	**206**	**872**	**872**	**872**	**872**	**872**	**872**	**872**	**872**	**1,025**	**1,025**	**2,665**	**2,665**	**0**	**6,968**
Profit/loss bf from last quarter			0	-3,127	-3,637	-4,169	-4,703	-6,201	-8,144	-8,087	-7,351	-6,600	-5,835	-5,057	-4,263	-3,455	-2,631	-1,792	-782	247	2,967	5,739	
Cumulative profit/loss			-3,070	-3,571	-4,092	-4,617	-6,086	-7,994	-7,938	-7,215	-6,479	-5,728	-4,964	-4,185	-3,391	-2,583	-1,759	-768	243	2,913	5,633	5,739	
Interest	*Charged at*	*7.50%*	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	0.00%	
	Total		-58	-67	-77	-87	-114	-150	-149	-135	-121	-107	-93	-78	-64	-48	-33	-14	5	55	106	0	**-1,231**
Cumulative developer profit carried forward to RV calc			**-3,127**	**-3,637**	**-4,169**	**-4,703**	**-6,201**	**-8,144**	**-8,087**	**-7,351**	**-6,600**	**-5,835**	**-5,057**	**-4,263**	**-3,455**	**-2,631**	**-1,792**	**-782**	**247**	**2,967**	**5,739**	**5,739**	**5,737**

SITE 4: Village large greenfield

Input assumptions

Scenario & option Affordable 10% = 70% social rented 30% intermediate

East Staffs Viability

Site details

Site		4. Large greenfield
Location		Village
Area	ha	5.14
	acres	12.70
No dwgs		180
Density dw/ha		35.0

		£k
Contingency		
allowance	2.50%	303
Development costs		
standard % build	16.00%	1,990
plus abnormals	0.0%	0
Total	16%	
Design fees		
on build costs	10.0%	1,244
on dev costs	8%	
Planning gain & Grant contributions		
PG £ per dwg	3,000	540
Grant £ per dwg	0	0

PG ALL

Dwellings

Dwellings		% of dwgs	% of units	ave floor space gross sq ft	ave floor space net sq ft	build cost per sq ft	build index = 1.000	sales value per sq ft
Market housing	162.0	90.00%	90.00%	870	860	77.50	77.50	194.00
						0.0%		
Affordable soc rent	12.6	7.00%	7.0%	870	860	77.50	77.50	75.00
						0.0%		
Affordable sh oship	5.4	3.00%	3.0%	870	860	77.50	77.50	125.00
Total dwgs	180.0	100.00%	100.0%					
			0.0%	0	0	0.00	0.00	0.00
			0.0%	0	0	0.00	0.00	0.00
Total units	180.0		100.0%	156,600	154,800		£12,136,500	£28,421,280

Floorspace density = 12,188 net sq ft per acre

Other costs

Planning	499.2	£ per dwelling
Survey	200	£ per dwelling
Marketing	0	£ per dwelling

Interest
% per annum 7.50%

Notes

SITE 4 LAND COST & PHASING

Land

Iterate to achieve 20.0% profit

		Affordable	No affordable	Hectare: Affordable	Hectare: No affordable
Land purchase price	£	**4,469,041**	**5,364,008**		
RV per acre	£	**351,867**	**422,332**	**£869,463**	**£1,043,581**
Dev profit	£	**4,637,672**	**5,006,770**		
Total costs	£	**23,784,958**	**25,025,780**		
profit as % of costs		**19.50%**	**20.01%**		

Programme		Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	Year 5 Q1	Q2	Q3	Q4	TOTALS
Units started	*Market housing*			3.6	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	0.0	0.0	0.0	0.0	0.0	0.0	162.0
	Affordable soc rent			0.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	12.6
	Affordable sh oship			0.1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	5.4
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	0	0	4	16	16	16	16	16	16	16	16	16	16	16	0	0	0	0	0	0	180.0
Units 'built'	*Market housing*					4	14	14	14	14	14	14	14	14	14	14	14	0	0	0	0	162
+2Q	*Affordable soc rent*					0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	13
	Affordable sh oship					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	0					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Units completed	*Market housing*						4	14	14	14	14	14	14	14	14	14	14	14	0	0	0	162
+3Q	*Affordable soc rent*						0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	13
	Affordable sh oship						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	0						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Units purchased	*Market housing*							4	14	14	14	14	14	14	14	14	14	14	14	0	0	162
+4Q	*Affordable soc rent*							0	1	1	1	1	1	1	1	1	1	1	1	0	0	13
	Affordable sh oship							0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	0							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SITE 4 CASH FLOW AFFORDABLE

		rate	Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	Year 5 Q1	Q2	Q3	Q4	TOTALS
INCOME																							
Housing sales	*Market housing*		0	0	0	0	0	0	601	2,402	2,402	2,402	2,402	2,402	2,402	2,402	2,402	2,402	2,402	2,402	0	0	27,028
	Affordable soc rent		0	0	0	0	0	0	18	72	72	72	72	72	72	72	72	72	72	72	0	0	813
	Affordable sh oship		0	0	0	0	0	0	13	52	52	52	52	52	52	52	52	52	52	52	0	0	580
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sales fees		0	0	0	0	0	0	-21	-85	-85	-85	-85	-85	-85	-85	-85	-85	-85	-85	0	0	-959
Total income			**0**	**0**	**0**	**0**	**0**	**0**	**632**	**2,526**	**2,526**	**2,526**	**2,526**	**2,526**	**2,526**	**2,526**	**2,526**	**2,526**	**2,526**	**2,526**	**0**	**0**	**28,421**
COSTS																							
Land	*Land acquisition*		4,469																				4,469
	Stamp duty		179																				179
	Purchase fees		123																				123
	Total																						**4,771**
Build costs	*Market housing*		0	0	0	0	243	971	971	971	971	971	971	971	971	971	971	971	0	0	0	0	10,923
	Affordable soc rent		0	0	0	0	19	76	76	76	76	76	76	76	76	76	76	76	0	0	0	0	850
	Affordable sh oship		0	0	0	0	8	32	32	32	32	32	32	32	32	32	32	32	0	0	0	0	364
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Build contingency	*2.5%*	0	0	0	0	7	27	27	27	27	27	27	27	27	27	27	27	0	0	0	0	303
	Total																						**12,440**
Dev costs	*Upfront*	*8.0%*	249	249	249	249																	995
	Build related	*8.0%*	0	0	22	88	88	88	88	88	88	88	88	88	88	88	0	0	0	0	0	0	995
	Abnormals	*0%*	0	0																			0
	Total																						**1,990**
Fees	*Fees on build costs*	*10.0%*	0	0	0	0	28	111	111	111	111	111	111	111	111	111	111	111	0	0	0	0	1,244
	Fees on dev costs	*8.0%*	20	20	22	27	7	7	7	7	7	7	7	7	7	7	0	0	0	0	0	0	159
	Total																						**1,403**
PG	*Planning gain*				12	48	48	48	48	48	48	48	48	48	48	48	0	0	0	0	0	0	540
	Total																						**540**
Grant	*Grant*				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																						**0**
Other	*Planning*	*£499*	30	30	30																		90
	Survey	*£200*	36																				36
	Marketing	*£0*			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																						**126**
Sales fees	*b/forward from above*		0	0	0	0	0	0	21	85	85	85	85	85	85	85	85	85	85	85	0	0	**959**
Total costs			**5,105**	**299**	**335**	**412**	**448**	**1,360**	**1,381**	**1,445**	**1,445**	**1,445**	**1,445**	**1,445**	**1,445**	**1,445**	**1,302**	**1,302**	**85**	**85**	**0**	**0**	**22,229**
Net profit/loss from quarter			**-5,105**	**-299**	**-335**	**-412**	**-448**	**-1,360**	**-750**	**1,081**	**1,081**	**1,081**	**1,081**	**1,081**	**1,081**	**1,081**	**1,225**	**1,225**	**2,441**	**2,441**	**0**	**0**	**6,192**
Profit/loss bf from last quarter			0	-5,201	-5,603	-6,048	-6,582	-7,161	-8,681	-9,607	-8,686	-7,747	-6,791	-5,816	-4,824	-3,813	-2,783	-1,587	-369	2,111	4,638	4,638	
Cumulative profit/loss			-5,105	-5,500	-5,937	-6,461	-7,029	-8,521	-9,430	-8,526	-7,604	-6,666	-5,709	-4,735	-3,743	-2,731	-1,558	-362	2,072	4,552	4,638	4,638	
Interest	*Charged at*	*7.50%*	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	0.00%	0.00%	
	Total		-96	-103	-111	-121	-132	-160	-177	-160	-143	-125	-107	-89	-70	-51	-29	-7	39	85	0	0	**-1,556**
Cumulative developer profit carried forward to RV calc			**-5,201**	**-5,603**	**-6,048**	**-6,582**	**-7,161**	**-8,681**	**-9,607**	**-8,686**	**-7,747**	**-6,791**	**-5,816**	**-4,824**	**-3,813**	**-2,783**	**-1,587**	**-369**	**2,111**	**4,638**	**4,638**	**4,638**	**4,636**

SITE 5: Large urban brownfield

Input assumptions | **Scenario & option** | Affordable 10% = 70% social rented 30% intermediate

East Staffs Viability

Site details

Site		5. Large brownfield
Location		Urban
Area	ha	3.20
	acres	7.91
No dwgs		128
Density dw/ha		40.0

		£k
Contingency		
allowance	5.00%	454
Development costs		
standard % build	13.50%	1,287
plus abnormals	5.1%	484
Total	19%	
Design fees		
on build costs	10.0%	954
on dev costs	8%	
Planning gain & Grant contributions		
PG £ per dwg	3,000	384
Grant £ per dwg	0	0

PG ALL

Dwellings

Dwellings		% of dwgs	% of units	ave floor space gross sq ft	ave floor space net sq ft	build cost per sq ft	build index = 1.000	sales value per sq ft
Market housing	115.2	90.00%	90.00%	887	875	80.00	80.00	167.00
						0.0%		
Affordable soc rent	9.0	7.00%	7.0%	887	875	80.00	80.00	75.00
						0.0%		
Affordable sh oship	3.8	3.00%	3.0%	887	875	80.00	80.00	118.00
Total dwgs	128.0	100.00%	100.0%					
			0.0%	0	0	0.00	0.00	0.00
			0.0%	0	0	0.00	0.00	0.00
Total units	128.0		100.0%	113,536	112,000		£9,082,880	£17,818,080

Floorspace density = 14,164 net sq ft per acre

Other costs

Planning	460.2	£ per dwelling
Survey	500	£ per dwelling
Marketing	0	£ per dwelling

Interest

% per annum 7.50%

Notes

SITE 5 LAND COST & PHASING

Land

		Iterate to achieve 20.0% profit		Hectare	
		Affordable	No affordable	Affordable	No affordable
Land purchase price	£	681,215	1,166,236		
RV per acre	£	86,151	147,490	£212,880	£364,449
Dev profit	£	2,907,481	3,117,848		
Total costs	£	14,911,799	15,587,352		
profit as % of costs		19.50%	20.00%		

Programme		Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
Units started	Market housing			0.0	7.2	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	0.0	0.0	0.0	0.0	115.2
	Affordable soc rent			0.0	0.6	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	9.0
	Affordable sh oship			0.0	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	3.8
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	0	0	0	8	15	15	15	15	15	15	15	15	0	0	0	0	128.0
Units 'built' +2Q	Market housing					0	7	14	14	14	14	14	14	14	14	0	0	115
	Affordable soc rent					0	1	1	1	1	1	1	1	1	1	0	0	9
	Affordable sh oship					0	0	0	0	0	0	0	0	0	0	0	0	4
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
Units completed +3Q	Market housing						0	7	14	14	14	14	14	14	14	14	0	115
	Affordable soc rent						0	1	1	1	1	1	1	1	1	1	0	9
	Affordable sh oship						0	0	0	0	0	0	0	0	0	0	0	4
	0						0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0
Units purchased +4Q	Market housing							0	7	14	14	14	14	14	14	14	14	115
	Affordable soc rent							0	1	1	1	1	1	1	1	1	1	9
	Affordable sh oship							0	0	0	0	0	0	0	0	0	0	4
	0							0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0

SITE 5 CASH FLOW AFFORDABLE

		rate	Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
INCOME																			
Housing sales	*Market housing*		0	0	0	0	0	0	0	1,052	1,973	1,973	1,973	1,973	1,973	1,973	1,973	1,973	16,834
	Affordable soc rent		0	0	0	0	0	0	0	37	69	69	69	69	69	69	69	69	588
	Affordable sh oship		0	0	0	0	0	0	0	25	46	46	46	46	46	46	46	46	396
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sales fees		0	0	0	0	0	0	0	-37	-70	-70	-70	-70	-70	-70	-70	-70	-598
Total income			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,114**	**2,088**	**2,088**	**2,088**	**2,088**	**2,088**	**2,088**	**2,088**	**2,088**	**17,818**
COSTS																			
Land	*Land acquisition*		681																681
	Stamp duty		27																27
	Purchase fees		19																19
	Total																		**727**
Build costs	*Market housing*		0	0	0	0	0	511	958	958	958	958	958	958	958	958	0	0	8,175
	Affordable soc rent		0	0	0	0	0	40	75	75	75	75	75	75	75	75	0	0	636
	Affordable sh oship		0	0	0	0	0	17	32	32	32	32	32	32	32	32	0	0	272
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Build contingency	*5.0%*	0	0	0	0	0	28	53	53	53	53	53	53	53	53	0	0	454
	Total																		**9,537**
Dev costs	*Upfront*	*6.8%*	161	161	161	161													644
	Build related	*6.8%*	0	0	0	40	75	75	75	75	75	75	75	75	0	0	0	0	644
	Abnormals	*5%*	242	242															484
	Total																		**1,771**
Fees	*Fees on build costs*	*10.0%*	0	0	0	0	0	60	112	112	112	112	112	112	112	112	0	0	954
	Fees on dev costs	*8.0%*	32	32	13	16	6	6	6	6	6	6	6	6	0	0	0	0	142
	Total																		**1,095**
PG	*Planning gain*				0	24	45	45	45	45	45	45	45	45	0	0	0	0	384
	Total																		**384**
Grant	*Grant*				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**0**
Other	*Planning*	*£460*	20	20	20														59
	Survey	*£500*	64																64
	Marketing	*£0*			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**123**
Sales fees	*b/forward from above*		0	0	0	0	0	0	0	37	70	70	70	70	70	70	70	70	**598**
Total costs			**1,246**	**455**	**193**	**241**	**126**	**782**	**1,356**	**1,393**	**1,426**	**1,426**	**1,426**	**1,426**	**1,299**	**1,299**	**70**	**70**	**14,236**
Net profit/loss from quarter			**-1,246**	**-455**	**-193**	**-241**	**-126**	**-782**	**-1,356**	**-280**	**662**	**662**	**662**	**662**	**789**	**789**	**2,018**	**2,018**	**3,582**
Profit/loss bf from last quarter			0	-1,269	-1,756	-1,986	-2,269	-2,440	-3,282	-4,725	-5,099	-4,520	-3,930	-3,329	-2,717	-1,964	-1,198	836	
Cumulative profit/loss			-1,246	-1,724	-1,949	-2,227	-2,395	-3,222	-4,638	-5,005	-4,437	-3,857	-3,268	-2,667	-1,928	-1,176	820	2,854	
Interest	*Charged at*	*7.50%*	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	
	Total		-23	-32	-37	-42	-45	-60	-87	-94	-83	-72	-61	-50	-36	-22	15	54	**-676**
Cumulative developer profit carried forward to RV calc			**-1,269**	**-1,756**	**-1,986**	**-2,269**	**-2,440**	**-3,282**	**-4,725**	**-5,099**	**-4,520**	**-3,930**	**-3,329**	**-2,717**	**-1,964**	**-1,198**	**836**	**2,907**	**2,906**

SITE 6: Urban edge brownfield

Input assumptions

Scenario & option Affordable 10% = 70% social rented 30% intermediate

East Staffs Viability

Site details

Site		6. Urban edge brownfield
Location		Urban
Area	ha	3.42
	acres	8.45
No dwgs		106
Density dw/ha		31.0

	£k
Contingency	
allowance 5.00%	475
Development costs	
standard % build 14.50%	1,446
plus abnormals 0.8%	75
Total 15%	
Design fees	
on build costs 10.0%	997
on dev costs 8%	
Planning gain & Grant contributions	
PG £ per dwg 3,000	318
Grant £ per dwg 0	0

PG ALL

Dwellings

Dwellings		% of dwgs	% of units	ave floor space gross sq ft	ave floor space net sq ft	build cost per sq ft	build index = 1.000	sales value per sq ft
Market housing	95.4	90.00%	90.00%	1,073	1,061	83.50	83.50	186.00
						0.0%		
Affordable soc rent	7.4	7.00%	7.0%	1,073	1,061	83.50	83.50	75.00
						0.0%		
Affordable sh oship	3.2	3.00%	3.0%	1,073	1,061	83.50	83.50	125.00
Total dwgs	106.0	100.00%	100.0%					
			0.0%	0	0	0.00	0.00	0.00
			0.0%	0	0	0.00	0.00	0.00
Total units	106.0		100.0%	113,738	112,466		£9,497,123	£19,839,002

Floorspace density = 13,308 net sq ft per acre

Other costs

Planning	432.3	£ per dwelling
Survey	500	£ per dwelling
Marketing	0	£ per dwelling

Interest
% per annum 7.50%

Notes

SITE 6 LAND COST & PHASING

Land

Iterate to achieve 20.0% profit

		Affordable	No affordable	Hectare: Affordable	Hectare: No affordable
Land purchase price	£	**1,928,564**	**2,539,452**		
RV per acre	£	**228,210**	**300,498**	**£563,908**	**£742,530**
Dev profit	£	**3,237,169**	**3,486,983**		
Total costs	£	**16,602,883**	**17,432,743**		
profit as % of costs		**19.50%**	**20.00%**		

Programme		Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
Units started	*Market housing*			0.9	13.5	13.5	13.5	13.5	13.5	13.5	13.5	0.0	0.0	0.0	0.0	0.0	0.0	95.4
	Affordable soc rent			0.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	7.4
	Affordable sh oship			0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	3.2
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	0	0	1	15	15	15	15	15	15	15	0	0	0	0	0	0	106.0
Units 'built'	*Market housing*					1	14	14	14	14	14	14	14	0	0	0	0	95
+2Q	*Affordable soc rent*					0	1	1	1	1	1	1	1	0	0	0	0	7
	Affordable sh oship					0	0	0	0	0	0	0	0	0	0	0	0	3
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
Units completed	*Market housing*						1	14	14	14	14	14	14	14	0	0	0	95
+3Q	*Affordable soc rent*						0	1	1	1	1	1	1	1	0	0	0	7
	Affordable sh oship						0	0	0	0	0	0	0	0	0	0	0	3
	0						0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0
Units purchased	*Market housing*							1	14	14	14	14	14	14	14	0	0	95
+4Q	*Affordable soc rent*							0	1	1	1	1	1	1	1	0	0	7
	Affordable sh oship							0	0	0	0	0	0	0	0	0	0	3
	0							0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0

SITE 6 CASH FLOW AFFORDABLE

		rate	Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
INCOME																			
Housing sales	*Market housing*		0	0	0	0	0	0	178	2,664	2,664	2,664	2,664	2,664	2,664	2,664	0	0	18,827
	Affordable soc rent		0	0	0	0	0	0	6	84	84	84	84	84	84	84	0	0	590
	Affordable sh oship		0	0	0	0	0	0	4	60	60	60	60	60	60	60	0	0	422
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sales fees		0	0	0	0	0	0	-6	-95	-95	-95	-95	-95	-95	-95	0	0	-668
Total income			**0**	**0**	**0**	**0**	**0**	**0**	**187**	**2,807**	**2,807**	**2,807**	**2,807**	**2,807**	**2,807**	**2,807**	**0**	**0**	**19,839**
COSTS																			
Land	*Land acquisition*		1,929																1,929
	Stamp duty		77																77
	Purchase fees		53																53
	Total																		**2,059**
Build costs	*Market housing*		0	0	0	0	81	1,210	1,210	1,210	1,210	1,210	1,210	1,210	0	0	0	0	8,547
	Affordable soc rent		0	0	0	0	6	94	94	94	94	94	94	94	0	0	0	0	665
	Affordable sh oship		0	0	0	0	3	40	40	40	40	40	40	40	0	0	0	0	285
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Build contingency	*5.0%*	0	0	0	0	4	67	67	67	67	67	67	67	0	0	0	0	475
	Total																		**9,972**
Dev costs	*Upfront*	*7.3%*	181	181	181	181													723
	Build related	*7.3%*	0	0	7	102	102	102	102	102	102	102	0	0	0	0	0	0	723
	Abnormals	*1%*	37	37															75
	Total																		**1,521**
Fees	*Fees on build costs*	*10.0%*	0	0	0	0	9	141	141	141	141	141	141	141	0	0	0	0	997
	Fees on dev costs	*8.0%*	17	17	15	23	8	8	8	8	8	8	0	0	0	0	0	0	122
	Total																		**1,119**
PG	*Planning gain*				3	45	45	45	45	45	45	45	0	0	0	0	0	0	318
	Total																		**318**
Grant	*Grant*				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**0**
Other	*Planning*	*£432*	15	15	15														46
	Survey	*£500*	53																53
	Marketing	*£0*			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**99**
Sales fees	*b/forward from above*		0	0	0	0	0	0	6	95	95	95	95	95	95	95	0	0	**668**
Total costs			**2,363**	**251**	**221**	**351**	**259**	**1,708**	**1,714**	**1,802**	**1,802**	**1,802**	**1,647**	**1,647**	**95**	**95**	**0**	**0**	**15,755**
Net profit/loss from quarter			**-2,363**	**-251**	**-221**	**-351**	**-259**	**-1,708**	**-1,527**	**1,005**	**1,005**	**1,005**	**1,161**	**1,161**	**2,713**	**2,713**	**0**	**0**	**4,084**
Profit/loss bf from last quarter			0	-2,407	-2,707	-2,983	-3,396	-3,724	-5,533	-7,192	-6,303	-5,397	-4,474	-3,376	-2,257	465	3,237	3,237	
Cumulative profit/loss			-2,363	-2,658	-2,928	-3,334	-3,655	-5,431	-7,060	-6,187	-5,298	-4,392	-3,314	-2,215	456	3,178	3,237	3,237	
Interest	*Charged at*	*7.50%*	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	0.00%	0.00%	
	Total		-44	-50	-55	-63	-69	-102	-132	-116	-99	-82	-62	-42	9	60	0	0	**-848**
Cumulative developer profit carried forward to RV calc			**-2,407**	**-2,707**	**-2,983**	**-3,396**	**-3,724**	**-5,533**	**-7,192**	**-6,303**	**-5,397**	**-4,474**	**-3,376**	**-2,257**	**465**	**3,237**	**3,237**	**3,237**	**3,236**

SITE 7: Large urban brownfield

Input assumptions | **Scenario & option** | Affordable 10% = 70% social rented 30% intermediate

East Staffs Viability

Site details

Site		7. Large brownfield
Location		Urban
Area	ha	2.35
	acres	5.81
No dwgs		116
Density dw/ha		49.4

	£k
Contingency	
allowance 5.00%	410
Development costs	
standard % build 13.50%	1,163
plus abnormals 3.0%	261
Total 17%	
Design fees	
on build costs 10.0%	861
on dev costs 8%	
Planning gain & Grant contributions	
PG £ per dwg 3,000	348
Grant £ per dwg 0	0

PG ALL

Dwellings

Dwellings		% of dwgs	% of units	ave floor space gross sq ft	net sq ft	build cost per sq ft	build index = 1.000	sales value per sq ft
Market housing	104.4	90.00%	90.00%	852	825	83.00	83.00	171.00
						0.0%		
Affordable soc rent	8.1	7.00%	7.0%	852	825	83.00	83.00	76.00
						0.0%		
Affordable sh oship	3.5	3.00%	3.0%	852	825	83.00	83.00	119.00
Total dwgs	116.0	100.00%	100.0%					
			0.0%	0	0	0.00	0.00	0.00
			0.0%	0	0	0.00	0.00	0.00
Total units	116.0		100.0%	98,832	95,700		£8,203,056	£15,579,003

Floorspace density = 16,481 net sq ft per acre

Other costs

Planning	446.3	£ per dwelling
Survey	500	£ per dwelling
Marketing	0	£ per dwelling

Interest

% per annum 7.50%

Notes

SITE 7 LAND COST & PHASING

Land

Iterate to achieve 20.0% profit

		Affordable	No affordable	Hectare: Affordable	Hectare: No affordable
Land purchase price	£	**500,244**	**940,956**		
RV per acre	£	**86,147**	**162,042**	**£212,870**	**£400,407**
Dev profit	£	**2,541,970**	**2,730,939**		
Total costs	£	**13,038,083**	**13,634,811**		
profit as % of costs		**19.50%**	**20.03%**		

Programme		*Year 1* Q1	Q2	Q3	Q4	*Year 2* Q1	Q2	Q3	Q4	*Year 3* Q1	Q2	Q3	Q4	*Year 4* Q1	Q2	Q3	Q4	*TOTALS*
Units started	*Market housing*			9.9	13.5	13.5	13.5	13.5	13.5	13.5	13.5	0.0	0.0	0.0	0.0	0.0	0.0	104.4
	Affordable soc rent			0.8	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	8.1
	Affordable sh oship			0.3	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	3.5
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	0	0	11	15	15	15	15	15	15	15	0	0	0	0	0	0	116.0
Units 'built'	*Market housing*					10	14	14	14	14	14	14	14	0	0	0	0	104
+2Q	*Affordable soc rent*					1	1	1	1	1	1	1	1	0	0	0	0	8
	Affordable sh oship					0	0	0	0	0	0	0	0	0	0	0	0	3
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
Units completed	*Market housing*						10	14	14	14	14	14	14	14	0	0	0	104
+3Q	*Affordable soc rent*						1	1	1	1	1	1	1	1	0	0	0	8
	Affordable sh oship						0	0	0	0	0	0	0	0	0	0	0	3
	0						0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0
Units purchased	*Market housing*							10	14	14	14	14	14	14	14	0	0	104
+4Q	*Affordable soc rent*							1	1	1	1	1	1	1	1	0	0	8
	Affordable sh oship							0	0	0	0	0	0	0	0	0	0	3
	0							0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0

SITE 7 CASH FLOW AFFORDABLE

		rate	Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
INCOME																			
Housing sales	*Market housing*		0	0	0	0	0	0	1,397	1,905	1,905	1,905	1,905	1,905	1,905	1,905	0	0	14,728
	Affordable soc rent		0	0	0	0	0	0	48	66	66	66	66	66	66	66	0	0	509
	Affordable sh oship		0	0	0	0	0	0	32	44	44	44	44	44	44	44	0	0	342
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sales fees		0	0	0	0	0	0	-50	-68	-68	-68	-68	-68	-68	-68	0	0	-523
Total income			**0**	**0**	**0**	**0**	**0**	**0**	**1,477**	**2,015**	**2,015**	**2,015**	**2,015**	**2,015**	**2,015**	**2,015**	**0**	**0**	**15,579**
COSTS																			
Land	*Land acquisition*		500																500
	Stamp duty		20																20
	Purchase fees		14																14
	Total																		**534**
Build costs	*Market housing*		0	0	0	0	700	955	955	955	955	955	955	955	0	0	0	0	7,383
	Affordable soc rent		0	0	0	0	54	74	74	74	74	74	74	74	0	0	0	0	574
	Affordable sh oship		0	0	0	0	23	32	32	32	32	32	32	32	0	0	0	0	246
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Build contingency	*5.0%*	0	0	0	0	39	53	53	53	53	53	53	53	0	0	0	0	410
	Total																		**8,613**
Dev costs	*Upfront*	*6.8%*	145	145	145	145													581
	Build related	*6.8%*	0	0	55	75	75	75	75	75	75	75	0	0	0	0	0	0	581
	Abnormals	*3%*	130	130															261
	Total																		**1,424**
Fees	*Fees on build costs*	*10.0%*	0	0	0	0	82	111	111	111	111	111	111	111	0	0	0	0	861
	Fees on dev costs	*8.0%*	22	22	16	18	6	6	6	6	6	6	0	0	0	0	0	0	114
	Total																		**975**
PG	*Planning gain*				33	45	45	45	45	45	45	45	0	0	0	0	0	0	348
	Total																		**348**
Grant	*Grant*				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**0**
Other	*Planning*	*£446*	17	17	17														52
	Survey	*£500*	58																58
	Marketing	*£0*			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**110**
Sales fees	*b/forward from above*		0	0	0	0	0	0	50	68	68	68	68	68	68	68	0	0	**523**
Total costs			**907**	**315**	**267**	**283**	**1,025**	**1,351**	**1,401**	**1,419**	**1,419**	**1,419**	**1,293**	**1,293**	**68**	**68**	**0**	**0**	**12,527**
Net profit/loss from quarter			**-907**	**-315**	**-267**	**-283**	**-1,025**	**-1,351**	**76**	**596**	**596**	**596**	**722**	**722**	**1,947**	**1,947**	**0**	**0**	**3,052**
Profit/loss bf from last quarter			0	-924	-1,262	-1,558	-1,875	-2,954	-4,386	-4,391	-3,866	-3,332	-2,788	-2,105	-1,409	548	2,542	2,542	
Cumulative profit/loss			-907	-1,239	-1,529	-1,841	-2,900	-4,306	-4,310	-3,795	-3,271	-2,736	-2,066	-1,383	538	2,495	2,542	2,542	
Interest	*Charged at*	*7.50%*	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	0.00%	0.00%	
	Total		-17	-23	-29	-35	-54	-81	-81	-71	-61	-51	-39	-26	10	47	0	0	**-511**
Cumulative developer profit carried forward to RV calc			**-924**	**-1,262**	**-1,558**	**-1,875**	**-2,954**	**-4,386**	**-4,391**	**-3,866**	**-3,332**	**-2,788**	**-2,105**	**-1,409**	**548**	**2,542**	**2,542**	**2,542**	**2,541**

SITE 8: Inner urban brownfield

Input assumptions | **Scenario & option** | Affordable 10% = 70% social rented 30% intermediate

East Staffs Viability

Site details

Site		8. Inner brownfield
Location		Urban
Area	ha	1.12
	acres	2.77
No dwgs		59
Density dw/ha		52.7

	£k	
Contingency		
allowance	5.00%	191
Development costs		
standard % build	13.50%	541
plus abnormals	6.9%	277
Total	20%	
Design fees		
on build costs	10.0%	401
on dev costs	8%	
Planning gain & Grant contributions		
PG £ per dwg	3,000	177
Grant £ per dwg	0	0

PG ALL

Dwellings

Dwellings		% of dwgs	% of units	ave floor space gross sq ft	ave floor space net sq ft	build cost per sq ft	build index = 1.000	sales value per sq ft
Market housing	53.1	90.00%	90.00%	779	753	83.00	83.00	173.00
						0.0%		
Affordable soc rent	4.1	7.00%	7.0%	779	753	83.00	83.00	76.00
						0.0%		
Affordable sh oship	1.8	3.00%	3.0%	779	753	83.00	83.00	119.00
Total dwgs	59.0	100.00%	100.0%					
			0.0%	0	0	0.00	0.00	0.00
			0.0%	0	0	0.00	0.00	0.00
Total units	59.0		100.0%	45,961	44,427		£3,814,763	£7,312,240

Floorspace density = 16,053 net sq ft per acre

Other costs

Planning	302.6	£ per dwelling
Survey	500	£ per dwelling
Marketing	0	£ per dwelling

Interest
% per annum 7.50%

Notes

SITE 8 LAND COST & PHASING

Land

Iterate to achieve 20.0% profit

		Affordable	No affordable	Hectare: Affordable	Hectare: No affordable
Land purchase price	£	**95,941**	**309,761**		
RV per acre	£	**34,667**	**111,927**	**£85,662**	**£276,572**
Dev profit	£	**1,193,203**	**1,281,598**		
Total costs	£	**6,120,087**	**6,405,323**		
profit as % of costs		**19.50%**	**20.01%**		

Programme		Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
Units started	*Market housing*			0.0	4.5	8.1	8.1	8.1	8.1	8.1	8.1	0.0	0.0	0.0	0.0	0.0	0.0	53.1
	Affordable soc rent			0.0	0.4	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	4.1
	Affordable sh oship			0.0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1.8
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	0	0		5	9	9	9	9	9	9	0	0	0	0	0	0	59.0
Units 'built'	*Market housing*					0	5	8	8	8	8	8	8	0	0	0	0	53
+2Q	*Affordable soc rent*					0	0	1	1	1	1	1	1	0	0	0	0	4
	Affordable sh oship					0	0	0	0	0	0	0	0	0	0	0	0	2
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
Units completed	*Market housing*						0	5	8	8	8	8	8	8	0	0	0	53
+3Q	*Affordable soc rent*						0	0	1	1	1	1	1	1	0	0	0	4
	Affordable sh oship						0	0	0	0	0	0	0	0	0	0	0	2
	0						0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0
Units purchased	*Market housing*							0	5	8	8	8	8	8	8	0	0	53
+4Q	*Affordable soc rent*							0	0	1	1	1	1	1	1	0	0	4
	Affordable sh oship							0	0	0	0	0	0	0	0	0	0	2
	0							0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0

SITE 8 CASH FLOW AFFORDABLE

		rate	Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
INCOME																			
Housing sales	*Market housing*		0	0	0	0	0	0	0	586	1,055	1,055	1,055	1,055	1,055	1,055	0	0	6,917
	Affordable soc rent		0	0	0	0	0	0	0	20	36	36	36	36	36	36	0	0	236
	Affordable sh oship		0	0	0	0	0	0	0	13	24	24	24	24	24	24	0	0	159
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sales fees		0	0	0	0	0	0	0	-21	-37	-37	-37	-37	-37	-37	0	0	-246
Total income			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**620**	**1,115**	**1,115**	**1,115**	**1,115**	**1,115**	**1,115**	**0**	**0**	**7,312**
COSTS																			
Land	*Land acquisition*		96																96
	Stamp duty		1																1
	Purchase fees		3																3
	Total																		**100**
Build costs	*Market housing*		0	0	0	0	0	291	524	524	524	524	524	524	0	0	0	0	3,433
	Affordable soc rent		0	0	0	0	0	23	41	41	41	41	41	41	0	0	0	0	267
	Affordable sh oship		0	0	0	0	0	10	17	17	17	17	17	17	0	0	0	0	114
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Build contingency	*5.0%*	0	0	0	0	0	16	29	29	29	29	29	29	0	0	0	0	191
	Total																		**4,006**
Dev costs	*Upfront*	*6.8%*	68	68	68	68													270
	Build related	*6.8%*	0	0	0	23	41	41	41	41	41	41	0	0	0	0	0	0	270
	Abnormals	*7%*	139	139															277
	Total																		**818**
Fees	*Fees on build costs*	*10.0%*	0	0	0	0	0	34	61	61	61	61	61	61	0	0	0	0	401
	Fees on dev costs	*8.0%*	16	16	5	7	3	3	3	3	3	3	0	0	0	0	0	0	65
	Total																		**466**
PG	*Planning gain*				0	15	27	27	27	27	27	27	0	0	0	0	0	0	177
	Total																		**177**
Grant	*Grant*				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**0**
Other	*Planning*	*£303*	6	6	6														18
	Survey	*£500*	30																30
	Marketing	*£0*			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**47**
Sales fees	*b/forward from above*		0	0	0	0	0	0	0	21	37	37	37	37	37	37	0	0	**246**
Total costs			**358**	**229**	**79**	**113**	**72**	**445**	**744**	**764**	**781**	**781**	**710**	**710**	**37**	**37**	**0**	**0**	**5,859**
Net profit/loss from quarter			**-358**	**-229**	**-79**	**-113**	**-72**	**-445**	**-744**	**-145**	**334**	**334**	**406**	**406**	**1,078**	**1,078**	**0**	**0**	**1,453**
Profit/loss bf from last quarter			0	-364	-604	-696	-823	-912	-1,382	-2,165	-2,353	-2,057	-1,755	-1,374	-987	93	1,193	1,193	
Cumulative profit/loss			-358	-593	-683	-808	-895	-1,357	-2,126	-2,310	-2,019	-1,723	-1,349	-968	91	1,171	1,193	1,193	
Interest	*Charged at*	*7.50%*	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	0.00%	0.00%	
	Total		-7	-11	-13	-15	-17	-25	-40	-43	-38	-32	-25	-18	2	22	0	0	**-261**
Cumulative developer profit carried forward to RV calc			**-364**	**-604**	**-696**	**-823**	**-912**	**-1,382**	**-2,165**	**-2,353**	**-2,057**	**-1,755**	**-1,374**	**-987**	**93**	**1,193**	**1,193**	**1,193**	**1,192**

FORDHAM RESEARCH

SITE 9: Small urban brownfield

Input assumptions

Scenario & option Affordable 10% = 70% social rented 30% intermediate

East Staffs Viability

Site details

Site		9. Small brownfield
Location		Urban
Area	ha	1.36
	acres	3.36
No dwgs		70
Density dw/ha		51.5

		£k
Contingency		
allowance	5.00%	206
Development costs		
standard % build	13.50%	584
plus abnormals	3.5%	150
Total	17%	
Design fees		
on build costs	10.0%	432
on dev costs	8%	
Planning gain & Grant contributions		
PG £ per dwg	3,000	210
Grant £ per dwg	0	0
PG ALL		

Dwellings

Dwellings		% of dwgs	% of units	ave floor space gross sq ft	ave floor space net sq ft	build cost per sq ft	build index = 1.000	sales value per sq ft
Market housing	63.0	90.00%	90.00%	740	715	79.50	79.50	174.00
						0.0%		
Affordable soc rent	5.6	8.00%	8.0%	740	715	79.50	79.50	76.00
						0.0%		
Affordable sh oship	1.4	2.00%	2.0%	740	715	79.50	79.50	119.00
Total dwgs	70.0	100.00%	100.0%					
			0.0%	0	0	0.00	0.00	0.00
			0.0%	0	0	0.00	0.00	0.00
Total units	70.0		100.0%	51,800	50,050		£4,118,100	£8,261,253

Floorspace density = 14,893 net sq ft per acre

Other costs

Planning	348.6	£ per dwelling
Survey	500	£ per dwelling
Marketing	0	£ per dwelling

Interest
% per annum 7.50%

Notes

SITE 9 LAND COST & PHASING

Land

Iterate to achieve 20.0% profit

		Affordable	No affordable	Hectare: Affordable	Hectare: No affordable
Land purchase price	£	**467,860**	**720,123**		
RV per acre	£	**139,221**	**214,287**	**£344,015**	**£529,503**
Dev profit	£	**1,348,079**	**1,452,054**		
Total costs	£	**6,914,299**	**7,257,771**		
profit as % of costs		**19.50%**	**20.01%**		

Programme		Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
Units started	*Market housing*			0.0	6.3	8.1	8.1	8.1	8.1	8.1	8.1	8.1	0.0	0.0	0.0	0.0	0.0	63.0
	Affordable soc rent			0.0	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	5.6
	Affordable sh oship			0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	1.4
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	0	0		7	9	9	9	9	9	9	9	0	0	0	0	0	70.0
Units 'built'	*Market housing*					0	6	8	8	8	8	8	8	8	0	0	0	63
+2Q	*Affordable soc rent*					0	1	1	1	1	1	1	1	1	0	0	0	6
	Affordable sh oship					0	0	0	0	0	0	0	0	0	0	0	0	1
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
Units completed	*Market housing*						0	6	8	8	8	8	8	8	8	0	0	63
+3Q	*Affordable soc rent*						0	1	1	1	1	1	1	1	1	0	0	6
	Affordable sh oship						0	0	0	0	0	0	0	0	0	0	0	1
	0						0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0
Units purchased	*Market housing*							0	6	8	8	8	8	8	8	8	0	63
+4Q	*Affordable soc rent*							0	1	1	1	1	1	1	1	1	0	6
	Affordable sh oship							0	0	0	0	0	0	0	0	0	0	1
	0							0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0

SITE 9 CASH FLOW AFFORDABLE

		rate	Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
INCOME																			
Housing sales	*Market housing*		0	0	0	0	0	0	0	784	1,008	1,008	1,008	1,008	1,008	1,008	1,008	0	7,838
	Affordable soc rent		0	0	0	0	0	0	0	30	39	39	39	39	39	39	39	0	304
	Affordable sh oship		0	0	0	0	0	0	0	12	15	15	15	15	15	15	15	0	119
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sales fees		0	0	0	0	0	0	0	-28	-36	-36	-36	-36	-36	-36	-36	0	-278
Total income			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**826**	**1,062**	**1,062**	**1,062**	**1,062**	**1,062**	**1,062**	**1,062**	**0**	**8,261**
COSTS																			
Land	*Land acquisition*		468																468
	Stamp duty		14																14
	Purchase fees		13																13
	Total																		**495**
Build costs	*Market housing*		0	0	0	0	0	371	477	477	477	477	477	477	477	0	0	0	3,706
	Affordable soc rent		0	0	0	0	0	33	42	42	42	42	42	42	42	0	0	0	329
	Affordable sh oship		0	0	0	0	0	8	11	11	11	11	11	11	11	0	0	0	82
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Build contingency	*5.0%*	0	0	0	0	0	21	26	26	26	26	26	26	26	0	0	0	206
	Total																		**4,324**
Dev costs	*Upfront*	*6.8%*	73	73	73	73													292
	Build related	*6.8%*	0	0	0	29	38	38	38	38	38	38	38	0	0	0	0	0	292
	Abnormals	*3%*	75	75															150
	Total																		**733**
Fees	*Fees on build costs*	*10.0%*	0	0	0	0	0	43	56	56	56	56	56	56	56	0	0	0	432
	Fees on dev costs	*8.0%*	12	12	6	8	3	3	3	3	3	3	3	0	0	0	0	0	59
	Total																		**491**
PG	*Planning gain*				0	21	27	27	27	27	27	27	27	0	0	0	0	0	210
	Total																		**210**
Grant	*Grant*				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**0**
Other	*Planning*	*£349*	8	8	8														24
	Survey	*£500*	35																35
	Marketing	*£0*			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**59**
Sales fees	*b/forward from above*		0	0	0	0	0	0	0	28	36	36	36	36	36	36	36	0	**278**
Total costs			**697**	**168**	**87**	**131**	**68**	**543**	**679**	**707**	**715**	**715**	**715**	**647**	**647**	**36**	**36**	**0**	**6,590**
Net profit/loss from quarter			**-697**	**-168**	**-87**	**-131**	**-68**	**-543**	**-679**	**119**	**347**	**347**	**347**	**415**	**415**	**1,026**	**1,026**	**0**	**1,671**
Profit/loss bf from last quarter			0	-710	-895	-1,000	-1,152	-1,243	-1,819	-2,545	-2,471	-2,164	-1,850	-1,531	-1,137	-735	297	1,348	
Cumulative profit/loss			-697	-878	-982	-1,131	-1,220	-1,786	-2,498	-2,426	-2,124	-1,816	-1,503	-1,116	-722	291	1,323	1,348	
Interest	*Charged at*	*7.50%*	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	0.00%	
	Total		-13	-16	-18	-21	-23	-33	-47	-45	-40	-34	-28	-21	-14	5	25	0	**-324**
Cumulative developer profit carried forward to RV calc			**-710**	**-895**	**-1,000**	**-1,152**	**-1,243**	**-1,819**	**-2,545**	**-2,471**	**-2,164**	**-1,850**	**-1,531**	**-1,137**	**-735**	**297**	**1,348**	**1,348**	**1,347**

SITE 10: Small urban brownfield

Input assumptions | **Scenario & option** | Affordable 10% = 70% social rented 30% intermediate

East Staffs Viability

Site details

Site		10. Small brownfield
Location		Urban
Area	ha	1.10
	acres	2.72
No dwgs		30
Density dw/ha		27.3

	£k
Contingency	
allowance 5.00%	139
Development costs	
standard % build 14.50%	423
plus abnormals 0.9%	25
Total 15%	
Design fees	
on build costs 10.0%	292
on dev costs 8%	
Planning gain & Grant contributions	
PG £ per dwg 3,000	90
Grant £ per dwg 0	0

PG ALL

Dwellings

Dwellings		% of dwgs	% of units	ave floor space gross sq ft	ave floor space net sq ft	build cost per sq ft	build index = 1.000	sales value per sq ft
Market housing	27.0	90.00%	90.00%	1,157	1,124	80.00	80.00	170.00
						0.0%		
Affordable soc rent	2.1	7.00%	7.0%	1,157	1,124	80.00	80.00	76.00
						0.0%		
Affordable sh oship	0.9	3.00%	3.0%	1,157	1,124	80.00	80.00	118.00
Total dwgs	30.0	100.00%	100.0%					
			0.0%	0	0	0.00	0.00	0.00
			0.0%	0	0	0.00	0.00	0.00
Total units	30.0		100.0%	34,710	33,720		£2,776,800	£5,457,919

Floorspace density = 12,406 net sq ft per acre

Other costs

Planning	515.0	£ per dwelling
Survey	500	£ per dwelling
Marketing	0	£ per dwelling

Interest
% per annum 7.50%

Notes

SITE 10 LAND COST & PHASING

Land

Iterate to achieve 20.0% profit

		Affordable	No affordable	Hectare Affordable	Hectare No affordable
Land purchase price	£	**358,406**	**516,897**		
RV per acre	£	**131,859**	**190,169**	**£325,824**	**£469,906**
Dev profit	£	**890,747**	**955,804**		
Total costs	£	**4,568,072**	**4,777,496**		
profit as % of costs		**19.50%**	**20.01%**		

Programme		Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
Units started	*Market housing*			4.5	4.5	4.5	4.5	4.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0
	Affordable soc rent			0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
	Affordable sh oship			0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	0	0	5	5	5	5	5	5	0	0	0	0	0	0	0	0	30.0
Units 'built' +2Q	*Market housing*					5	5	5	5	5	5	0	0	0	0	0	0	27
	Affordable soc rent					0	0	0	0	0	0	0	0	0	0	0	0	2
	Affordable sh oship					0	0	0	0	0	0	0	0	0	0	0	0	1
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
Units completed +3Q	*Market housing*						5	5	5	5	5	5	0	0	0	0	0	27
	Affordable soc rent						0	0	0	0	0	0	0	0	0	0	0	2
	Affordable sh oship						0	0	0	0	0	0	0	0	0	0	0	1
	0						0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0
Units purchased +4Q	*Market housing*							5	5	5	5	5	5	0	0	0	0	27
	Affordable soc rent							0	0	0	0	0	0	0	0	0	0	2
	Affordable sh oship							0	0	0	0	0	0	0	0	0	0	1
	0							0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0

SITE 10 CASH FLOW AFFORDABLE

		rate	Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
INCOME																			
Housing sales	*Market housing*		0	0	0	0	0	0	860	860	860	860	860	860	0	0	0	0	5,159
	Affordable soc rent		0	0	0	0	0	0	30	30	30	30	30	30	0	0	0	0	179
	Affordable sh oship		0	0	0	0	0	0	20	20	20	20	20	20	0	0	0	0	119
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sales fees		0	0	0	0	0	0	-31	-31	-31	-31	-31	-31	0	0	0	0	-183
Total income			**0**	**0**	**0**	**0**	**0**	**0**	**910**	**910**	**910**	**910**	**910**	**910**	**0**	**0**	**0**	**0**	**5,458**
COSTS																			
Land	*Land acquisition*		358																358
	Stamp duty		11																11
	Purchase fees		10																10
	Total																		**379**
Build costs	*Market housing*		0	0	0	0	417	417	417	417	417	417	0	0	0	0	0	0	2,499
	Affordable soc rent		0	0	0	0	32	32	32	32	32	32	0	0	0	0	0	0	194
	Affordable sh oship		0	0	0	0	14	14	14	14	14	14	0	0	0	0	0	0	83
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Build contingency	*5.0%*	0	0	0	0	23	23	23	23	23	23	0	0	0	0	0	0	139
	Total																		**2,916**
Dev costs	*Upfront*	*7.3%*	53	53	53	53													211
	Build related	*7.3%*	0	0	35	35	35	35	35	35	0	0	0	0	0	0	0	0	211
	Abnormals	*1%*	12	12															25
	Total																		**448**
Fees	*Fees on build costs*	*10.0%*	0	0	0	0	49	49	49	49	49	49	0	0	0	0	0	0	292
	Fees on dev costs	*8.0%*	5	5	7	7	3	3	3	3	0	0	0	0	0	0	0	0	36
	Total																		**327**
PG	*Planning gain*				15	15	15	15	15	15	0	0	0	0	0	0	0	0	90
	Total																		**90**
Grant	*Grant*				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**0**
Other	*Planning*	*£515*	5	5	5														15
	Survey	*£500*	15																15
	Marketing	*£0*			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**30**
Sales fees	*b/forward from above*		0	0	0	0	0	0	31	31	31	31	31	31	0	0	0	0	**183**
Total costs			**470**	**76**	**115**	**110**	**588**	**588**	**618**	**618**	**565**	**565**	**31**	**31**	**0**	**0**	**0**	**0**	**4,373**
Net profit/loss from quarter			**-470**	**-76**	**-115**	**-110**	**-588**	**-588**	**292**	**292**	**345**	**345**	**879**	**879**	**0**	**0**	**0**	**0**	**1,085**
Profit/loss bf from last quarter			0	-478	-564	-692	-817	-1,431	-2,057	-1,798	-1,535	-1,212	-884	-5	891	891	891	891	
Cumulative profit/loss			-470	-554	-680	-802	-1,405	-2,019	-1,765	-1,506	-1,190	-868	-5	874	891	891	891	891	
Interest	*Charged at*	*7.50%*	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	0.00%	0.00%	0.00%	0.00%	
	Total		-9	-10	-13	-15	-26	-38	-33	-28	-22	-16	0	16	0	0	0	0	**-195**
Cumulative developer profit carried forward to RV calc			**-478**	**-564**	**-692**	**-817**	**-1,431**	**-2,057**	**-1,798**	**-1,535**	**-1,212**	**-884**	**-5**	**891**	**891**	**891**	**891**	**891**	**890**

SITE 11: Urban edge greenfield

Input assumptions

Scenario & option Affordable 10% = 70% social rented 30% intermediate

East Staffs Viability

Site details

Site		11. Urban edge greenfield
Location		Urban
Area	ha	0.80
	acres	1.98
No dwgs		20
Density dw/ha		25.0

		£k
Contingency		
allowance	2.50%	52
Development costs		
standard % build	14.50%	310
plus abnormals	0.0%	0
Total	15%	
Design fees		
on build costs	10.0%	214
on dev costs	8%	
Planning gain & Grant contributions		
PG £ per dwg	3,000	60
Grant £ per dwg	0	0

PG ALL

Dwellings

Dwellings		% of dwgs	% of units	ave floor space gross sq ft	ave floor space net sq ft	build cost per sq ft	build index = 1.000	sales value per sq ft
Market housing	18.0	90.00%	90.00%	1,339	1,339	78.00	78.00	180.00
						0.0%		
Affordable soc rent	1.4	7.00%	7.0%	1,339	1,339	78.00	78.00	75.00
						0.0%		
Affordable sh oship	0.6	3.00%	3.0%	1,339	1,339	78.00	78.00	125.00
Total dwgs	20.0	100.00%	100.0%					
			0.0%	0	0	0.00	0.00	0.00
			0.0%	0	0	0.00	0.00	0.00
Total units	20.0		100.0%	26,780	26,780		£2,088,840	£4,579,380

Floorspace density = 13,547 net sq ft per acre

Other costs

Planning	515.0	£ per dwelling
Survey	200	£ per dwelling
Marketing	0	£ per dwelling

Interest
% per annum 7.50%

Notes

SITE 11 LAND COST & PHASING

Land

Iterate to achieve 20.0% profit

		Affordable	No affordable	Hectare: Affordable	Hectare: No affordable
Land purchase price	£	**666,001**	**805,823**		
RV per acre	£	**336,909**	**407,640**	**£832,501**	**£1,007,279**
Dev profit	£	**747,335**	**803,648**		
Total costs	£	**3,832,870**	**4,017,577**		
profit as % of costs		**19.50%**	**20.00%**		

Programme		Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
Units started	*Market housing*			3.6	3.6	3.6	3.6	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0
	Affordable soc rent			0.3	0.3	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
	Affordable sh oship			0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	0	0	4	4	4	4	4	0	0	0	0	0	0	0	0	0	20.0
Units 'built' +2Q	*Market housing*					4	4	4	4	4	0	0	0	0	0	0	0	18
	Affordable soc rent					0	0	0	0	0	0	0	0	0	0	0	0	1
	Affordable sh oship					0	0	0	0	0	0	0	0	0	0	0	0	1
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
Units completed +3Q	*Market housing*						4	4	4	4	4	0	0	0	0	0	0	18
	Affordable soc rent						0	0	0	0	0	0	0	0	0	0	0	1
	Affordable sh oship						0	0	0	0	0	0	0	0	0	0	0	1
	0						0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0
Units purchased +4Q	*Market housing*							4	4	4	4	4	0	0	0	0	0	18
	Affordable soc rent							0	0	0	0	0	0	0	0	0	0	1
	Affordable sh oship							0	0	0	0	0	0	0	0	0	0	1
	0							0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0

SITE 11 CASH FLOW AFFORDABLE

		rate	Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
INCOME																			
Housing sales	*Market housing*		0	0	0	0	0	0	868	868	868	868	868	0	0	0	0	0	4,338
	Affordable soc rent		0	0	0	0	0	0	28	28	28	28	28	0	0	0	0	0	141
	Affordable sh oship		0	0	0	0	0	0	20	20	20	20	20	0	0	0	0	0	100
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sales fees		0	0	0	0	0	0	-31	-31	-31	-31	-31	0	0	0	0	0	-154
Total income			**0**	**0**	**0**	**0**	**0**	**0**	**916**	**916**	**916**	**916**	**916**	**0**	**0**	**0**	**0**	**0**	**4,579**
COSTS																			
Land	*Land acquisition*		666																666
	Stamp duty		27																27
	Purchase fees		18																18
	Total																		**711**
Build costs	*Market housing*		0	0	0	0	376	376	376	376	376	0	0	0	0	0	0	0	1,880
	Affordable soc rent		0	0	0	0	29	29	29	29	29	0	0	0	0	0	0	0	146
	Affordable sh oship		0	0	0	0	13	13	13	13	13	0	0	0	0	0	0	0	63
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Build contingency	*2.5%*	0	0	0	0	10	10	10	10	10	0	0	0	0	0	0	0	52
	Total																		**2,141**
Dev costs	*Upfront*	*7.3%*	39	39	39	39													155
	Build related	*7.3%*	0	0	31	31	31	31	31	0	0	0	0	0	0	0	0	0	155
	Abnormals	*0%*	0	0															0
	Total																		**310**
Fees	*Fees on build costs*	*10.0%*	0	0	0	0	43	43	43	43	43	0	0	0	0	0	0	0	214
	Fees on dev costs	*8.0%*	3	3	6	6	2	2	2	0	0	0	0	0	0	0	0	0	25
	Total																		**239**
PG	*Planning gain*				12	12	12	12	12	0	0	0	0	0	0	0	0	0	60
	Total																		**60**
Grant	*Grant*				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**0**
Other	*Planning*	*£515*	3	3	3														10
	Survey	*£200*	4																4
	Marketing	*£0*			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**14**
Sales fees	*b/forward from above*		0	0	0	0	0	0	31	31	31	31	31	0	0	0	0	0	**154**
Total costs			**760**	**45**	**91**	**87**	**517**	**517**	**547**	**502**	**502**	**31**	**31**	**0**	**0**	**0**	**0**	**0**	**3,630**
Net profit/loss from quarter			**-760**	**-45**	**-91**	**-87**	**-517**	**-517**	**369**	**414**	**414**	**885**	**885**	**0**	**0**	**0**	**0**	**0**	**950**
Profit/loss bf from last quarter			0	-774	-835	-943	-1,050	-1,596	-2,152	-1,817	-1,429	-1,034	-152	747	747	747	747	747	
Cumulative profit/loss			-760	-820	-926	-1,031	-1,567	-2,112	-1,783	-1,403	-1,015	-149	734	747	747	747	747	747	
Interest	*Charged at*	*7.50%*	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	0.00%	0.00%	0.00%	0.00%	0.00%	
	Total		-14	-15	-17	-19	-29	-40	-33	-26	-19	-3	14	0	0	0	0	0	**-203**
Cumulative developer profit carried forward to RV calc			**-774**	**-835**	**-943**	**-1,050**	**-1,596**	**-2,152**	**-1,817**	**-1,429**	**-1,034**	**-152**	**747**	**747**	**747**	**747**	**747**	**747**	**747**

SITE 12:Small urban brownfield

Input assumptions | **Scenario & option** | Affordable 10% = 70% social rented 30% intermediate

East Staffs Viability

Site details

Site		12. Small brownfield
Location		Urban
Area	ha	0.50
	acres	1.24
No dwgs		20
Density dw/ha		40.0

	£k
Contingency	
allowance 5.00%	86
Development costs	
standard % build 14.50%	262
plus abnormals 4.2%	75
Total 19%	
Design fees	
on build costs 10.0%	180
on dev costs 8%	
Planning gain & Grant contributions	
PG £ per dwg 3,000	60
Grant £ per dwg 0	0

PG ALL

Dwellings

Dwellings		% of dwgs	% of units	ave floor space gross sq ft	ave floor space net sq ft	build cost per sq ft	build index = 1.000	sales value per sq ft
Market housing	18.0	90.00%	90.00%	1,081	1,081	79.50	79.50	166.00
						0.0%		
Affordable soc rent	1.4	7.00%	7.0%	1,081	1,081	79.50	79.50	75.00
						0.0%		
Affordable sh oship	0.6	3.00%	3.0%	1,081	1,081	79.50	79.50	118.00
Total dwgs	20.0	100.00%	100.0%					
			0.0%	0	0	0.00	0.00	0.00
			0.0%	0	0	0.00	0.00	0.00
Total units	20.0		100.0%	21,620	21,620		£1,718,790	£3,420,068

Floorspace density = 17,499 net sq ft per acre

Other costs

Planning	515.0	£ per dwelling
Survey	500	£ per dwelling
Marketing	0	£ per dwelling

Interest
% per annum 7.50%

Notes

SITE 12 LAND COST & PHASING

Land

Iterate to achieve 20.0% profit

		Affordable	No affordable	Hectare: Affordable	Hectare: No affordable
Land purchase price	£	**179,764**	**277,500**		
RV per acre	£	**145,499**	**224,605**	**£359,528**	**£555,000**
Dev profit	£	**558,263**	**598,660**		
Total costs	£	**2,862,705**	**2,991,160**		
profit as % of costs		**19.50%**	**20.01%**		

Programme		Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
Units started	*Market housing*			0.0	3.6	3.6	3.6	3.6	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0
	Affordable soc rent			0.0	0.3	0.3	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
	Affordable sh oship			0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	0	0	0	4	4	4	4	4	0	0	0	0	0	0	0	0	20.0
Units 'built'	*Market housing*					0	4	4	4	4	4	0	0	0	0	0	0	18
+2Q	*Affordable soc rent*					0	0	0	0	0	0	0	0	0	0	0	0	1
	Affordable sh oship					0	0	0	0	0	0	0	0	0	0	0	0	1
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
Units completed	*Market housing*						0	4	4	4	4	4	0	0	0	0	0	18
+3Q	*Affordable soc rent*						0	0	0	0	0	0	0	0	0	0	0	1
	Affordable sh oship						0	0	0	0	0	0	0	0	0	0	0	1
	0						0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0
Units purchased	*Market housing*							0	4	4	4	4	4	0	0	0	0	18
+4Q	*Affordable soc rent*							0	0	0	0	0	0	0	0	0	0	1
	Affordable sh oship							0	0	0	0	0	0	0	0	0	0	1
	0							0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0

SITE 12 CASH FLOW AFFORDABLE

		rate	Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
INCOME																			
Housing sales	*Market housing*		0	0	0	0	0	0	0	646	646	646	646	646	0	0	0	0	3,230
	Affordable soc rent		0	0	0	0	0	0	0	23	23	23	23	23	0	0	0	0	114
	Affordable sh oship		0	0	0	0	0	0	0	15	15	15	15	15	0	0	0	0	77
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sales fees		0	0	0	0	0	0	0	-23	-23	-23	-23	-23	0	0	0	0	-115
Total income			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**684**	**684**	**684**	**684**	**684**	**0**	**0**	**0**	**0**	**3,420**
COSTS																			
Land	*Land acquisition*		180																180
	Stamp duty		2																2
	Purchase fees		5																5
	Total																		**187**
Build costs	*Market housing*		0	0	0	0	0	309	309	309	309	309	0	0	0	0	0	0	1,547
	Affordable soc rent		0	0	0	0	0	24	24	24	24	24	0	0	0	0	0	0	120
	Affordable sh oship		0	0	0	0	0	10	10	10	10	10	0	0	0	0	0	0	52
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Build contingency	*5.0%*	0	0	0	0	0	17	17	17	17	17	0	0	0	0	0	0	86
	Total																		**1,805**
Dev costs	*Upfront*	*7.3%*	33	33	33	33													131
	Build related	*7.3%*	0	0	0	26	26	26	26	26	0	0	0	0	0	0	0	0	131
	Abnormals	*4%*	37	37															75
	Total																		**337**
Fees	*Fees on build costs*	*10.0%*	0	0	0	0	0	36	36	36	36	36	0	0	0	0	0	0	180
	Fees on dev costs	*8.0%*	6	6	3	5	2	2	2	2	0	0	0	0	0	0	0	0	27
	Total																		**207**
PG	*Planning gain*				0	12	12	12	12	12	0	0	0	0	0	0	0	0	60
	Total																		**60**
Grant	*Grant*				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**0**
Other	*Planning*	*£515*	3	3	3														10
	Survey	*£500*	10																10
	Marketing	*£0*			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**20**
Sales fees	*b/forward from above*		0	0	0	0	0	0	0	23	23	23	23	23	0	0	0	0	**115**
Total costs			**276**	**79**	**39**	**76**	**40**	**437**	**437**	**460**	**420**	**420**	**23**	**23**	**0**	**0**	**0**	**0**	**2,730**
Net profit/loss from quarter			**-276**	**-79**	**-39**	**-76**	**-40**	**-437**	**-437**	**224**	**264**	**264**	**661**	**661**	**0**	**0**	**0**	**0**	**690**
Profit/loss bf from last quarter			0	-281	-367	-413	-498	-548	-1,004	-1,468	-1,267	-1,022	-772	-113	558	558	558	558	
Cumulative profit/loss			-276	-360	-405	-489	-538	-985	-1,441	-1,244	-1,003	-758	-111	548	558	558	558	558	
Interest	*Charged at*	*7.50%*	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	0.00%	0.00%	0.00%	0.00%	
	Total		-5	-7	-8	-9	-10	-18	-27	-23	-19	-14	-2	10	0	0	0	0	**-132**
Cumulative developer profit carried forward to RV calc			**-281**	**-367**	**-413**	**-498**	**-548**	**-1,004**	**-1,468**	**-1,267**	**-1,022**	**-772**	**-113**	**558**	**558**	**558**	**558**	**558**	**557**

SITE 13: Town centre brownfield

Input assumptions | **Scenario & option** | Affordable 10% = 70% social rented 30% intermediate

East Staffs Viability

Site details

Site		13. Town centre brownfield
Location		Urban
Area	ha	0.50
	acres	1.24
No dwgs		44
Density dw/ha		88.0

		£k
Contingency		
allowance	5.00%	173
Development costs		
standard % build	14.50%	526
plus abnormals	6.4%	232
Total	21%	
Design fees		
on build costs	10.0%	363
on dev costs	8%	
Planning gain & Grant contributions		
PG £ per dwg	3,000	132
Grant £ per dwg	0	0

PG ALL

Dwellings

Dwellings		% of dwgs	% of units	ave floor space gross sq ft	ave floor space net sq ft	build cost per sq ft	build index = 1.000	sales value per sq ft
Market housing	39.6	90.00%	90.00%	854	726	92.00	92.00	175.00
						0.0%		
Affordable soc rent	3.1	7.00%	7.0%	854	726	92.00	92.00	80.00
						0.0%		
Affordable sh oship	1.3	3.00%	3.0%	854	726	92.00	92.00	123.00
Total dwgs	44.0	100.00%	100.0%					
			0.0%	0	0	0.00	0.00	0.00
			0.0%	0	0	0.00	0.00	0.00
Total units	44.0		100.0%	37,576	31,944		£3,456,992	£5,327,940

Floorspace density = 25,855 net sq ft per acre

Other costs

Planning	515.0	£ per dwelling
Survey	500	£ per dwelling
Marketing	0	£ per dwelling

Interest
% per annum 7.50%

Notes

SITE 13 LAND COST & PHASING

Land

Iterate to achieve 20.0% profit

		Affordable	No affordable	Hectare: Affordable	Hectare: No affordable
Land purchase price	£	**-781,513**	**-628,592**		
RV per acre	£	**-632,548**	**-508,775**	**-£1,563,026**	**-£1,257,183**
Dev profit	£	**869,615**	**933,285**		
Total costs	£	**4,459,150**	**4,657,740**		
profit as % of costs		**19.50%**	**20.04%**		

Programme		Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
Units started	*Market housing*			0.0	7.2	10.8	10.8	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.6
	Affordable soc rent			0.0	0.6	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
	Affordable sh oship			0.0	0.2	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	0	0	0	8	12	12	12	0	0	0	0	0	0	0	0	0	44.0
Units 'built'	*Market housing*					0	7	11	11	11	0	0	0	0	0	0	0	40
+2Q	*Affordable soc rent*					0	1	1	1	1	0	0	0	0	0	0	0	3
	Affordable sh oship					0	0	0	0	0	0	0	0	0	0	0	0	1
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
Units completed	*Market housing*						0	7	11	11	11	0	0	0	0	0	0	40
+3Q	*Affordable soc rent*						0	1	1	1	1	0	0	0	0	0	0	3
	Affordable sh oship						0	0	0	0	0	0	0	0	0	0	0	1
	0						0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0
Units purchased	*Market housing*							0	7	11	11	11	0	0	0	0	0	40
+4Q	*Affordable soc rent*							0	1	1	1	1	0	0	0	0	0	3
	Affordable sh oship							0	0	0	0	0	0	0	0	0	0	1
	0							0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0

SITE 13 CASH FLOW AFFORDABLE

		rate	Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
INCOME																			
Housing sales	*Market housing*		0	0	0	0	0	0	0	915	1,372	1,372	1,372	0	0	0	0	0	5,031
	Affordable soc rent		0	0	0	0	0	0	0	33	49	49	49	0	0	0	0	0	179
	Affordable sh oship		0	0	0	0	0	0	0	21	32	32	32	0	0	0	0	0	118
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sales fees		0	0	0	0	0	0	0	-33	-49	-49	-49	0	0	0	0	0	-179
Total income			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**969**	**1,453**	**1,453**	**1,453**	**0**	**0**	**0**	**0**	**0**	**5,328**
COSTS																			
Land	*Land acquisition*		-782																-782
	Stamp duty		0																0
	Purchase fees		-21																-21
	Total																		**-803**
Build costs	*Market housing*		0	0	0	0	0	566	849	849	849	0	0	0	0	0	0	0	3,111
	Affordable soc rent		0	0	0	0	0	44	66	66	66	0	0	0	0	0	0	0	242
	Affordable sh oship		0	0	0	0	0	19	28	28	28	0	0	0	0	0	0	0	104
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Build contingency	*5.0%*	0	0	0	0	0	31	47	47	47	0	0	0	0	0	0	0	173
	Total																		**3,630**
Dev costs	*Upfront*	*7.3%*	66	66	66	66													263
	Build related	*7.3%*	0	0	0	48	72	72	72	0	0	0	0	0	0	0	0	0	263
	Abnormals	*6%*	116	116															232
	Total																		**759**
Fees	*Fees on build costs*	*10.0%*	0	0	0	0	0	66	99	99	99	0	0	0	0	0	0	0	363
	Fees on dev costs	*8.0%*	15	15	5	9	6	6	6	0	0	0	0	0	0	0	0	0	61
	Total																		**424**
PG	*Planning gain*				0	24	36	36	36	0	0	0	0	0	0	0	0	0	132
	Total																		**132**
Grant	*Grant*				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**0**
Other	*Planning*	*£515*	8	8	8														23
	Survey	*£500*	22																22
	Marketing	*£0*			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**45**
Sales fees	*b/forward from above*		0	0	0	0	0	0	0	33	49	49	49	0	0	0	0	0	**179**
Total costs			**-577**	**204**	**79**	**147**	**114**	**839**	**1,202**	**1,121**	**1,138**	**49**	**49**	**0**	**0**	**0**	**0**	**0**	**4,365**
Net profit/loss from quarter			**577**	**-204**	**-79**	**-147**	**-114**	**-839**	**-1,202**	**-153**	**315**	**1,404**	**1,404**	**0**	**0**	**0**	**0**	**0**	**963**
Profit/loss bf from last quarter			0	588	391	318	175	63	-791	-2,031	-2,225	-1,945	-551	870	870	870	870	870	
Cumulative profit/loss			577	384	312	172	61	-777	-1,994	-2,184	-1,909	-541	854	870	870	870	870	870	
Interest	*Charged at*	*7.50%*	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	0.00%	0.00%	0.00%	0.00%	0.00%	
	Total		11	7	6	3	1	-15	-37	-41	-36	-10	16	0	0	0	0	0	**-95**
Cumulative developer profit carried forward to RV calc			**588**	**391**	**318**	**175**	**63**	**-791**	**-2,031**	**-2,225**	**-1,945**	**-551**	**870**	**870**	**870**	**870**	**870**	**870**	**869**

SITE 14: Small urban brownfield

Input assumptions | **Scenario & option** | Affordable 10% = 70% social rented 30% intermediate

East Staffs Viability

Site details

Site		14. Small brownfield
Location		Urban
Area	ha	0.26
	acres	0.64
No dwgs		10
Density dw/ha		38.5

	£k	
Contingency		
allowance	5.00%	37
Development costs		
standard % build	13.50%	104
plus abnormals	3.2%	25
Total	17%	
Design fees		
on build costs	10.0%	77
on dev costs	8%	
Planning gain & Grant contributions		
PG £ per dwg	3,000	30
Grant £ per dwg	0	0

PG ALL

Dwellings

Dwellings		% of dwgs	% of units	ave floor space gross sq ft	ave floor space net sq ft	build cost per sq ft	build index = 1.000	sales value per sq ft
Market housing	9.0	90.00%	90.00%	914	914	80.00	80.00	180.00
						0.0%		
Affordable soc rent	0.7	7.00%	7.0%	914	914	80.00	80.00	75.00
						0.0%		
Affordable sh oship	0.3	3.00%	3.0%	914	914	80.00	80.00	125.00
Total dwgs	10.0	100.00%	100.0%					
			0.0%	0	0	0.00	0.00	0.00
			0.0%	0	0	0.00	0.00	0.00
Total units	10.0		100.0%	9,140	9,140		£731,200	£1,562,940

Floorspace density = 14,227 net sq ft per acre

Other costs

Planning	515.0	£ per dwelling
Survey	500	£ per dwelling
Marketing	0	£ per dwelling

Interest
% per annum 7.50%

Notes

FORDHAM RESEARCH

SITE 14 LAND COST & PHASING

Land

Iterate to achieve 20.0% profit

		Affordable	No affordable	Hectare: Affordable	Hectare: No affordable
Land purchase price	£	**160,278**	**209,256**		
RV per acre	£	**249,475**	**325,710**	**£616,453**	**£804,829**
Dev profit	£	**255,190**	**274,495**		
Total costs	£	**1,308,500**	**1,371,455**		
profit as % of costs		**19.50%**	**20.01%**		

Programme		Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
Units started	*Market housing*			0.9	2.7	2.7	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
	Affordable soc rent			0.1	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
	Affordable sh oship			0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	0	0	1	3	3	3	0	0	0	0	0	0	0	0	0	0	10.0
Units 'built'	*Market housing*					1	3	3	3	0	0	0	0	0	0	0	0	9
+2Q	*Affordable soc rent*					0	0	0	0	0	0	0	0	0	0	0	0	1
	Affordable sh oship					0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
Units completed	*Market housing*						1	3	3	3	0	0	0	0	0	0	0	9
+3Q	*Affordable soc rent*						0	0	0	0	0	0	0	0	0	0	0	1
	Affordable sh oship						0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0
Units purchased	*Market housing*							1	3	3	3	0	0	0	0	0	0	9
+4Q	*Affordable soc rent*							0	0	0	0	0	0	0	0	0	0	1
	Affordable sh oship							0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0

SITE 14 CASH FLOW AFFORDABLE

		rate	Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
INCOME																			
Housing sales	*Market housing*		0	0	0	0	0	0	148	444	444	444	0	0	0	0	0	0	1,481
	Affordable soc rent		0	0	0	0	0	0	5	14	14	14	0	0	0	0	0	0	48
	Affordable sh oship		0	0	0	0	0	0	3	10	10	10	0	0	0	0	0	0	34
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sales fees		0	0	0	0	0	0	-5	-16	-16	-16	0	0	0	0	0	0	-53
Total income			**0**	**0**	**0**	**0**	**0**	**0**	**156**	**469**	**469**	**469**	**0**	**0**	**0**	**0**	**0**	**0**	**1,563**
COSTS																			
Land	*Land acquisition*		160																160
	Stamp duty		2																2
	Purchase fees		4																4
	Total																		**166**
Build costs	*Market housing*		0	0	0	0	66	197	197	197	0	0	0	0	0	0	0	0	658
	Affordable soc rent		0	0	0	0	5	15	15	15	0	0	0	0	0	0	0	0	51
	Affordable sh oship		0	0	0	0	2	7	7	7	0	0	0	0	0	0	0	0	22
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Build contingency	*5.0%*	0	0	0	0	4	11	11	11	0	0	0	0	0	0	0	0	37
	Total																		**768**
Dev costs	*Upfront*	*6.8%*	13	13	13	13													52
	Build related	*6.8%*	0	0	5	16	16	16	0	0	0	0	0	0	0	0	0	0	52
	Abnormals	*3%*	12	12															25
	Total																		**128**
Fees	*Fees on build costs*	*10.0%*	0	0	0	0	8	23	23	23	0	0	0	0	0	0	0	0	77
	Fees on dev costs	*8.0%*	2	2	1	2	1	1	0	0	0	0	0	0	0	0	0	0	10
	Total																		**87**
PG	*Planning gain*				3	9	9	9	0	0	0	0	0	0	0	0	0	0	30
	Total																		**30**
Grant	*Grant*				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**0**
Other	*Planning*	*£515*	2	2	2														5
	Survey	*£500*	5																5
	Marketing	*£0*			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**10**
Sales fees	*b/forward from above*		0	0	0	0	0	0	5	16	16	16	0	0	0	0	0	0	**53**
Total costs			**200**	**29**	**24**	**40**	**110**	**279**	**259**	**269**	**16**	**16**	**0**	**0**	**0**	**0**	**0**	**0**	**1,242**
Net profit/loss from quarter			**-200**	**-29**	**-24**	**-40**	**-110**	**-279**	**-102**	**200**	**453**	**453**	**0**	**0**	**0**	**0**	**0**	**0**	**321**
Profit/loss bf from last quarter			0	-204	-237	-266	-312	-430	-722	-840	-652	-203	255	255	255	255	255	255	
Cumulative profit/loss			-200	-233	-262	-306	-422	-709	-825	-640	-199	250	255	255	255	255	255	255	
Interest	*Charged at*	*7.50%*	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	Total		-4	-4	-5	-6	-8	-13	-15	-12	-4	5	0	0	0	0	0	0	**-66**
Cumulative developer profit carried forward to RV calc			**-204**	**-237**	**-266**	**-312**	**-430**	**-722**	**-840**	**-652**	**-203**	**255**	**255**	**255**	**255**	**255**	**255**	**255**	**254**

SITE 15: Small urban brownfield

Input assumptions

Scenario & option Affordable 10% = 70% social rented 30% intermediate

East Staffs Viability

Site details

Site		15. Small brownfield
Location		Urban
Area	ha	0.20
	acres	0.49
No dwgs		8
Density dw/ha		40.0

		£k
Contingency		
allowance	5.00%	25
Development costs		
standard % build	14.50%	76
plus abnormals	14.0%	74
Total	29%	
Design fees		
on build costs	10.0%	53
on dev costs	8%	
Planning gain & Grant contributions		
PG £ per dwg	3,000	24
Grant £ per dwg	0	0

PG ALL

Dwellings

Dwellings		% of dwgs	% of units	ave floor space gross sq ft	ave floor space net sq ft	build cost per sq ft	build index = 1.000	sales value per sq ft
Market housing	7.2	90.00%	90.00%	765	765	82.00	82.00	180.00
						0.0%		
Affordable soc rent	0.6	7.00%	7.0%	765	765	82.00	82.00	75.00
						0.0%		
Affordable sh oship	0.2	3.00%	3.0%	765	765	82.00	82.00	125.00
Total dwgs	8.0	100.00%	100.0%					
			0.0%	0	0	0.00	0.00	0.00
			0.0%	0	0	0.00	0.00	0.00
Total units	8.0		100.0%	6,120	6,120		£501,840	£1,046,520

Floorspace density = 12,384 net sq ft per acre

Other costs

Planning	515.0	£ per dwelling
Survey	500	£ per dwelling
Marketing	0	£ per dwelling

Interest
% per annum 7.50%

Notes

SITE 15 LAND COST & PHASING

Land

		Iterate to achieve 20.0% profit		Hectare	
		Affordable	No affordable	Affordable	No affordable
Land purchase price	£	**25,621**	**59,106**		
RV per acre	£	**51,844**	**119,599**	**£128,106**	**£295,528**
Dev profit	£	**170,888**	**183,790**		
Total costs	£	**876,307**	**918,485**		
profit as % of costs		**19.50%**	**20.01%**		

Programme		Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
Units started	*Market housing*			1.8	2.7	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2
	Affordable soc rent			0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
	Affordable sh oship			0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	0	0	2	3	3	0	0	0	0	0	0	0	0	0	0	0	8.0
Units 'built'	*Market housing*					2	3	3	0	0	0	0	0	0	0	0	0	7
+2Q	*Affordable soc rent*					0	0	0	0	0	0	0	0	0	0	0	0	1
	Affordable sh oship					0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
Units completed	*Market housing*						2	3	3	0	0	0	0	0	0	0	0	7
+3Q	*Affordable soc rent*						0	0	0	0	0	0	0	0	0	0	0	1
	Affordable sh oship						0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0
Units purchased	*Market housing*							2	3	3	0	0	0	0	0	0	0	7
+4Q	*Affordable soc rent*							0	0	0	0	0	0	0	0	0	0	1
	Affordable sh oship							0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0

SITE 15 CASH FLOW AFFORDABLE

		rate	Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
INCOME																			
Housing sales	*Market housing*		0	0	0	0	0	0	248	372	372	0	0	0	0	0	0	0	991
	Affordable soc rent		0	0	0	0	0	0	8	12	12	0	0	0	0	0	0	0	32
	Affordable sh oship		0	0	0	0	0	0	6	9	9	0	0	0	0	0	0	0	23
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sales fees		0	0	0	0	0	0	-9	-13	-13	0	0	0	0	0	0	0	-35
Total income			**0**	**0**	**0**	**0**	**0**	**0**	**262**	**392**	**392**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,047**
COSTS																			
Land	*Land acquisition*		26																26
	Stamp duty		0																0
	Purchase fees		1																1
	Total																		**26**
Build costs	*Market housing*		0	0	0	0	113	169	169	0	0	0	0	0	0	0	0	0	452
	Affordable soc rent		0	0	0	0	9	13	13	0	0	0	0	0	0	0	0	0	35
	Affordable sh oship		0	0	0	0	4	6	6	0	0	0	0	0	0	0	0	0	15
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Build contingency	*5.0%*	0	0	0	0	6	9	9	0	0	0	0	0	0	0	0	0	25
	Total																		**527**
Dev costs	*Upfront*	*7.3%*	10	10	10	10													38
	Build related	*7.3%*	0	0	10	14	14	0	0	0	0	0	0	0	0	0	0	0	38
	Abnormals	*14%*	37	37															74
	Total																		**150**
Fees	*Fees on build costs*	*10.0%*	0	0	0	0	13	20	20	0	0	0	0	0	0	0	0	0	53
	Fees on dev costs	*8.0%*	4	4	2	2	1	0	0	0	0	0	0	0	0	0	0	0	12
	Total																		**65**
PG	*Planning gain*				6	9	9	0	0	0	0	0	0	0	0	0	0	0	24
	Total																		**24**
Grant	*Grant*				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**0**
Other	*Planning*	*£515*	1	1	1														4
	Survey	*£500*	4																4
	Marketing	*£0*			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**8**
Sales fees	*b/forward from above*		0	0	0	0	0	0	9	13	13	0	0	0	0	0	0	0	**35**
Total costs			**82**	**52**	**28**	**35**	**169**	**217**	**226**	**13**	**13**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**835**
Net profit/loss from quarter			**-82**	**-52**	**-28**	**-35**	**-169**	**-217**	**35**	**379**	**379**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**211**
Profit/loss bf from last quarter			0	-83	-137	-168	-207	-383	-612	-587	-212	171	171	171	171	171	171	171	
Cumulative profit/loss			-82	-135	-165	-203	-376	-601	-576	-208	168	171	171	171	171	171	171	171	
Interest	*Charged at*	*7.50%*	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	Total		-2	-3	-3	-4	-7	-11	-11	-4	3	0	0	0	0	0	0	0	**-41**
Cumulative developer profit carried forward to RV calc			**-83**	**-137**	**-168**	**-207**	**-383**	**-612**	**-587**	**-212**	**171**	**171**	**171**	**171**	**171**	**171**	**171**	**171**	**170**

SITE 16: Village brownfield

Input assumptions

Scenario & option Affordable 10% = 70% social rented 30% intermediate

East Staffs Viability

Site details

Site		16. Brownfield
Location		Village
Area	ha	0.12
	acres	0.30
No dwgs		7
Density dw/ha		58.3

		£k
Contingency		
allowance	5.00%	23
Development costs		
standard % build	10.50%	52
plus abnormals	10.2%	50
Total	21%	
Design fees		
on build costs	10.0%	49
on dev costs	8%	
Planning gain & Grant contributions		
PG £ per dwg	3,000	21
Grant £ per dwg	0	0

PG ALL

Dwellings

Dwellings		% of dwgs	% of units	ave floor space gross sq ft	ave floor space net sq ft	build cost per sq ft	build index = 1.000	sales value per sq ft
Market housing	6.3	90.00%	90.00%	785	785	85.50	85.50	200.00
						0.0%		
Affordable soc rent	0.5	7.00%	7.0%	785	785	85.50	85.50	75.00
						0.0%		
Affordable sh oship	0.2	3.00%	3.0%	785	785	85.50	85.50	135.00
Total dwgs	7.0	100.00%	100.0%					
			0.0%	0	0	0.00	0.00	0.00
			0.0%	0	0	0.00	0.00	0.00
Total units	7.0		100.0%	5,495	5,495		£469,823	£1,040,204

Floorspace density = 18,532 net sq ft per acre

Other costs

Planning	515.0	£ per dwelling
Survey	500	£ per dwelling
Marketing	0	£ per dwelling

Interest
% per annum 7.50%

Notes

SITE 16 LAND COST & PHASING

Land

Iterate to achieve 20.0% profit

		Affordable	No affordable	Hectare: Affordable	Hectare: No affordable
Land purchase price	£	**104,817**	**140,532**		
RV per acre	£	**353,490**	**473,939**	**£873,475**	**£1,171,104**
Dev profit	£	**169,870**	**183,299**		
Total costs	£	**871,008**	**916,376**		
profit as % of costs		**19.50%**	**20.00%**		

Programme		Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
Units started	*Market housing*			0.9	2.7	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3
	Affordable soc rent			0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
	Affordable sh oship			0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	0	0	1	3	3	0	0	0	0	0	0	0	0	0	0	0	7.0
Units 'built'	*Market housing*					1	3	3	0	0	0	0	0	0	0	0	0	6
+2Q	*Affordable soc rent*					0	0	0	0	0	0	0	0	0	0	0	0	0
	Affordable sh oship					0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
Units completed	*Market housing*						1	3	3	0	0	0	0	0	0	0	0	6
+3Q	*Affordable soc rent*						0	0	0	0	0	0	0	0	0	0	0	0
	Affordable sh oship						0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0
Units purchased	*Market housing*							1	3	3	0	0	0	0	0	0	0	6
+4Q	*Affordable soc rent*							0	0	0	0	0	0	0	0	0	0	0
	Affordable sh oship							0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0

SITE 16 CASH FLOW AFFORDABLE

		rate	Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
INCOME																			
Housing sales	*Market housing*		0	0	0	0	0	0	141	424	424	0	0	0	0	0	0	0	989
	Affordable soc rent		0	0	0	0	0	0	4	12	12	0	0	0	0	0	0	0	29
	Affordable sh oship		0	0	0	0	0	0	3	10	10	0	0	0	0	0	0	0	22
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sales fees		0	0	0	0	0	0	-5	-15	-15	0	0	0	0	0	0	0	-35
Total income			**0**	**0**	**0**	**0**	**0**	**0**	**149**	**446**	**446**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,040**
COSTS																			
Land	*Land acquisition*		105																105
	Stamp duty		1																1
	Purchase fees		3																3
	Total																		**109**
Build costs	*Market housing*		0	0	0	0	60	181	181	0	0	0	0	0	0	0	0	0	423
	Affordable soc rent		0	0	0	0	5	14	14	0	0	0	0	0	0	0	0	0	33
	Affordable sh oship		0	0	0	0	2	6	6	0	0	0	0	0	0	0	0	0	14
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Build contingency	*5.0%*	0	0	0	0	3	10	10	0	0	0	0	0	0	0	0	0	23
	Total																		**493**
Dev costs	*Upfront*	*5.3%*	6	6	6	6													26
	Build related	*5.3%*	0	0	4	11	11	0	0	0	0	0	0	0	0	0	0	0	26
	Abnormals	*10%*	25	25															50
	Total																		**102**
Fees	*Fees on build costs*	*10.0%*	0	0	0	0	7	21	21	0	0	0	0	0	0	0	0	0	49
	Fees on dev costs	*8.0%*	3	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0	8
	Total																		**58**
PG	*Planning gain*				3	9	9	0	0	0	0	0	0	0	0	0	0	0	21
	Total																		**21**
Grant	*Grant*				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**0**
Other	*Planning*	*£515*	1	1	1														4
	Survey	*£500*	4																4
	Marketing	*£0*			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**7**
Sales fees	*b/forward from above*		0	0	0	0	0	0	5	15	15	0	0	0	0	0	0	0	**35**
Total costs			**148**	**35**	**15**	**28**	**99**	**233**	**238**	**15**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**825**
Net profit/loss from quarter			**-148**	**-35**	**-15**	**-28**	**-99**	**-233**	**-89**	**431**	**431**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**215**
Profit/loss bf from last quarter			0	-150	-189	-208	-240	-345	-588	-690	-264	170	170	170	170	170	170	170	
Cumulative profit/loss			-148	-186	-204	-236	-339	-578	-677	-259	167	170	170	170	170	170	170	170	
Interest	*Charged at*	*7.50%*	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	Total		-3	-3	-4	-4	-6	-11	-13	-5	3	0	0	0	0	0	0	0	**-46**
Cumulative developer profit carried forward to RV calc			**-150**	**-189**	**-208**	**-240**	**-345**	**-588**	**-690**	**-264**	**170**	**170**	**170**	**170**	**170**	**170**	**170**	**170**	**169**

SITE A: Rural 1

Input assumptions | **Scenario & option** | Affordable 10% = 70% social rented 30% intermediate

East Staffs Viability

Site details

Site		A. Rural Site 1
Location		
Area	ha	0.23
	acres	0.57
No dwgs		8
Density dw/ha		34.8

		£k
Contingency		
allowance	5.00%	38
Development costs		
standard % build	12.00%	95
plus abnormals	1.3%	10
Total	13%	
Design fees		
on build costs	10.0%	79
on dev costs	8%	
Planning gain & Grant contributions		
PG £ per dwg	3,000	24
Grant £ per dwg	0	0
PG ALL		

Dwellings

Dwellings		% of dwgs	% of units	ave floor space gross sq ft	ave floor space net sq ft	build cost per sq ft	build index = 1.000	sales value per sq ft
Market housing	7.2	90.00%	90.00%	1,083	1,083	87.00	87.00	203.00
						0.0%		
Affordable soc rent	0.6	7.00%	7.0%	1,083	1,083	87.00	87.00	75.00
						0.0%		
Affordable sh oship	0.2	3.00%	3.0%	1,083	1,083	87.00	87.00	135.00
Total dwgs	8.0	100.00%	100.0%					
			0.0%	0	0	0.00	0.00	0.00
			0.0%	0	0	0.00	0.00	0.00
Total units	8.0		100.0%	8,664	8,664		£753,768	£1,663,488

Floorspace density = 15,245 net sq ft per acre

Other costs

Planning	515.0	£ per dwelling
Survey	500	£ per dwelling
Marketing	0	£ per dwelling

Interest

% per annum	7.50%

Notes

SITE A LAND COST & PHASING

Land

Iterate to achieve 20.0% profit

		Affordable	No affordable	Hectare: Affordable	Hectare: No affordable
Land purchase price	£	**238,506**	**296,667**		
RV per acre	£	**419,661**	**521,998**	**£1,036,982**	**£1,289,858**
Dev profit	£	**271,582**	**293,357**		
Total costs	£	**1,392,581**	**1,466,110**		
profit as % of costs		**19.50%**	**20.01%**		

Programme		Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
Units started	*Market housing*			1.8	2.7	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2
	Affordable soc rent			0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
	Affordable sh oship			0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	0	0	2	3	3	0	0	0	0	0	0	0	0	0	0	0	8.0
Units 'built' +2Q	*Market housing*					2	3	3	0	0	0	0	0	0	0	0	0	7
	Affordable soc rent					0	0	0	0	0	0	0	0	0	0	0	0	1
	Affordable sh oship					0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
Units completed +3Q	*Market housing*						2	3	3	0	0	0	0	0	0	0	0	7
	Affordable soc rent						0	0	0	0	0	0	0	0	0	0	0	1
	Affordable sh oship						0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0
Units purchased +4Q	*Market housing*							2	3	3	0	0	0	0	0	0	0	7
	Affordable soc rent							0	0	0	0	0	0	0	0	0	0	1
	Affordable sh oship							0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0

SITE A CASH FLOW AFFORDABLE

		rate	Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
INCOME																			
Housing sales	*Market housing*		0	0	0	0	0	0	396	594	594	0	0	0	0	0	0	0	1,583
	Affordable soc rent		0	0	0	0	0	0	11	17	17	0	0	0	0	0	0	0	45
	Affordable sh oship		0	0	0	0	0	0	9	13	13	0	0	0	0	0	0	0	35
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sales fees		0	0	0	0	0	0	-14	-21	-21	0	0	0	0	0	0	0	-56
Total income			**0**	**0**	**0**	**0**	**0**	**0**	**416**	**624**	**624**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,663**
COSTS																			
Land	*Land acquisition*		239																239
	Stamp duty		2																2
	Purchase fees		7																7
	Total																		**247**
Build costs	*Market housing*		0	0	0	0	170	254	254	0	0	0	0	0	0	0	0	0	678
	Affordable soc rent		0	0	0	0	13	20	20	0	0	0	0	0	0	0	0	0	53
	Affordable sh oship		0	0	0	0	6	8	8	0	0	0	0	0	0	0	0	0	23
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Build contingency	*5.0%*	0	0	0	0	9	14	14	0	0	0	0	0	0	0	0	0	38
	Total																		**791**
Dev costs	*Upfront*	*6.0%*	12	12	12	12													47
	Build related	*6.0%*	0	0	12	18	18	0	0	0	0	0	0	0	0	0	0	0	47
	Abnormals	*1%*	5	5															10
	Total																		**105**
Fees	*Fees on build costs*	*10.0%*	0	0	0	0	20	30	30	0	0	0	0	0	0	0	0	0	79
	Fees on dev costs	*8.0%*	1	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	8
	Total																		**88**
PG	*Planning gain*				6	9	9	0	0	0	0	0	0	0	0	0	0	0	24
	Total																		**24**
Grant	*Grant*				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**0**
Other	*Planning*	*£515*	1	1	1														4
	Survey	*£500*	4																4
	Marketing	*£0*			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**8**
Sales fees	*b/forward from above*		0	0	0	0	0	0	14	21	21	0	0	0	0	0	0	0	**56**
Total costs			**271**	**20**	**33**	**41**	**246**	**326**	**341**	**21**	**21**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,320**
Net profit/loss from quarter			**-271**	**-20**	**-33**	**-41**	**-246**	**-326**	**75**	**603**	**603**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**343**
Profit/loss bf from last quarter			0	-276	-301	-341	-389	-646	-991	-933	-336	272	272	272	272	272	272	272	
Cumulative profit/loss			-271	-296	-334	-382	-635	-973	-916	-330	267	272	272	272	272	272	272	272	
Interest	*Charged at*	*7.50%*	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	Total		-5	-6	-6	-7	-12	-18	-17	-6	5	0	0	0	0	0	0	0	**-73**
Cumulative developer profit carried forward to RV calc			**-276**	**-301**	**-341**	**-389**	**-646**	**-991**	**-933**	**-336**	**272**	**272**	**272**	**272**	**272**	**272**	**272**	**272**	**271**

SITE B: Rural 2

Input assumptions

Scenario & option Affordable 10% = 70% social rented 30% intermediate

East Staffs Viability

Site details

Site		B. Rural Site 2
Location		
Area	ha	0.20
	acres	0.49
No dwgs		6
Density dw/ha		30.0

		£k
Contingency		
allowance	2.50%	14
Development costs		
standard % build	12.00%	67
plus abnormals	0.0%	0
Total	12%	
Design fees		
on build costs	10.0%	56
on dev costs	8%	
Planning gain & Grant contributions		
PG £ per dwg	3,000	18
Grant £ per dwg	0	0

PG ALL

Dwellings

Dwellings		% of dwgs	% of units	ave floor space gross sq ft	ave floor space net sq ft	build cost per sq ft	build index = 1.000	sales value per sq ft
Market housing	5.4	90.00%	90.00%	1,030	1,030	88.50	88.50	210.00
						0.0%		
Affordable soc rent	0.4	7.00%	7.0%	1,030	1,030	88.50	88.50	75.00
						0.0%		
Affordable sh oship	0.2	3.00%	3.0%	1,030	1,030	88.50	88.50	135.00
Total dwgs	6.0	100.00%	100.0%					
			0.0%	0	0	0.00	0.00	0.00
			0.0%	0	0	0.00	0.00	0.00
Total units	6.0		100.0%	6,180	6,180		£546,930	£1,225,494

Floorspace density = 12,505 net sq ft per acre

Other costs

Planning	515.0	£ per dwelling
Survey	200	£ per dwelling
Marketing	0	£ per dwelling

Interest
% per annum 7.50%

Notes

SITE B LAND COST & PHASING

Land

Iterate to achieve 20.0% profit

		Affordable	No affordable	Hectare Affordable	Hectare No affordable
Land purchase price	£	**210,251**	**254,735**		
RV per acre	£	**425,437**	**515,449**	**£1,051,255**	**£1,273,675**
Dev profit	£	**200,116**	**216,460**		
Total costs	£	**1,026,053**	**1,082,015**		
profit as % of costs		**19.50%**	**20.01%**		

Programme		Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
Units started	*Market housing*			1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
	Affordable soc rent			0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
	Affordable sh oship			0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	0	0	2	2	2	0	0	0	0	0	0	0	0	0	0	0	6.0
Units 'built' +2Q	*Market housing*					2	2	2	0	0	0	0	0	0	0	0	0	5
	Affordable soc rent					0	0	0	0	0	0	0	0	0	0	0	0	0
	Affordable sh oship					0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
Units completed +3Q	*Market housing*						2	2	2	0	0	0	0	0	0	0	0	5
	Affordable soc rent						0	0	0	0	0	0	0	0	0	0	0	0
	Affordable sh oship						0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0
Units purchased +4Q	*Market housing*							2	2	2	0	0	0	0	0	0	0	5
	Affordable soc rent							0	0	0	0	0	0	0	0	0	0	0
	Affordable sh oship							0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0

SITE B CASH FLOW AFFORDABLE

		rate	Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
INCOME																			
Housing sales	*Market housing*		0	0	0	0	0	0	389	389	389	0	0	0	0	0	0	0	1,168
	Affordable soc rent		0	0	0	0	0	0	11	11	11	0	0	0	0	0	0	0	32
	Affordable sh oship		0	0	0	0	0	0	8	8	8	0	0	0	0	0	0	0	25
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sales fees		0	0	0	0	0	0	-14	-14	-14	0	0	0	0	0	0	0	-41
Total income			**0**	**0**	**0**	**0**	**0**	**0**	**408**	**408**	**408**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,225**
COSTS																			
Land	*Land acquisition*		210																210
	Stamp duty		2																2
	Purchase fees		6																6
	Total																		**218**
Build costs	*Market housing*		0	0	0	0	164	164	164	0	0	0	0	0	0	0	0	0	492
	Affordable soc rent		0	0	0	0	13	13	13	0	0	0	0	0	0	0	0	0	38
	Affordable sh oship		0	0	0	0	5	5	5	0	0	0	0	0	0	0	0	0	16
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Build contingency	*2.5%*	0	0	0	0	5	5	5	0	0	0	0	0	0	0	0	0	14
	Total																		**561**
Dev costs	*Upfront*	*6.0%*	8	8	8	8													34
	Build related	*6.0%*	0	0	11	11	11	0	0	0	0	0	0	0	0	0	0	0	34
	Abnormals	*0%*	0	0															0
	Total																		**67**
Fees	*Fees on build costs*	*10.0%*	0	0	0	0	19	19	19	0	0	0	0	0	0	0	0	0	56
	Fees on dev costs	*8.0%*	1	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	5
	Total																		**61**
PG	*Planning gain*				6	6	6	0	0	0	0	0	0	0	0	0	0	0	18
	Total																		**18**
Grant	*Grant*				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**0**
Other	*Planning*	*£515*	1	1	1														3
	Survey	*£200*	1																1
	Marketing	*£0*			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**4**
Sales fees	*b/forward from above*		0	0	0	0	0	0	14	14	14	0	0	0	0	0	0	0	**41**
Total costs			**229**	**10**	**28**	**27**	**224**	**206**	**219**	**14**	**14**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**971**
Net profit/loss from quarter			**-229**	**-10**	**-28**	**-27**	**-224**	**-206**	**189**	**395**	**395**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**254**
Profit/loss bf from last quarter			0	-234	-248	-282	-315	-548	-768	-589	-198	200	200	200	200	200	200	200	
Cumulative profit/loss			-229	-244	-277	-309	-538	-754	-579	-195	196	200	200	200	200	200	200	200	
Interest	*Charged at*	*7.50%*	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	Total		-4	-5	-5	-6	-10	-14	-11	-4	4	0	0	0	0	0	0	0	**-55**
Cumulative developer profit carried forward to RV calc			**-234**	**-248**	**-282**	**-315**	**-548**	**-768**	**-589**	**-198**	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**199**

SITE C: Rural 3

Input assumptions

Scenario & option Affordable 10% = 70% social rented 30% intermediate

East Staffs Viability

Site details

Site		C. Rural Site 3
Location		
Area	ha	0.17
	acres	0.42
No dwgs		4
Density dw/ha		23.5

		£k
Contingency		
allowance	2.50%	12
Development costs		
standard % build	12.00%	57
plus abnormals	0.0%	0
Total	12%	
Design fees		
on build costs	10.0%	48
on dev costs	8%	
Planning gain & Grant contributions		
PG £ per dwg	3,000	12
Grant £ per dwg	0	0

PG ALL

Dwellings

Dwellings		% of dwgs	% of units	ave floor space gross sq ft	ave floor space net sq ft	build cost per sq ft	build index = 1.000	sales value per sq ft
Market housing	3.6	90.00%	90.00%	1,286	1,286	90.50	90.50	210.00
						0.0%		
Affordable soc rent	0.3	7.00%	7.0%	1,286	1,286	90.50	90.50	75.00
						0.0%		
Affordable sh oship	0.1	3.00%	3.0%	1,286	1,286	90.50	90.50	135.00
Total dwgs	4.0	100.00%	100.0%					
			0.0%	0	0	0.00	0.00	0.00
			0.0%	0	0	0.00	0.00	0.00
Total units	4.0		100.0%	5,144	5,144		£465,532	£1,020,055

Floorspace density = 12,246 net sq ft per acre

Other costs

Planning	515.0	£ per dwelling
Survey	200	£ per dwelling
Marketing	0	£ per dwelling

Interest

% per annum 7.50%

Notes

SITE C LAND COST & PHASING

Land

		Iterate to achieve 20.0% profit		Hectare	
		Affordable	No affordable	Affordable	No affordable
Land purchase price	£	167,539	204,788		
RV per acre	£	398,837	487,508	£985,525	£1,204,633
Dev profit	£	166,559	180,182		
Total costs	£	854,096	900,658		
profit as % of costs		19.50%	20.01%		

Programme		Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
Units started	*Market housing*			1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
	Affordable soc rent			0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
	Affordable sh oship			0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	4.0
Units 'built'	*Market housing*					2	2	0	0	0	0	0	0	0	0	0	0	4
+2Q	*Affordable soc rent*					0	0	0	0	0	0	0	0	0	0	0	0	0
	Affordable sh oship					0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
	0					0	0	0	0	0	0	0	0	0	0	0	0	0
Units completed	*Market housing*						2	2	0	0	0	0	0	0	0	0	0	4
+3Q	*Affordable soc rent*						0	0	0	0	0	0	0	0	0	0	0	0
	Affordable sh oship						0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0
	0						0	0	0	0	0	0	0	0	0	0	0	0
Units purchased	*Market housing*							2	2	0	0	0	0	0	0	0	0	4
+4Q	*Affordable soc rent*							0	0	0	0	0	0	0	0	0	0	0
	Affordable sh oship							0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0
	0							0	0	0	0	0	0	0	0	0	0	0

SITE C CASH FLOW AFFORDABLE

		rate	Year 1 Q1	Q2	Q3	Q4	Year 2 Q1	Q2	Q3	Q4	Year 3 Q1	Q2	Q3	Q4	Year 4 Q1	Q2	Q3	Q4	TOTALS
INCOME																			
Housing sales	*Market housing*		0	0	0	0	0	0	486	486	0	0	0	0	0	0	0	0	972
	Affordable soc rent		0	0	0	0	0	0	14	14	0	0	0	0	0	0	0	0	27
	Affordable sh oship		0	0	0	0	0	0	10	10	0	0	0	0	0	0	0	0	21
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sales fees		0	0	0	0	0	0	-17	-17	0	0	0	0	0	0	0	0	-34
Total income			**0**	**0**	**0**	**0**	**0**	**0**	**510**	**510**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,020**
COSTS																			
Land	*Land acquisition*		168																168
	Stamp duty		2																2
	Purchase fees		5																5
	Total																		**174**
Build costs	*Market housing*		0	0	0	0	209	209	0	0	0	0	0	0	0	0	0	0	419
	Affordable soc rent		0	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0	33
	Affordable sh oship		0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	14
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Build contingency	*2.5%*	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	12
	Total																		**477**
Dev costs	*Upfront*	*6.0%*	7	7	7	7													29
	Build related	*6.0%*	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	0	29
	Abnormals	*0%*	0	0															0
	Total																		**57**
Fees	*Fees on build costs*	*10.0%*	0	0	0	0	24	24	0	0	0	0	0	0	0	0	0	0	48
	Fees on dev costs	*8.0%*	1	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	5
	Total																		**52**
PG	*Planning gain*				6	6	0	0	0	0	0	0	0	0	0	0	0	0	12
	Total																		**12**
Grant	*Grant*				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**0**
Other	*Planning*	*£515*	1	1	1														2
	Survey	*£200*	1																1
	Marketing	*£0*			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total																		**3**
Sales fees	*b/forward from above*		0	0	0	0	0	0	17	17	0	0	0	0	0	0	0	0	**34**
Total costs			**183**	**8**	**30**	**29**	**262**	**262**	**17**	**17**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**810**
Net profit/loss from quarter			**-183**	**-8**	**-30**	**-29**	**-262**	**-262**	**493**	**493**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**210**
Profit/loss bf from last quarter			0	-186	-198	-232	-266	-539	-816	-329	167	167	167	167	167	167	167	167	
Cumulative profit/loss			-183	-195	-228	-262	-529	-801	-323	163	167	167	167	167	167	167	167	167	
Interest	*Charged at*	*7.50%*	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	Total		-3	-4	-4	-5	-10	-15	-6	3	0	0	0	0	0	0	0	0	**-44**
Cumulative developer profit carried forward to RV calc			**-186**	**-198**	**-232**	**-266**	**-539**	**-816**	**-329**	**167**	**167**	**167**	**167**	**167**	**167**	**167**	**167**	**167**	**166**