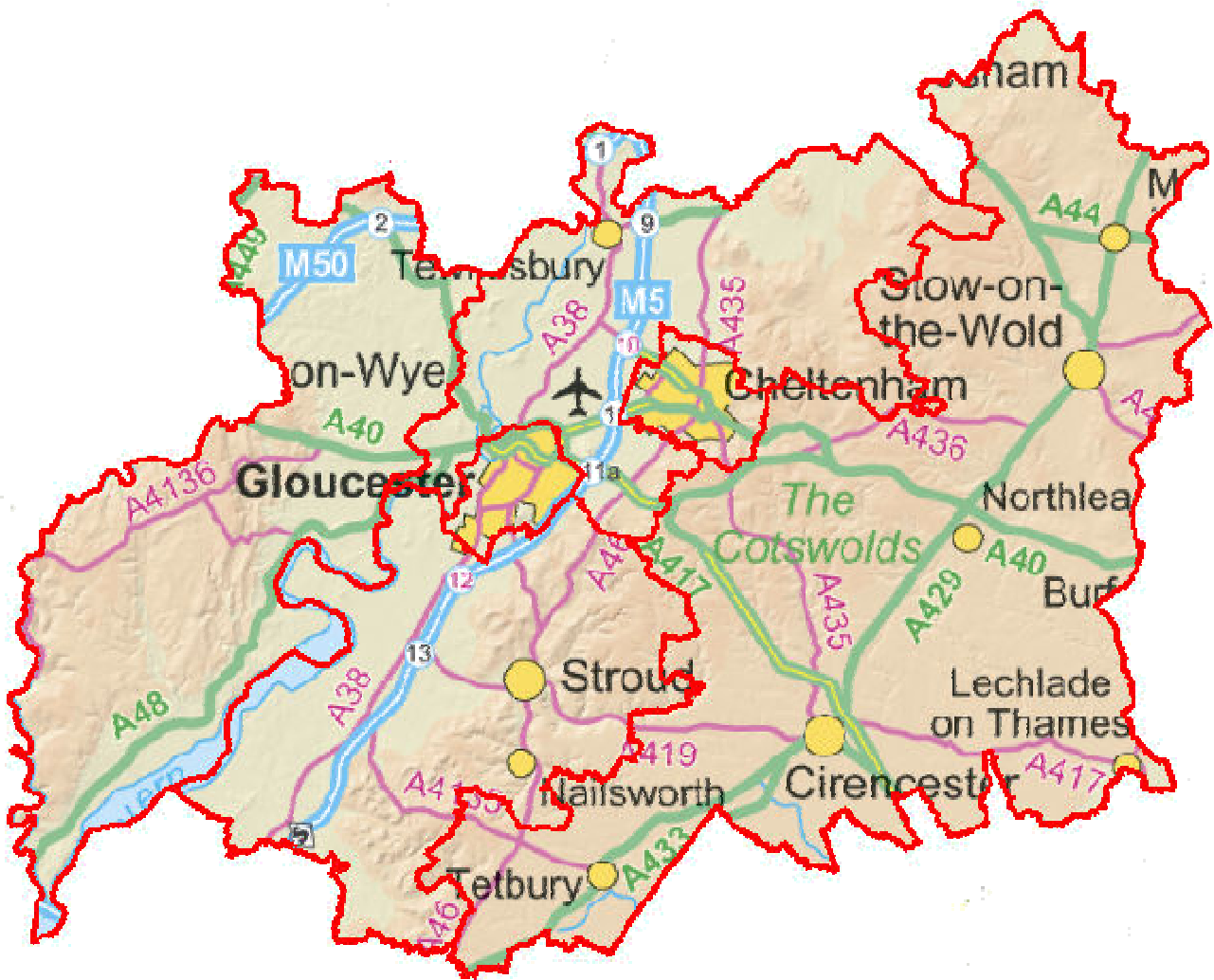


Gloucestershire and Districts

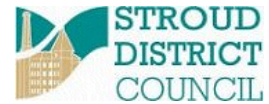
Affordable Housing Site Viability Study





Gloucestershire

COUNTY COUNCIL



Project: Gloucestershire and Districts Affordable Housing Site Viability Study

For and on behalf of Fordham Research Group Ltd

Approved by: Dr Richard Fordham
Managing Director

Status: Final Date: 23rd April 2008

EXECUTIVE SUMMARY

1. Fordham Research Ltd was commissioned by the six Gloucestershire Councils to carry out a study of affordable housing viability in the Gloucestershire Housing Market Area. The study formed part of a wider Strategic Housing Market Assessment for Gloucestershire. It was intended to inform ongoing work on the preparation of Local Development Frameworks, by examining the impact on housing viability of alternative levels of affordable housing requirement.
2. The study involved preparing financial appraisals for a number of actual or proposed housing sites in Gloucestershire. The appraisals were designed to assess the impact on development viability of alternative requirements for affordable housing provision. Viability would be examined for a range of sites in a variety of development situations. A 'modelling' approach was taken, using bespoke spreadsheet software which allowed alternative scenarios to be tested quickly.
3. In discussions with the six Councils we identified a total of 24 sites, in a range of locations, for testing. They ranged in size from 9 to 400 dwellings, and split broadly evenly between sites completed or under construction; sites with permission; and allocations or potential allocations. Two sites were subject to a current application. Three sites were mixed, containing a mixture of residential and commercial uses. The majority of the 24 sites were on previously developed land. In all they provided just over 2,000 dwellings, at an average density of just under 38 dwellings per ha.
4. In formulating development proposals to test for each site, we considered the site characteristics and any detailed development proposals, any Development Brief where such proposals had not yet come forward, and looked at a number of recent development proposals in Gloucestershire. We also drew on experience from elsewhere to develop appropriate notional development mixes for those sites where existing development proposals did not provide an appropriate basis for the appraisals.
5. Gloucestershire is a diverse area with a considerable mixture of development types and situations, urban and rural areas. An urban form that has emerged in many parts of the country post PPG3 provides for a mix of flats, two and 2.5 storey houses. In Gloucestershire this form typically produces a floorspace density of about 15,500 sq ft per acre. There are higher density schemes in larger inner urban areas, especially providing apartments in blocks. There are also rural and urban edge development forms with lower densities, often focusing on larger mainly detached units.

6. Our observation of development forms currently coming forward in Gloucestershire and experience from elsewhere led us to develop a 6 class typology, with floorspace densities ranging from 9,000 to 42,500 sq ft per acre, to inform development assumptions for the 24 sites.
7. The sites were tested with no affordable housing, and for options of 30%, 40% and 50% affordable housing (for Cotswold, whose existing target is 50%, additionally 60%). In each case the affordable housing was assumed to be a combination of 67% social rented and 33% intermediate housing. The intermediate housing was taken to be shared ownership housing at 25% share, with rent charged at 2.75% on the unsold equity.
8. The affordable housing was to be provided on the basis of zero Social Housing Grant. Advice was sought from Councils' partner RSLs about appropriate selling prices with zero grant. We also considered the appropriate levels of planning gain contribution which should be assumed to apply for each of the sites, using a tariff type approach.
9. The local market for residential development was examined. There is a considerable supply of new build housing across the Housing Market Area as a whole. Prices vary quite dramatically within the area, being highest in the Cotswold area and in some parts of Cheltenham, and lowest in parts of Gloucester and much of the Forest. Prices in the cheapest areas are less than half those in the dearest. Taking into account selling prices on schemes across the Market Area we determined price levels for flats and houses on each site. We arrived at a view of likely receipts from the commercial space on the three mixed use sites.
10. We also looked at evidence in respect of land values for likely alternative uses for the sites.
11. We considered assumptions in respect of development costs and the other financial and site assumptions required to carry out appraisals. Abnormal costs were expected to arise on a number of the sites. Appropriate assumptions to determine the building programme for each site were determined.
12. Appraisals for each site were produced in respect of all of the affordable options. They used a bespoke spreadsheet based financial analysis package. The approach was to determine the residual land value, i.e. what value the site would have after taking into account the costs of development, the likely income from sales and/or rents, and an appropriate amount of developer's profit. In order for the proposed development to be viable, the residual value must exceed the value from a valid alternative use.
13. The appraisals showed that with no requirement for affordable housing, the sites delivered land values between about £325k and £1.7 million per acre (£800k-£4.2m per ha). The results were felt to be broadly in line with, if somewhat below, what VOA published data suggested local values for 'oven ready' land would be. The appraisals are therefore felt more likely to present a 'worst case' than to be unduly optimistic.

14. As increasing amounts of affordable housing are introduced, the land value falls away. The majority of sites still achieved a positive land value with the highest requirement (Cotswold 60%, elsewhere 50%). However on some sites, those with highest densities, land value falls away much more quickly as the affordable contribution increases. On such sites the land value, the main source of the affordable contribution, is a much lower proportion of the scheme's total cost. Since land value is the main means of providing 'developer subsidy,' this means that it cannot go as far on high density schemes as with a low density development.
15. Whether each individual option produces a viable outcome will depend on the land value from alternative uses. For the identified sites the alternative use was normally either industrial, agricultural, or open recreational use (playing fields, golf course). Of these industrial use was assumed to have the highest alternative use value, ranging from £380k per acre (£940k per ha) in Cheltenham down to £250k per acre (£620k per ha) in parts of the Forest. Agricultural use was the least valuable at £12k per ha/£5k per acre. Open space was assumed to be worth £75k per acre (£185k per ha).
16. This information, adjusted for any abnormal development costs that would still arise, was used to deduce whether the individual sites were viable at different levels of affordable housing provision. This comparison showed that 19 of the 24 sites could produce 30% affordable housing and remain viable. At 40% four additional sites became unviable; in addition two sites produced a surplus over alternative use value which was felt to be insufficient, and are therefore classed as marginally viable. By 50%, ten sites remained viable, plus two which were marginal.
17. Councils will need to consider these findings carefully in formulating policy targets in emerging Local Development Documents. They suggest that in some parts of the Housing Market Area there is scope for increasing targets from the present levels, whilst in others there is not. The results also suggest that it might be possible to vary targets, either geographically, or as between greenfield sites and previously developed land.
18. Suggested guidance on individual Councils' targets was put forward for Councils to consider. However, the study results were based on cost and price levels as at Q3 2007; as the Report was finalised, in mid 2008, it became clear that a 'credit crunch', though triggered outside the UK housing market, had nevertheless led to a significant market downturn, and to steadily falling prices.
19. Opinions vary as to how long this will continue. Furthermore a more general economic slowdown, now likely, would bring downward pressure on some appraisal elements such as alternative use values and build costs, partly offsetting the adverse impact of price reductions. However we must recognise that for a period of time - possibly short, possibly longer - a given affordable requirement will be more difficult to achieve than the study results indicate. An approach involving regular monitoring and updating is suggested.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
1. INTRODUCTION	1
National guidance	1
Fordham Research Ltd	2
Structure of this report	2
2. INDIVIDUAL DEVELOPMENT SITES	3
Introduction	3
Gloucestershire: a diverse area	3
Identifying a range of sites	4
The individual sites	4
Development assumptions	6
3. AFFORDABLE HOUSING & OTHER DEVELOPER CONTRIBUTIONS	9
Introduction	9
Affordable housing assumptions	9
Other developer contributions	12
4. LOCAL MARKET CONDITIONS	15
Introduction	15
Issues to consider	15
The Residential Market	16
Price assumptions for financial appraisals	18
Commercial floorspace on mixed use sites: appraisal assumptions	19
Land values	19
Current and Alternative Use Values	20
5. ASSUMPTIONS FOR VIABILITY ANALYSIS	23
Introduction	23
Development costs	23
Financial and other appraisal assumptions	25
Site acquisition and disposal costs	27
6. RESULTS OF VIABILITY ANALYSIS	29
Introduction	29
Financial appraisal approach and assumptions	29
Appraisal results:	29
Alternative use benchmarks	31
Comparison results	33
Increased thresholds on two sites	33

Postscript: changes in market conditions	34
7. IMPLICATIONS OF RESULTS	35
Our approach	35
Implications of appraisal results.....	36
Individual Council areas: guidance	37
Cheltenham.....	38
Cotswold	39
Forest of Dean	39
Gloucester.....	39
Stroud.....	40
Tewkesbury.....	40
APPENDICES	41
APPENDIX 1 SITE INFORMATION SCHEDULE	43
APPENDIX 2 DEVELOPER CONTRIBUTIONS MODEL.....	47
APPENDIX 3 NEW BUILD SCHEMES	49
APPENDIX 4 HOUSE PRICE VARIATIONS.....	53
APPENDIX 5 SITE BUILD COST ASSUMPTIONS	57
APPENDIX 6 FINANCIAL APPRAISAL SUMMARIES.....	59

1. INTRODUCTION

- 1.1 Fordham Research Ltd was commissioned by Gloucestershire County Council and Councils for the six Districts in Gloucestershire in July 2007, to produce guidance on the financial viability implications of alternative targets and size thresholds for affordable housing provision within the County area.
- 1.2 This work was part of a wider study, a Strategic Housing Market Assessment (SHMA) for the County area which was being carried out in parallel to develop an understanding of local housing markets in this sub-region, to build a picture of housing needs and requirements, and to suggest appropriate targets for housing provision based on this analysis. The SHMA will provide input into ongoing work on preparation of Local Development Frameworks for each of the Districts.
- 1.3 The viability studies will ensure that advice on targets in the main SHMA is supported by rigorous analysis showing that the targets can be achieved without undermining site viability and imperilling the delivery of housing provision overall.

National guidance

- 1.4 Guidance on affordable housing policy issues is now provided by PPS3.
- 1.5 Whilst from 2000 onwards the earlier guidance PPG3 recognised the need to take into account the economics of development when setting affordable housing targets and negotiating contributions from developers, PPS3 further reinforces this message. It suggests that Local Development Documents should **set an overall target** for the amount of affordable housing to be provided, which should:
- 1.6 *'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)
- 1.7 LDDs should also **set out the range of circumstances** in which affordable housing will be required. The national indicative minimum size threshold is to be 15 dwellings. However, Local Planning Authorities (LPAs) may:

- 1.8 ...'set lower minimum thresholds, where viable and practicable, including in rural areas. This could include setting different proportions of affordable housing to be sought for a series of site-size thresholds over the plan area. LPAs will need to undertake an informed assessment of the economic viability of any thresholds and proportions of affordable housing proposed....' (S29)
- 1.9 The analysis in the present study is designed to be consistent with the above requirements.

Fordham Research Ltd

- 1.10 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 limited affordable housing contribution, for enabling development, and so on.
- 1.11 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. Since that time we have assisted Councils on very many occasions by providing expert witness services at Local Plan and S78 Inquiries, in order to successfully support housing need and affordable housing policies. Particularly in recent years, this has regularly included evidence in respect of viability issues.

Structure of this report

- 1.12 The remainder of the report covers the following topics:

Section 2 - The individual development sites

Section 3 - Affordable housing and developer contributions assumptions

Section 4 - Local market conditions

Section 5 - Assumptions for viability analysis

Section 6 - Results of viability analysis

Section 7 - Implications of viability results

2. INDIVIDUAL DEVELOPMENT SITES

Introduction

- 2.1 This Section 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.
- 2.2 The individual sites chosen were visited at an early stage in the work.

Gloucestershire: a diverse area

- 2.3 The Gloucestershire County area is unusually diverse in terms of development and housing market conditions. It contains two large urban areas, Cheltenham and Gloucester, separated by only a narrow Green Belt. The former enjoys considerably higher average house prices than the latter, which with a traditional industrial and waterside centre is only now regenerating after a period of decline.
- 2.4 Most of the County is made up of two large upland areas, the Cotswolds and Forest of Dean. Both the Forest and the Cotswold escarpment pose particular challenges for development form in some locations. However, in housing market terms the two areas are different; the Cotswolds is an extremely prosperous area with many attractive towns and villages, and consequently continues to attract large numbers of older households, whether retired or anticipating retirement; second home purchasers; and latterly commuters. The Forest, whilst also very attractive in its own way, and experiencing considerable tourist and recreational pressures, is not perceived as nearly so desirable residential location as the Cotswolds, and indeed has significant regeneration issues.
- 2.5 The lower lying area between these two is dominated by the River Severn, and suffered considerably during the period of flooding which commenced as the present study got under way. At this stage it is assumed that the impact of this problem on the housing market is only of short term duration, and will not materially bear in the longer term on the study findings.
- 2.6 The diversity we have described means that the County contains areas of high house prices and housing pressures, in relatively close proximity to other areas where prices and pressures are rather lower. This, and the geography, are reflected in a considerable variety of built form and density. It was necessary for the present study to echo this variety, in the range of sites to be examined and the development assumptions chosen for each site.

Identifying a range of sites

- 2.7 It became clear that for the study to provide the required guidance on viability, it would need to look at sites that were actual rather than notional, and that a considerable number of actual sites would need to be examined in order to provide useful guidance across the Housing Market Area. In discussion with the partner Councils, it was concluded that a total of 24 sites (4 sites per District) would be sufficient, providing that they were carefully selected to cover a range of scheme sizes.
- 2.8 The 24 sites were identified in discussion from a larger initial shortlist. They covered a mixture of settlement sizes, although the great majority were in the larger settlements. The sites ranged in size from 9 to 400 (+) dwellings. A number of the sites involved a mixture of residential and commercial uses. In two cases, existing buildings within the site would be retained, refurbished and converted to residential use.
- 2.9 The final 24 sites were at various stages in the planning process, splitting broadly evenly between sites which were complete or under construction; sites which had received permission, outline or full; and sites which were either allocations, or candidates for allocation. Two sites were subject to a current application, and another was minded to permit.
- 2.10 Information available from the various planning applications was taken into account in considering appropriate development forms in our appraisals. However we also took into account other recent schemes currently being developed, in formulating development assumptions.

The individual sites

- 2.11 Summary details of the 24 sites identified by the Councils are set out in the Table below. A more detailed schedule is provided as Appendix 1.
- 2.12 Please note that, for brevity, a notation has been used to identify the sites. The notation relates sites to individual Districts. It uses firstly a letter corresponding to the initial letter of the Council's name, with one exception:

B =	Cheltenham	C =	Cotswold
F =	Forest of Dean	G =	Gloucester
S =	Stroud	T =	Tewkesbury

- 2.12 Secondly, a digit identifies the individual site within each of the Council areas, as B1.

Table 2.1 Site details

Site No	Name	Area (ha)	No Dwgs	Density (dw/ha)	Status
B1	SE Cent Cheltenham	0.37	27	73.0	Outline permission
B2	Charlton Kings	0.18	12	66.7	Completed
B3	SW Cent Cheltenham	1.25	90	72.0	Allocation
B4	W Cheltenham	2.65	77	29.1	Completed
C1	Chipping Campden	0.60	25	41.7	Allocation
C2	Tetbury	0.50	15	30.0	Allocation
C4	Cirencester	6.40	192	30.0	Potential allocation
C5	Bourton on the Water	2.24	74	33.0	Detailed permission
F2	Woolaston	0.80	22	27.5	Application
F3	Newent	3.90	100	25.6	Minded to permit subj s106
F4	Cinderford	3.00	100	33.3	Permission
F6	Lydney	14.40	400	27.8	Application
G2	NE Cent Gloucester	0.45	14	31.1	Outline permission
G3	S Cent Gloucester	0.69	100	144.9	Proposed allocation
G4	Quedgeley	3.10	30	9.7(*)	Proposed allocation
G5	S Gloucester Canalside	3.00	150	50.0	Proposed allocation
S1	N Cent Stroud	2.50	120	48.0	Under construction
S3	S Cent Stroud	0.44	101	229.5	Permitted
S4	Cainscross	0.32	14	43.8	Detailed permission
S5	Stone	0.94	9	9.6	Detailed permission
T1	Churchdown	1.22	60	49.2	Part complete part under construction
T3	Stoke Orchard	0.69	10	14.5	Under construction
T5	Newtown	0.81	33	40.7	Completed
T6	Tewkesbury	8.00	245	30.6	Under construction
	<i>Total</i>	58.45	2,020	37.8	

NOTE

1. Those sites shown as 0.60 25 are mixed use sites which include a non residential (commercial) land use component
2. Site G4 area shown is gross, including substantial open space: net developable area occupies minority of site.

2.13 The sites as identified sum to 2,020 dwellings, and so collectively represent quite a significant development quantum. Three are mixed use sites, requiring a mixture of residential and commercial uses, although on a couple more the site forms part of a mixed use development. There is an assortment of densities which, excluding the mixed use site S5, range from about 15 to 230 dwellings per ha, with an average of just under 38 dwgs/ha.

- 2.14 The sites were chosen so as to test development viability fully, in a variety of situations across the area. They include rural, suburban and more central urban locations. Whilst a majority of the sites are on previously developed land, six are or were greenfield (agricultural), and a further three in open space/recreational uses.
- 2.15 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.

Development assumptions

- 2.16 In arriving at appropriate assumptions for residential development on each site, the development form in an approved planning application was an important consideration. However we also assessed the information available on other recent development proposals; considered relevant draft planning policies and Development Briefs; and drew on information on current new build developments from our market survey.
- 2.17 This locally derived information was balanced with our experience from a wide variety of development situations in other parts of the country, in order to develop the most appropriate assumptions in relation to development form, for the identified sites. On sites which were not yet subject to current or approved applications, we also had to bear in mind the number of dwellings which the local planning authority envisaged on the site. In a very small number of cases this led us to reconsider the numbers proposed, with conclusions as discussed further at 2.23 below.
- 2.18 In recent years, as development proposals have engaged with the various implications of PPG3, but aided by rising land values, a common development format has emerged for significant sized sites in most larger urban areas in the more prosperous parts of the country at least, but increasingly also in smaller centres. This format provides for a majority of houses (with perhaps 15-30% flats) in a mixture of two storey and 2.5/3 storey form, with some rectangular emphasis to the layout. In Gloucestershire, as in many other areas this would generate a floorspace density of around 15,500 sq ft per acre on a substantial or sensibly shaped smaller site. Typical dwelling density would be 40-45 dwellings per ha.
- 2.19 Alongside this, of course, in many urban locations - and indeed sometimes elsewhere - there have been large numbers of higher density schemes providing largely or wholly apartments, in blocks of 3 storeys and often rather higher. These provide floorspace density from around 30,000 sq ft upwards, at densities of 100 dw/ha plus.

- 2.20 There will be situations where, for planning reasons, on particularly small sites, in rural locations or in a less pressured local market, schemes with densities below this 15,500 sq ft/acre baseline will come forward. Such circumstances will apply to some of the sites in the study. There also appear to be sites where a slightly more intensive built form, but falling somewhat short of 100% apartment provision, will apply.
- 2.21 These observations, taken together with the available information we collected on actual development proposals, suggest a built form typology for the Gloucestershire development situation, as set out in the Table below. We would stress that the short titles for the categories have been adopted for convenience only and should not be taken to imply anything specific about where or when they might apply.

Table 2.2 Typology of development form

Category title	Density		Built form characteristics
	Floorspace (net sq ft/acre)	Dwellings (typical dw/ha)	
Rural	9,000	12-20	Low density less pressured, or very sensitive, rural location. Large 2 storey detached dwellings with double garages & substantial gardens
Edge	12,500	24-33	Edge of settlement, less pressured location. Mostly 2 storey, 3 & 4 bed detached houses with garages. On site open space provision included.
Base	15,500	40-45	Mixture of 2 & 2.5/3 storey houses, many terraced; some (15-25%) flats, limited garaging. Nominal open space provision
Urban	19,000	45-60	Mixture of 3 storey flats (c 30-35%) and town houses. Normally no significant open space.
High	31,000	95-125	Three storey flats in small blocks, parking spaces
Very high	42,500	125-200	Mainly four storey apartment blocks, surface level parking provision

- 2.22 The above typology was used to inform development assumptions for all 24 of the identified Gloucestershire sites. In many cases the figures as they stood were felt to be appropriate and often conformed quite closely, on sites with permissions, with the proposals which had been approved or indeed built out. In other cases the figures had to be adapted slightly, e.g. to reflect the inclusion or omission of open space provision, or other particular aspects of the planning framework. In two cases, both mixed use schemes, the site and scheme characteristics were sufficiently unique to invalidate the typology. In those cases (sites S3 & S5) bespoke development assumptions based upon the actual development proposals were used.

2.23 The table below sets out the key assumptions for residential development for each of the 24 sites in the study. In two instances (sites F6 & G4) dwelling numbers were increased slightly to produce what we considered a more realistic floorspace density and/or size mix.

Table 2.3 Site development assumptions					
Site no	Category	Net sq ft/acre	No of dwgs	Ave dwg net sq ft	Background
B1	Urban	19,000	27	643	-
B2	Urban/high	27,000	12	1,001	Adjusted to reflect scheme
B3	High/urban	27,000	90	927	Some town houses
B4	Base	15,500	77	1,119	Open space excluded
C1 (M)	Urban	19,000	25	920	Density includes non resid space
C2	Base	15,500	15	1,277	-
C4	Edge	12,500	150	1,133	Allowance for on site OS
C5	Edge	12,000	74	898	Allowance for on site OS
F2	Edge	10,500	22	943	Awkwardly shaped site, scheme
F3	Edge	12,500	100	1,205	Allowance for on site OS/drainage
F4	Base	15,500	100	1,149	
F6	Edge	12,500	450	988	Dwg nos increased to balance mix
G2	Base	15,500	14	1,231	-
G3	V high	42,500	100	725	-
G4	Edge	13,500	35	1,112	Dwg nos increased to balance mix
G5	Base	15,500	150	766	-
S1	Urban	18,000	120	927	Reflects scheme and site conditions
S3 (M)	Unique	91,000	105	535	Based on scheme
S4	Base	15,500	14	875	-
S5 (M)	Unique	6,500	9+	1,129	Based on scheme
T1	Urban	19,000	60	955	Based on Ph 2 scheme
T3	Rural	9,000	10	1,534	-
T5	Urban	19,000	33	839	Allowance for on site OS
T6	Edge	12,500	255	1,008	Supported housing site assumed developed as conventional housing

Note (M) signifies a mixed use site

3. AFFORDABLE HOUSING & OTHER DEVELOPER CONTRIBUTIONS

Introduction

3.1 This Section 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 which involved 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.

3.3 The approach to seeking affordable housing will inevitably vary in detail between individual Councils, reflecting its historical evolution, local choices and circumstances, and so on. However, in order to reduce the appraisal work (and results) to a manageable task, a single common approach was assumed to apply across the whole of the study area, and for all sites. The use of a common approach is consistent with the overview perspective provided in a SHMA. The differences in approach are not very great, and it is not felt that the use of a common approach will undermine the validity of the appraisal results.

(i) Tenure proportions

3.4 Following discussions with the six Councils we tested the following options:

- **NO** affordable housing
- 30% affordable - all six areas
- 40% affordable - all six areas
- 50% affordable - all six areas
- 60% affordable - Cotswold sites only

3.5 The six Councils currently operate policies seeking affordable housing proportions of between 30% (Stroud, Tewkesbury) and 50% (Cotswold). However higher proportions might be proposed in emerging Local Development Framework Documents as a result of the Strategic Housing Market Assessment for Gloucestershire of which the present study forms a part.

(ii) Tenure split

3.6 All the six Councils currently seek a balance of social rented and intermediate housing, mostly as a majority of social rented housing, although Stroud and Tewkesbury seek their 30% affordable contribution on a 50/50 basis. After discussion and consideration, all the affordable target options were tested as a 67/33 split between social rented and intermediate housing. (This is close to the Housing Corporation guidance split of 70/30, exclusive of Open Market HomeBuy). The resulting four options, Options A to D, as summarised below.

Table 3.1 Affordable housing options		
Option	% affordable	% soc rented/% intermediate
NO affordable housing	-	-
Option A	30% affordable	67%/33%
Option B	40% affordable	67%/33%
Option C	50% affordable	67%/33%
Option D	60% affordable	67%/33%

3.7 In principle intermediate tenure could constitute a wide range of different housing propositions. To avoid testing an overly large number of different options it was initially decided to consider 25% & 50% shared ownership, with rent levels set at 2.75% of the unsold equity. However, as work on our study and on the parallel Strategic Housing Market Assessment progressed, it appeared that, 25% shared ownership would broadly equate with the County wide affordability level for intermediate housing emerging in the SHMA's analysis.

3.8 We therefore focused on the 25% option in preparing appraisals. In fact, Cotswold District Council normally accepts a 50% share, but constrains rent levels in order to achieve an affordable product. Our analysis suggests that this approach produces broadly similar levels of outgoings to the assumptions described above.

(iii) Size profile

3.9 The six Councils seek a wide range of different preferred bedroom profiles for affordable housing provision. This militated against applying a single preferred mix profile across all the sites. Neither was it felt to be practical to seek to achieve each individual Council's separate preferred profile overall across its own four sites.

3.10 Instead, we assumed that on each site the mix of affordable housing should normally match the market housing. This assumption also ensured that as the affordable housing proportion varied between the options being tested, the floorspace density remained constant - a desirable aim if the appraisals were consistently to constitute a realistic development scenario.

(iv) Financial terms

3.11 It was agreed that appraisals should be prepared assuming zero availability for Social Housing Grant. This has become a common starting point or default position for exercises of this kind, though by no means a universal one.

3.12 It was necessary to seek advice from the Councils' partner RSLs about the terms on which properties of various sizes, would be purchased from the developer in order to achieve the 'zero grant' scenario. We originally sought information from Bromford, Gloucestershire, Guinness, Sanctuary, Severn Vale & Two Rivers in respect of social rented housing; and for 25% (and 50%) shared ownership, provided at rent levels of 2.75% on the unsold equity.

3.13 Probably because of pressures on bid preparation work, the initial response from RSLs was somewhat limited and a subsequent request produced responses from four of the RSLs, with where felt to provide sufficient coverage across the six District areas. The figures showed some variations in estimated 'offer prices' for affordable dwellings on the basis described above. Such variations could, in practice, result from a number of factors, including variations in estimated open market value, geographical or otherwise, and perhaps also in the organisations' assumed level of contribution to the development from reserves. Given the pattern of the RSL data it was felt appropriate to take an average of the figures provided.

3.14 These averages then formed a basis for estimating overall £ per sq ft figures for flats and houses in the six Council areas under zero SHG as shown in Table 3.2.

Table 3.2 Selling prices: zero grant basis				
	£ per sq ft (sq m)			
	Social rented		Shared ownership	
	Flat	House	Flat	House
Cheltenham	84 (904)	78 (839)	133 (1,431)	134 (1,442)
Cotswold	83 (893)	79 (850)	123 (1,323)	131 (1,410)
Forest of Dean	83 (893)	78 (839)	84 (904)	98 (1,054)
Gloucester	80 (861)	69 (742)	119 (1,280)	115 (1,237)
Stroud	81 (872)	73 (785)	122 (1,313)	120 (1,291)
Tewkesbury	71 (764)	69 (742)	113 (1,216)	118 (1,270)

Source: data from RSLs

Other developer contributions

- 3.15 Aside from affordable housing, developer contributions could potentially be sought by the District and County Councils under a number of headings.
- 3.16 In order to determine the appropriate assumptions to make for each of the sites it was necessary to take a 'modelling' approach. There were a large number of quite diverse sites to consider, and whilst the County elements should in principle be common, each of the six Districts had their own policies, protocol and arrangements for determining the nature and hence cost of any developer contributions, whether provided in kind or as a financial payment. There were often gaps in coverage.
- 3.17 Furthermore, many items would, or should, be impact-related and/or site specific. Traffic contributions, for instance, would, in most cases, reflect the unique circumstances of each set of proposals and location; education contributions should normally only arise if there was insufficient spare capacity within existing local schools. Carrying out the detailed assessment required to determine the appropriate contribution for each of the 24 sites was beyond the scope of the study.
- 3.18 Our modelling involved the use of a tariff style approach, determining an appropriate per dwelling contribution for sites of different sizes, recognising that as site size declines, as size thresholds are reached and impacts reach a *de minimis* or unmeasurable level, some individual contribution components will cease to apply. Our approach was based on:
- pooling the available information about District and County contribution requirements where these were known;
 - looking at the contributions secured on a number of recently agreed schemes; and
 - the firm's considerable experience over a number of years from assessing developer contributions requirements for Councils in respect of major residential projects.

- 3.19 The modelling exercise is set out in Appendix 2. The figures in this schedule should not be regarded as in any sense definitive. This is simply a way of arriving at a plausible £ per dwelling taper scenario, using a combination of known information (e.g. County Education & Library contributions) and estimated elements where no information was available. After rounding it leads to per dwelling allowances as set out in Table 3.3.

Table 3.3 Developer contributions	
Site size	Contribution
No of dwgs	£ per dwg
400+	£14,500
250	£14,000
150	£13,250
100	£12,500
75	£12,000
50	£11,500
25	£8,750
15	£8,000
5	£7,750

- 3.20 It must be emphasised that these figures are simply assumptions designed to treat the 24 sites consistently and equitably, for the purposes of preparing financial appraisals across the six Council areas. They assume that there is little or no spare capacity in existing infrastructure, and should really be regarded as a 'worst case' scenario for the purposes of exploring financial viability.
- 3.21 The figures cannot be assumed to reflect the contributions that would arise in practice, or which have actually been achieved, on the study sites, either in amount or topic coverage. These will depend on the current (or historic) policies and approach of each Council, and indeed on the outcome of the negotiation process. To give an example, two of the Stroud sites would be expected to contribute to restoration of the Stroudwater Canal. This might well replace a more conventional open space or recreation contribution.

4. LOCAL MARKET CONDITIONS

Introduction

- 4.1 This Section sets out an assessment of the local housing market in Gloucestershire, providing a basis for the assumptions on house prices and costs to be used in financial appraisals for the 24 sites 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 Gloucestershire 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/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 very significant value variations in different parts of Gloucestershire.
- 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. 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 Gloucestershire, to some extent, reflects national trends but there are local factors in Gloucestershire and its environs that underpin the market including;
- Considerable residential pressures in and adjoining the Cotswolds - an extensive area of high landscape and building quality in which significant planning restraint is exercised, but which is nevertheless an area much sought after by relocating movers, particularly households in or approaching retirement, but also commuters to Swindon, Oxford and London.
 - Regeneration needs in the Forest of Dean, a contrasting area of landscape quality and of historic industrial importance, located to the west and somewhat isolated from the rest of the County area by the Severn River and Estuary.
 - The gradual regeneration of Gloucester, with its large waterside area and industrial legacy
 - The townscape of Cheltenham reflecting its historical heritage and character
 - Significant pressures in the rural south of the County from the Bristol conurbation, which lies only a short distance south.
 - Good communications links in several directions. Links are less good though in other directions (e.g. relatively poor towards London, except via M4).
- 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 some relevant new developments in each of the six areas, as at late summer 2007, is provided in Appendix 3.
- 4.10 Analysis of these, and other schemes in Gloucestershire, shows that prices for new build homes vary quite widely across the County, ranging between approximately £170 and £350 per square foot (£1,830 - £3,750 per square metre). This is the range for individual properties; averaged over the complete scheme the degree of variation will of course be somewhat less than this. However it is clear that the price per sq ft will vary considerably between the 24 sites in the study. (As in other parts of the country, the smaller units and apartments in particular show a price premium per square foot compared to larger houses).
- 4.11 Land Registry data confirms that there are significant variations in house prices across the area. Table 4.1 shows average prices for the six Council areas. It shows that, on average, prices are highest in Cheltenham & Cotswold, lowest in the Forest & Gloucester, and at an intermediate level in Stroud & Tewkesbury.
- 4.12 Although the Land Registry data covers both second hand and new build prices, the former will predominate. The average prices in the Table are compared to a corresponding England & Wales figure and expressed as indices;

Table 4.1 Average house prices by Council area Q2 2007					
Area		Ave price (£k & % index)			
		Detached	Semi	Terrace	Flat
Cheltenham	£k	£473.0	£246.4	£212.6	£160.7
	index	157%	132%	132%	116%
Cotswold	£k	£465.2	£299.5	£225.1	£159.2
	index	154%	160%	139%	115%
Forest of Dean	£k	£278.2	£175.3	£146.5	£113.0
	index	92%	94%	91%	81%
Gloucester	£k	£248.7	£169.9	£143.3	£127.4
	index	82%	91%	89%	92%
Stroud	£k	£377.4	£210.1	£178.4	£145.3
	index	125%	112%	111%	105%
Tewkesbury	£k	£317.1	£206.6	£170.9	£126.8
	index	105%	111%	106%	91%

Source Land Registry data.

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

- 4.13 However it is also clear that within a Council area there are considerable variations in price, as large as those between Councils. 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 two separate quarters (Q2 2007 & Q4 2006). The data has been expressed as an index – as a percentage of the Gloucestershire wide average - and standardised, to allow for variations in type mix. (Appendix 4 provides a worked example of the index calculation, and sets out the resulting price index figures for the two quarters examined).
- 4.14 It can be seen that variations between the two quarters' indices are in most cases relatively slight. They are greater for rural areas and town centres, which are mostly numerically smaller and more diverse, than for urban areas generally, which are larger and often more uniform.
- 4.15 The figures show quite clearly that second hand prices in the Cotswolds uplands and escarpment and some parts of Cheltenham are well above the average, and much of the Forest and Gloucester but also parts of Cheltenham and Tewkesbury, well below average. Prices in Lydney and Cinderford are the lowest, at around 70% of the Gloucestershire average. In several parts of the Cotswolds they are more than double this level.

Price assumptions for financial appraisals

- 4.16 It is necessary to form a view about the appropriate prices for the 24 individual schemes to be appraised in the study. The information suggests quite clearly that there is going to be a significant variation in selling prices between these schemes. It is also clear that we must allow for differences between apartments and houses, particularly in locations where flats are going to be attractive. Finally, in drawing on the new build price data we have to bear in mind that the prices at which homes are offered can sometimes include appreciable discounts, such as deposit paid for first time purchasers, or stamp duty. Discounts can be particularly significant at the very end of the scheme's life when only one or two units are left unsold; however such 'bargains' cannot form a basis for selling prices across the whole scheme .
- 4.17 Taking these points into consideration we arrived at a set of sale prices for flats and for houses on each of the 24 sites. The two were then combined on the basis of the proportions of flats and houses in each scheme, to produce a single composite average price. The resulting figures are set out in Table 4.2 below.

Table 4.2 Price bands					
	Price £ per			Price £ per	
	Sq ft	Sq m		Sq ft	Sq m
B1	280	3,012	G2	220	2,367
B2	257	2,765	G3	225	2,421
B3	267	2,873	G4	200	2,152
B4	210	2,260	G5	228	2,453
C1 (M)	325	3,497	S1	223	2,399
C2	267	2,873	S3 (M)	250	2,690
C4	297	3,196	S4	217	2,335
C5	276	2,970	S5 (M)	265	2,851
F2	220	2,367	T1	216	2,324
F3	221	2,378	T3	250	2,690
F4	182	1,958	T5	213	2,292
F6	201	2,163	T6	206	2,217

Source: assessment based on market prices as at September 2007

- 4.18 The figures cover a range from £182 per sq ft in Cinderford, to £325 in Chipping Campden. This is a little less than the spread of over 2:1 which we saw in the Land Registry data for second hand prices.
- 4.19 It is necessary to consider whether the presence of affordable housing would have a discernible impact on sales prices. In fact affordable housing will be present on many of the sites whose selling prices have informed our analysis. Our view is that in any case any impact can and should be minimised through an appropriate quality design solution.

Commercial floorspace on mixed use sites: appraisal assumptions

- 4.20 The appraisals for the three mixed use sites require appropriate assumptions for rents and yields in relation to office space in Stroud (S3), a public house at Stone (S5), and retail use (C1 at Chipping Campden).
- 4.21 Office rents in the Stroud area are relatively low. The permitted scheme at C3 will create a considerable amount of floorspace in an attractive position immediately adjoining the town centre, and convenient for the railway station.
- 4.22 The other two sites' commercial uses are to a great extent unique to their location, and more difficult to assess in a study of this nature. One could argue that commercial uses would not be included in planning proposals unless they were seen as likely to provide an outcome at least as favourable as residential development. On the other hand, a view of potential rent levels and yields would suggest that any premium for the commercial space would be relatively marginal.
- 4.23 Taking C1 as an example, whilst Chipping Campden is an extremely attractive location and clearly a popular port of call for tourists, the trade is seasonal and the ability of retail facilities along the High Street to attract significant spend appears relatively limited. The existing retail premises within the site in a converted warehouse type building, do not appear to be particularly well frequented. Rents of much over £20 per sq ft or yields much under 7% seem unlikely. We have fixed upon a sale value of around £335 per sq ft. This is marginally above the residential £325 (there could also be a slight saving on build cost) and would perhaps reflect a rent of £22-£22.50 and yield of 6.5%-6.75%.
- 4.24 At Stone a corresponding case applies, and we will assume that the value of the pub floorspace is a little higher than the residential space figure of £250, perhaps £300 per sq ft.

Land values

- 4.25 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.
- 4.26 The VOA figures for residential land published in the Property Market Report cover the South West Region as a whole, and major towns such as Gloucester and Bristol, or Worcester just to the north.

- 4.27 These values can only provide broad guidance because it is possible that they incorporate, to some degree, allowances for developer contributions and/or affordable housing requirements. They can therefore be only indicative, and it may be that values for ‘oven ready’ land with no affordable provision or other contribution, or servicing requirement, are in fact a little higher.

Table 4.3 Residential Land Values			
Area	Land Value £m per acre (hectare)		
	Small sites	Bulk sites	Land for apartments
South West Region	£1.20m (£2.97m)	£1.04m (£2.56m)	£1.39m (£3.44m)
Gloucester	£1.34m (£3.25m)	£1.22m (£3.0m)	£1.56m (£3.85m)
Worcester	£1.30m (£3.20m)	£1.01m (£2.50m)	£1.38m (£3.40m)

Source: VOA Property Market Report January 2007

- 4.28 The figures suggest ‘oven ready’ land values of around £1.2-3m per acre for sites in Gloucester, and just a little more for apartment schemes. We can expect land values in the more expensive parts of the Housing Market Area to be quite a bit higher than this, and in the cheapest parts – like some parts of the Forest – to be significantly lower.

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 so, for example, as residential 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. Our ‘model’ approach is outlined below.

1. For sites previously in agricultural use, then agricultural land represents the existing use value.
2. Where the development is on former industrial 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.
3. Several sites have been in use as Open Space in some form; School or private sports fields, a Golf Course and so on. Such land is going to have a value to the occupants at least, which is somewhat greater than agricultural. However it has not acquired the significant status it would gain as previously developed land.
4. All but three of the sites are felt to fall fairly clearly into one of the above three categories. The Central Cheltenham site, B3, may have a higher alternative office use value. Site C1 is an established garage, with adjoining residential commercial and retail uses. The S5 site at Stone, whilst in principle having some commercial potential, appears to have operated unsuccessfully as a Hotel. After consideration we concluded that for the first two of these sites the industrial use land value should be used initially for benchmarking the appraisal figures, and the scope for a higher figure revisited when interpreting the results.

4.32 The VOA's typical industrial land values for the region and nearby towns are set out in the Table below. As previously there is no data specifically for Gloucestershire.

Table 4.4 Industrial Land Values			
Area	Land Value per acre (hectare)		
	Low	High	Typical
South West Region	£105k (£260k)	£545k (£1,350k)	£280k (£694k)
Gloucester	£285k (£700k)	£395k (£975k)	£350k (£865k)
Swindon	£305k (£750k)	£525k (£1,300k)	£445k (£1,100k)
Bristol	£305k (£750k)	£445k (£1,100k)	£375k (£925k)

Source: VOA Property Market Report January 2007

4.33 Gloucester has figures ranging from £285k-£395k per acre. Land prices are just a little less than in Bristol. There are no figures for other locations; however there is a suggestion that industrial land supply is a little more constrained in Cheltenham than in Gloucester or Tewkesbury.

- 4.34 Following further discussions and having looked at current land availability we have taken the view that an appropriate industrial land value in Gloucester would be £370k per acre (£915k per ha), with a slightly higher figure of £380k (£940k) for Cheltenham. The value will fall away to some extent in other locations; we have adopted a figure of £345 (£850k) for Tewkesbury, and a slightly lower figure again (£320k/£790k) for the Stroud area (and including Stone). This figure has also been taken for the Cotswolds, although some parts of this area are felt to be relatively remote. The Forest area has a considerable availability of industrial land, and prices are lower there; a figure of £250 (£620 per ha) is felt to be quite adequate for the Cinderford and Woolaston sites.
- 4.35 Agricultural values are around £10-15k per hectare depending upon the specific use. A benchmark of £5k per acre is assumed to apply here.
- 4.36 Some consideration has been given to the appropriate open space/sports field value. There is of course in reality no 'going rate' for land in this category. Asking prices for Golf Course land are really very low unless substantial additional facilities are included – typical prices are no more than £10k-25k per acre (£25-60k per ha). However successful facilities will presumably be valued more highly than this by their owners or membership. We have taken the view that £75k per acre (£185k per ha) would be an appropriate threshold figure for this category.
- 4.37 The proposals outlined above lead to results as summarised in the Table below.

Table 4.4 Alternative Use Values				
<i>Agricultural</i>	<i>Open space</i>	<i>Industrial</i>		<i>Industrial (provisional)</i>
C4	B4	B1	G5	B3
C5	F6	B2	S1	C1
F3	G2	C2	S3	S5
T3	G4	F2	S4	
T6	T5	F4	T1	
		G3		

- 4.38 It was noted earlier that some of the 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 industrial use. The alternative use value would need to be reduced to allow for those costs that would arise in that situation.
- 4.39 The costs arising from development/redevelopment of the 24 Gloucestershire sites are considered in the next Section, 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 Section considers the costs and other assumptions required to produce financial appraisals for individual sites in Gloucestershire.

Development costs

(i) Construction 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 v houses; number of storeys). Drawing on these cost figures we drew up appropriate cost levels for constructing market housing in Gloucestershire. At a base date of August 2007, figures are derived for constructing market housing for the five built forms are as set out in the Table below.

Table 5.1 Construction costs						
Built form	Build cost £ per sq ft/(m)					
	Normal spec		Higher spec		Very high spec	
	sq ft	sq m	sq ft	sq m	sq ft	sq m
Rural & Edge	74	(796)	78	(839)	82.50	(888)
Base	78.50	(845)	82.50	(888)	86.50	(931)
Urban	80	(860)	84	(904)	88	(947)
High	90	(968)	95	(1,022)	100	(1,076)
Very high	93	(1,001)	98	(1,054)	103	(1,108)

Source: Fordham Research derived from analysis of BCIS cost data

5.3 These figures formed a basis for appropriate build cost figures for market housing on each of the 24 sites, being adapted or adjusted to reflect the particular characteristics of each site. The schedule in Appendix 5 provides a complete list of the costs for each site and a brief explanation for any adjustment.

5.4 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 have taken 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 mean that for conventional schemes of houses at least, it is probably no longer appropriate to assume a reduced build cost.

(ii) Other normal development costs

5.5 In addition to the per sq ft 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 would really require a design/layout for each site.

5.6 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 are also more likely to require substantial expenditure on bringing mains services to the site.

5.7 In the light of these considerations we have developed a scale of allowances ranging from 17.5% of build costs for the largest greenfield site, at Lydney, down to 9% or less for a number of the smaller infill sites. The Appendix 5 schedule sets out the individual site assumptions.

(iii) Abnormal development costs

5.8 The majority of the sites are on previously developed land. On a number of sites, from the information made available to us, and also arising from visits to the sites, it appears that exceptional or abnormal development costs would need to be taken into account in preparing appraisals. As pointed out in the previous Section (4.38) some abnormal costs would also arise in the event of the site's redevelopment with an alternative use.

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

Table 5.2 Abnormal development costs

No	Site	Item	Residential	Industrial	
			Cost £k	Cost £k	£k per acre
B2	Charlton Kings	Petrol Filling Station	£50k	£50k	£110k
B3	SW Central	Demolish large buildings	£100k	n/app	-
C1	Chipping Campden	Tight site	£100k	£100k	£65k
C2	Tetbury	PFS plus	£100k	£50k	£40k
F4	Cinderford	Contamination	£100k	-	-
G4	Quedgeley	Open space works	£75k	-	-
S1	N Cent Stroud	Levels	£100k	-	-
S3	S Cent Stroud	Complex scheme, land, levels, tight site	£900k	£150k	£135k

5.10 The table also shows where applicable the adjustment needed to ensure that an alternative land value reflects the costs incurred in developing an alternative use.

(iii) Fees

5.11 We have assumed professional fees amount to between 9% & 11% of build costs, with the higher figures applying for complex schemes or in locations of high design sensitivity. Fees on infrastructure works use a lower figure of 8%.

(iv) Contingency

5.12 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.

Financial and other appraisal assumptions

(i) VAT

5.13 For simplicity it has been assumed throughout that VAT either does not arise, or that its effect can be ignored.

(ii) Interest rate

5.14 Our appraisals assume 8.25% pa (Bank Rate autumn 2007 plus 2.5%) for interest on both outgoings and receipts. The latter would in practice only arise for a short period at the end of the scheme

(iii) Developers profit

5.15 We normally assume that the developer requires a return of 20% on Total Costs (or 16.7% of the Net Development Value) 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.

5.16 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 the wide range of affordable provision being tested, from 0% - 60%, 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. It should be noted that residential developers commonly use a more conservative profit margin of 15% on income, which equates to about 17.5% on costs.

Table 5.3 Profit margins	
% affordable	Profit % on costs
0%	20%
30%	18.5%
40%	18%
50%	17.5%
60%	17%

(iv) Void

5.17 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 large 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. For the purpose of the present study a 3 month void period is assumed for all sites.

(v) Phasing & timetable

5.18 The appraisals are assumed to have been prepared using prices and costs at a base date of August 2007, with an immediate start on site. A pre construction period of 6 months is assumed for most sites but it is extended to 9 months in a couple of the most complex cases. Dwellings are built over a 12 month period.

- 5.19 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 5.4 below.

Table 5.4 Market pace assumptions			
	<i>Site</i>	<i>No of dwgs</i>	<i>Ceiling level of completions per qtr</i>
S5	Stone	9	4
T3	Stoke Orchard	10	5
B2	Charlton Kings	12	5
G2	NE Central Gloucester	14	7
S4	Cainscross	14	7
C2	Tetbury	15	7
F2	Woolaston	22	8
C1	Chipping Campden	25	8
B1	SE Cent Cheltenham	27	9
T5	Newtown	33	10
G4	Quedgeley	35	10
T1	Churchdown	60	12
C5	Bourton on the Water	74	13
B4	W Cheltenham	77	13
F3	Newent	100	15
F4	Cinderford	100	15
S	N Cent Stroud	120	15
B3	SW Cent Cheltenham	90	{ built in phases
G3	S Central Gloucester	100	{ typically 30-40
S3	S Cent Stroud	105	{ dwgs per qtr
G5	Hempsted	150	20
C4	Cirencester	192	20
T6	Tewkesbury	255	20
F6	Lydney	450	20

Site acquisition and disposal costs

(i) Site holding costs and receipts

- 5.20 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

5.21 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

5.22 For the market housing, sales/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 as sales costs for this housing should not normally arise: we have assumed total allowances of 0.5% for social rented housing.

6. RESULTS OF VIABILITY ANALYSIS

Introduction

6.1 This Section 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 Section 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 resulting valuation is commonly expressed in £s per hectare (or acre). 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, today an increasing proportion of sites that come forward will have been previously developed, and therefore may have a more substantial existing or competing alternative use value.

6.4 As outlined in Section 3, our appraisals considered up to five options for the amount and type of affordable housing provision, assuming that shared ownership was provided at a 25% share.

Appraisal results:

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

6.6 Detailed appraisal printouts for all the sites are provided as Appendix 6 to this report. To keep to a manageable document, only the 30% option has been provided.

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

Table 6.1 Appraisal results for five affordable options

Zero grant: shared o'ship at 25% share

No	Site	Residual value £k per acre for affordable option:				
		No aff	A 30%	B 40%	C 50%	D 60%
B1	<i>SE Cent Cheltenham</i>	1,180	553	342	128	-
B2	<i>Charlton Kings</i>	1,719	950	683	423	-
B3	<i>SW Cent Cheltenham</i>	1,646	845	573	290	-
B4	<i>W Cheltenham</i>	601	339	250	161	-
C1	<i>Chipping Campden</i>	1,667	1,027	809	591	369
C2	<i>Tetbury</i>	1,129	646	483	321	156
C4	<i>Cirencester</i>	1,076	636	488	337	186
C5	<i>Bourton on the Water</i>	1,006	617	486	354	219
F2	<i>Woolaston</i>	590	331	245	155	-
F3	<i>Newent</i>	854	437	297	154	-
F4	<i>Cinderford</i>	327	64	(-27)	(-120)	-
F6	<i>Lydney</i>	381	158	83	7	-
G2	<i>NE Cent Gloucester</i>	959	571	443	309	-
G3	<i>S Cent Gloucester</i>	756	(-307)	(-677)	(-1,050)	-
G4	<i>Quedgeley</i>	563	292	200	108	-
G5	<i>Canalside</i>	702	319	189	59	-
S1	<i>N Cent Stroud</i>	739	319	176	34	-
S3	<i>S Cent Stroud</i>	829	(-508)	(-1,025)	(-1,506)	-
S4	<i>Cainscross</i>	795	436	316	190	-
S5	<i>Stone</i>	605	472	427	382	-
T1	<i>Churchdown</i>	878	431	279	127	-
T3	<i>Stoke Orchard</i>	713	437	344	252	-
T5	<i>Newtown</i>	662	327	216	102	-
T6	<i>Tewkesbury</i>	453	193	105	17	-

6.8 Table 6.1 shows that with no requirement for affordable housing the sites deliver a wide range of residual land values, ranging from around £325k per acre (£800k per ha) to just over £1.7m per acre (£4.2m per ha). In fact they split into four bands, with:

- half the sites in a band ranged either side of the median value of £775k per acre (£1.9m per ha)
- a lower range of about £325k-£550k per acre (£800k-£1.36m per ha)
- an upper band from about £950k-£1.2m per acre (£2.35m-£2.95m)
- a top band of three significantly more valuable sites at around £1.65-1.7m per acre (£4.2m per ha)

6.9 After adjusting for additional development costs and our planning gain assumptions, prices in the central band are felt to be broadly consistent with what the VOA figures might suggest as the starting point for 'oven ready' land in Gloucester, though probably still a little on the low side.

- 6.10 Table 6.1 confirms that, as increasing amounts of affordable housing are introduced, the land value falls away. In each case the impact is progressive, but at a broadly linear rate. For a substantial majority of the schemes the highest rate (60% in Cotswold; 50% elsewhere) still delivers a positive land value, albeit in some cases a low one.
- 6.11 However, it is clear that land value falls away much more quickly for some schemes, than for others. It is the most densely developed sites where affordable housing has the greatest negative impact upon land value. This is because the land value is the primary source of any developer subsidy. With the high density schemes, land value is a much lower proportion of the total value of the development, and is therefore used up more quickly. To put it another way, broadly the same amount of land value is available to subsidise affordable units on a scheme of 120 flats on 1 hectare, as on 35 houses occupying the same land. Clearly, that sum will 'buy' a higher percentage of the houses, than of the flats.
- 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 By comparing the results from Table 6.1 with the alternative use values identified in Section 4 (adjusted as necessary for abnormal costs), we can form a view about the likely viability of the affordable options for each site. It is set out below.

Table 6.2 Appraisal outcomes						
No	Site	Alt use value	Value £k per acre			
			A 30%	B 40%	C 50%	D 60%
B1	SE Cent Cheltenham	380	553 VIABLE	342 NOT VIABLE	128 NOT VIABLE	-
B2	Charlton Kings	270	950 VIABLE	683 VIABLE	423 VIABLE	-
B3	SW Cent Cheltenham	380	845 VIABLE	573 VIABLE	299 NOT VIABLE	-
B4	W Cheltenham	75	339 VIABLE	250 VIABLE	161 VIABLE	-

Table 6.2 (continued) Appraisal outcomes						
C1	Chipping Campden	255	1,027 VIABLE	809 VIABLE	591 VIABLE	369 VIABLE
C2	Tetbury	280	646 VIABLE	483 VIABLE	321 VIABLE	156 NOT VIABLE
C4	Cirencester	5	636 VIABLE	488 VIABLE	337 VIABLE	186 VIABLE
C5	Bourton on the Water	5	617 VIABLE	486 VIABLE	354 VIABLE	219 VIABLE
F2	Woolaston	250	331 VIABLE	245 NOT VIABLE	155 NOT VIABLE	-
F3	Newent	5	437 VIABLE	297 VIABLE	154 VIABLE	-
F4	Cinderford	250	64 NOT VIABLE	(-27) NOT VIABLE	(-120) NOT VIABLE	-
F6	Lydney	75	158 VIABLE	83 MARGINAL	7 NOT VIABLE	-
G2	NE Cent Gloucester	75	571 VIABLE	443 VIABLE	309 VIABLE	-
G3	S Cent Gloucester	370	(-307) NOT VIABLE	(-677) NOT VIABLE	(-1,050) NOT VIABLE	-
G4	Quedgeley	75	292 VIABLE	200 VIABLE	108 MARGINAL	-
G5	Canalside	370	319 NOT VIABLE	189 NOT VIABLE	59 NOT VIABLE	-
S1	N Cent Stroud	320	319 NOT VIABLE	176 NOT VIABLE	34 NOT VIABLE	-
S3	S Cent Stroud	185	(-508) NOT VIABLE	(-1,025) NOT VIABLE	(-1,506) NOT VIABLE	-
S4	Cainscross	320	436 VIABLE	316 NOT VIABLE	190 NOT VIABLE	-
S5	Stone	320	472 VIABLE	427 VIABLE	382 VIABLE	-
T1	Churchdown	345	431 VIABLE	279 NOT VIABLE	127 NOT VIABLE	-
T3	Stoke Orchard	5	437 VIABLE	344 VIABLE	252 VIABLE	-
T5	Newtown	75	327 VIABLE	216 VIABLE	102 MARGINAL	-
T6	Tewkesbury	5	193 VIABLE	105 VIABLE	17 NOT VIABLE	-

Comparison results

- 6.14 With zero affordable housing, every site is in fact viable, and the results of this option have been omitted for simplicity. Residential development as 100% market housing is of course a relatively profitable development option, and the sites would, or should, not have been proposed for development otherwise. However it does at least indicate that overall the identified sites are relevant and useful in testing affordable options.
- 6.15 Turning to the various levels of affordable contribution, at Option A (30%) 19 of the 24 sites are viable. Increasing to 40% (Option B), four additional sites become unviable. On the remaining site, the scheme produces a surplus over the alternative use value benchmark, but the surplus is not considered large enough to allow a robust conclusion to be drawn that the site is viable; viability is marginal. So at 40% 14 of the 24 sites can be said to be clearly viable.
- 6.16 Moving to 50% affordable housing, the table shows that a further three sites become unviable. Two other sites have marginal viability. At 50% only 10 of the 24 sites are clearly viable.
- 6.17 In Cotswold at 60%, three sites are viable and one unviable.
- 6.18 We consider the implications of these results for future policy in the final Section of this document. However before doing so we will deal with the possibility, raised above at 4.31, that the alternative use value thresholds for two of the sites (C1 and B3) should be increased.

Increased thresholds on two sites

- 6.19 The alternative use thresholds used in our analysis above for sites C1 & B3 reflected an alternative industrial/warehouse type use; this gave per acre viability thresholds of £255k (£320k less £65k abnormals) for C1, and £380k on the B3 site. It is possible to argue that both sites would be worth more; the Chipping Campden site may well have a higher value in its various existing uses, whilst B3 could alternatively be used, or redeveloped, as offices.
- 6.20 Our view is that somewhat higher values would not seriously undermine the findings set out above, although they might be modified slightly. At even a modest increase C1 would no longer be viable at 60%. However we are reluctant to accept that 50% is unviable; it would require an existing use value of somewhat over £500k per acre, and if the site is worth that amount it should perhaps not be coming forward as an allocation.
- 6.21 Similarly with B3, a modest increase would call into question the 40% option's viability. However to jeopardise 30%, the site would need to be worth approaching £750k per acre.

Postscript: changes in market conditions

- 6.22 The appraisal results reported above are based upon development conditions during the third quarter of 2007, that is, on estimated costs at a base date of August 2007, and market prices primarily collected around September 2007. The study report was essentially finalised in late Spring 2008. By that point it was becoming clear that a major market downturn was under way.
- 6.23 The downturn was triggered by factors outside the housing market proper – problems related to the financial sector. A ‘credit crunch’ severely curtailed the availability of mortgage finance, producing a fall in house prices and a good deal of resulting media attention, which in turn have impacted on purchaser confidence. Consequently, at the time these final words were written, during late summer 2008, there was as yet no sign that prices had stabilised. Whilst one might expect a serious construction downturn to bring downward pressure on build costs, which have recently been rising faster than inflation, it is as yet too early to expect clear evidence of this.
- 6.24 It is necessary to consider how the findings of the study would be affected by the change in market conditions. Falling prices alongside rising build costs will reduce the out turn land values discussed in this Section. It is possible that a general economic downturn, increasingly now likely, will bring offsetting reductions in alternative use values. Even so it is likely that we have entered a period during which any given affordable requirement will be less viable than the study suggests, since the market prices used in appraisals appear to have been a historic peak.
- 6.25 Some commentators have suggested that the downturn will be of comparatively short duration, certainly by comparison with the previous price downturn of 1989-93. There is a widely held view that in recent years the supply of housing has been insufficient to meet demand, prolonging (alongside cultural and media influences) the decade long period of price growth from the mid 90s. If so, the view would be that the recent peak price levels will again be reached, sooner rather than later.
- 6.26 However a rapid recovery cannot be relied upon, and it may be sensible for the six Councils to consider an approach involving monitoring and review, in order to ensure that the viability guidance remains valid. A relatively straightforward approach would be for the appraisal results to be revisited periodically and updated, to allow for indexing of build costs and changes in the price level.

7. IMPLICATIONS OF RESULTS

Our approach

- 7.1 We have produced financial appraisals in respect of residential developments on a range of sites selected in discussion with the six Gloucestershire Councils, in order to assess the impact of alternative affordable housing requirements upon development viability. Our approach has involved the use of 'model' developments for the sites, to a greater or lesser extent, in conjunction with a bespoke financial appraisal package, to arrive at 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 quite 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, over such a substantial and mixed area as Gloucestershire, do need to be quite diverse. The appraisal results would produce open market land values which are broadly in line with general views about values in the area, or if anything little lower. This strongly suggests that the package of development assumptions is not, taken as a whole, unduly optimistic.
- 7.3 A key set of assumptions are those in respect of the range of developer contributions, financial and in kind, that would be required from each of the developments. The assumptions needed to be, firstly, consistent across the whole area, and secondly defensible; appraisals must not underestimate the true contributions burden. These led to an assumed contributions package that is almost certainly 'worst case', and we suspect that many schemes may in practice provide a significantly lighter package of contributions than we have been obliged to assume.
- 7.4 The financial appraisals produce a series of residual values showing the value generated for each site under various affordable scenarios. In an exercise of this nature, the figures have to be interpreted in order to draw conclusions for LDF policies. We have suggested a basis for interpretation which draws on indicative alternative use values. Again, as a broad brush approach, we believe this to be reasonable; producing detailed assessments and valuations for each site would involve resources well beyond the scope of the current exercise, and we suspect would probably still leave room for disputation.
- 7.5 There are considerable variations in house prices in different parts of the Gloucestershire HMA. Many of the chosen sites are, it appears, in lower to medium priced areas, though not all of them. We feel, again, that we have 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, greenfield sites and previously developed land.

- 7.6 In estimating the values which developers would be likely to achieve from affordable housing, we have drawn on information provided by locally active RSLs. We are happy that the RSL response provided sufficient information to enable us to draw conclusions about appropriate purchase prices in each of the six areas.
- 7.7 Our study forms an element of the ongoing work of a Strategic Housing Market Assessment for Gloucestershire and, being prepared alongside that work, does not take into account the results of that study. However, anticipating that study's likely findings in respect of affordability, we focused on shared ownership with a 25% share. If instead a 50% share was provided then, other things equal, scheme viability would improve appreciably.
- 7.8 We have taken a strategic approach, rather than seeking to reflect specific variations in the policy detail, the arrangements and procedures which individual Councils use in negotiating affordable housing (and other S106 matters) site by site, which at this time may in any case be generally subject to review.

Implications of appraisal results

- 7.9 The results from the individual site appraisals suggest that, under a Zero Grant default assumption, an affordable housing target of 30% (20% social rented; 10% shared ownership at 25% share) could apply across Gloucestershire generally. A higher 40% proportion could justifiably apply in many parts of the HMA. A 50% target could similarly deliver viable schemes in some parts of the area, and indeed a majority of the four Cotswold sites might deliver 60%. Such figures can be compared to the average for the region of 35%, proposed in the Panel's Report on Draft RSS as work on the study neared completion; this latter figure of course allows for the availability of some degree of funding assistance.
- 7.10 Viability varies, of course, from site to site. This is not simply a matter of location. For instance, it is clear that on higher density schemes of mainly or wholly flats, it is more difficult to deliver high proportions of affordable housing whilst achieving a viable development. This is primarily because the affordable housing subsidy comes from land value, and there is proportionately much less land value available on such higher density schemes than on a more suburban density development.
- 7.11 Viability is also crucially dependent on the alternative use value. Where there is a valid alternative use for a previously developed site as industrial/warehousing, or some other commercial activity, the value in that use sets the bar rather higher than for a greenfield or otherwise undeveloped site. Whilst undeveloped sites, more especially the larger ones, will face higher development costs, the appraisals suggest that it is somewhat easier to achieve viability on these sites.

- 7.12 The range of sites provided to us is understood to be broadly representative in terms of the developed/undeveloped split, certainly overall if not exactly for each District. However this does raise the question of whether different targets could be applied to brownfield and to greenfield sites.
- 7.13 The provision of high density schemes of predominantly apartments is also an issue about which Councils may wish to consider policy options. Whilst the issue quite clearly applies in Gloucester, the sites we studied indicate that there are other centres – such as Cheltenham and Stroud – where high density schemes will arise.
- 7.14 National planning guidance encourages a mix of dwelling types. It may be that larger schemes of predominantly apartments, which cannot provide accommodation for the full diversity of household types, should on these grounds be discouraged, and developers asked to provide a significant element of family accommodation, e.g. town houses.
- 7.15 Alternatively, a requirement for mixed use, with quite a substantial commercial floorspace, would reduce the gearing of the affordable requirement (so that land value holds up better as the affordable requirement rises).
- 7.16 In considering the implications for the individual Council's affordable housing policy of studies like the present one, we must recognise the complexity and diversity of the development process in reality. There will always be sites and development proposals which, because of exceptional circumstances – abnormal development costs associated with the site; particularly onerous development contribution requirements; an exceptionally high alternative user value; low market prices in a particular locality, and so on - cannot deliver a full affordable housing requirement and remain viable.
- 7.17 In setting targets, it is therefore necessary to strike a balance, setting a target which can be achieved in many or most situations, and accepting that in some cases provision will fall short of the target. In such cases a process or protocol may be required, allowing the landowner or developer to demonstrate to the Council, through satisfactory financial evidence, that a reduced affordable contribution would be justified in order to produce a viable development. If an unduly cautious target were set, the total delivery of affordable housing would be significantly reduced, whilst there would probably still be particular sites or situations where the target could not be secured viably.

Individual Council areas: guidance

- 7.18 In considering the implications of the viability findings for the six individual Council areas, Councils must bear in mind the strategic nature of the exercise. It was not practical to replicate exactly in our appraisals the individual circumstances of a given development, nor each Council's particular approach and procedures.

- 7.19 Examples of the level of generalisation are:
- the intermediate housing category has been defined quite specifically to match the anticipated SHMA proposals;
 - a single social rented/intermediate split was applied across the board;
 - no size mix target was applied;
 - fractions of a dwelling were applied in the calculations, rather than rounding down.
- 7.20 Aside from affordable housing, there is also the possibility that in pursuing consistency and robustness, our appraisals have significantly overestimated the level of developer contribution that would arise on any one scheme, in practice.
- 7.21 Bearing both these points in mind, we proceed to detail some implications for individual areas' policy targets, below. In each case a Table summarises the appraisal results, and for information, shows how these would change ('reduced PG') if the Planning Gain package was reduced, halving the assumed level of developer contributions.

Cheltenham

Table 7.1 Viability summary: Cheltenham			
Developer contributions	Sites viable with		
	30% aff	40% aff	50% aff
Base appraisal	4 viable	3 viable	2 viable
Reduced PG	4 viable	4 viable	3 viable

- 7.22 The findings suggest that the existing 40% target is reasonable. They suggest that it might be possible to increase this figure; there are clearly going to be situations, especially where there is not a high alternative use value, in which 50% could be delivered.
- 7.23 It may be harder to achieve a high target on high density (i.e. apartment) schemes in the centre of Cheltenham than on sites which are less dense. As discussed above at 7.13, Government guidance encourages a mix of dwelling types; including an element of town houses, perhaps primarily to widen the range of affordable house types delivered, might also improve viability at a high target level. Alternatively a mixed use requirement on substantial sites, could be helpful.

Cotswold

Table 7.2 Viability summary: Cotswold				
Developer contributions	Sites viable with			
	30% aff	40% aff	50% aff	60% aff
Base appraisal	4 viable	4 viable	4 viable	3 viable
Reduced PG	4 viable	4 viable	4 viable	3 viable

- 7.24 The findings confirm that the current 50% target is reasonable. There appears to be some scope for an increase on this figure, although it might be considered appropriate to apply it only to greenfield sites.

Forest of Dean

Table 7.3 Viability summary: Forest of Dean			
Developer contributions	Sites viable with		
	30% aff	40% aff	50% aff
Base appraisal	3 viable	1 viable 1 marginal	1 viable
Reduced PG	3 viable	2 viable 1 marginal	1 viable

- 7.25 The sites we examined tended towards 'worst case'. The current policy (40% target & current tenure split), with a zero grant regime, could be sustained on typical sites in the Forest area.
- 7.26 However on brownfield sites in lower priced parts of the District, such a policy may be hard to sustain unless grant is available. Alternatively, where sites are found to be less viable the Council could consider an adjusted tenure split.

Gloucester

Table 7.4 Viability summary: Gloucester			
Developer contributions	Sites viable with		
	30% aff	40% aff	50% aff
Base appraisal	2 viable	2 viable	1 viable 1 marginal
Reduced PG	3 viable	2 viable	2 viable

7.27 There is a degree of support for the current 40% target; though two sites out of four are viable, both are on land not previously developed. This might suggest a differential policy between green and brownfield sites. High density flatted schemes represent a challenge for the City, and may require consideration of policy options.

Stroud

Table 7.5 Viability summary: Stroud			
Developer contributions	Sites viable with		
	30% aff	40% aff	50% aff
Base appraisal	2 viable	1 viable	1 viable
Reduced PG	3 viable	2 viable	1 viable

7.28 The appraisals suggest a reasonable degree of support for the current 30% target, and of course they use a 67/33 tenure split whilst the current target is 50/50. Site S3 is an extremely difficult and complex site and does not provide an ideal basis for policymaking. On the other hand, mixed tenure schemes, being less geared, hold up better as the affordable housing proportion increases.

7.29 No greenfield sites were tested in Stroud. This may reflect the nature of the sites coming forward in the area. However it seems quite feasible that these might commonly deliver 40%.

Tewkesbury

Table 7.6 Viability summary: Tewkesbury			
Developer contributions	Sites viable with		
	30% aff	40% aff	50% aff
Base appraisal	4 viable	3 viable	1 viable 1 marginal
Reduced PG	4 viable	3 viable 1 marginal	3 viable

7.30 The present 30% target is very well supported by the appraisals for the four sites, and of course these assumed a tenure split at 67/33, rather than the present policy of 50/50. There appears to be a case for a move to 40%, on greenfield sites at least.

APPENDICES

APPENDIX 1 SITE INFORMATION SCHEDULE

Table A1 Site Details

Site No	Name	Area ha	Area acres	No dwgs	Density dw/ha	Other uses	Previous use	Planning Status
B1	Bath Rd edge of Town Centre Cheltenham	0.37	0.91	27	73.0		Mixed	Outline permission
B2	Southern edge Charlton Kings	0.18	0.44	12	66.7		Petrol FS	Completed
B3	Landsdown Rd edge of Town Centre Cheltenham	1.25	3.09	90	72.0		Offices	Allocation
B4	Springbank Cheltenham	2.65	6.55	77	29.1		Sports	Completed
C1	Hlgh St Chipping Campden	0.60	1.48	25	41.7	Comm/retail	Garage/retail	Allocation
C2	Cirencester Rd Tetbury	0.50	1.24	15	30.0	(Anc gar)	PFS/anc	Allocation
C4	Southern edge Cirencester	6.40	15.81	192	30.0		Green field	Potential allocation
C5	NE edge Bourton on the Water	2.24	5.54	74	33.0		Green field	Detailed permission
F2	Brownfield site Netherend Woolaston	0.80	1.98	22	27.5		Dairy	Application
F3	SE edge Newent	3.90	9.64	100	25.6		Green field	Minded to permit subj s106
F4	NW Cinderford	3.00	7.41	100	33.3		Industrial	Permission
F6	SE edge Lydney	14.40	35.58	400	27.8	(Industrial)	Golf course	Application
G2	NE of City Centre Gloucester	0.45	1.11	14	31.1		Sports	Outline permission
G3	South of City Centre Gloucester	0.69	1.70	100	144.9		B'field n/k	Prop allocation
G4	Undeveloped land NW Quedgeley	3.10	7.66	30	9.7	(OS)	Educ reserve	Prop allocation
G5	Canalside site SW Gloucester	3.00	7.41	150	50	(Industrial)	Industrial	Proposed allocation

Site No	Name	Area ha	Area acres	No dwgs	Density dw/ha	Other uses	Previous use	Planning Status
S1	N edge of Town Centre Stroud	2.50	6.18	120	48.0		Mixed/ind	Under construction
S3	S edge of Town Centre Stroud	0.44	1.09	101	229.5	Office etc	Industrial	Permitted
S4	Westward Rd Cainscross Stroud	0.32	0.79	14	43.8		Industrial	Permission
S5	Brownfield site Stone	0.94	2.32	9	9.6	Pub	Hotel	Permission
T1	District Centre Churchdown	1.22	3.01	60	49.2		Ind + resid	Part complete part u/c
T3	Former orchards Stoke Orchard	0.69	1.70	10	14.5		Green field	Under construction
T5	Eastern edge Newtown Tewkesbury	0.81	2.00	33	40.7		Greenfield	Completed
T6	Northern edge Tewkesbury	8.00	19.77	255	25.6		Green field	Under construction
	Total	58.45	144.4	2,020	37.8			

APPENDIX 2 DEVELOPER CONTRIBUTIONS MODEL

			No of dwgs	500	250	150	100	75	50	25	15	5
			Actual sites	450	250	150	101+C	90	60	33	15	9+C
						120	100	77		30	14	
								74		27	12	
										25+C	10	
Topic	Item	Threshold										
County												
Transport			4,500	4,000	3,500	3,000	2,750	2,500	1,000	750	500	
Education	Early years	5 dwgs plus	343	343	343	343	343	343	343	343	343	343
	Primary		2,858	2,858	2,858	2,858	2,858	2,858	2,858	2,858	2,858	2,858
	Secondary		3,719	3,719	3,719	3,719	3,719	3,719	3,719	3,719	3,719	3,719
	Primary travel plan		125	125	125	125	125	125	125	125	125	125
	Secondary travel plan		105	105	105	105	105	105	105	105	105	105
Youth & Community		25 dwgs plus	250	250	250	200	200	150	150	0	0	0
Library		25 dwgs plus	143	143	143	143	143	143	143	143	0	0
District												
Community			500	500	450	400	300	250	0	0	0	0
Landscape & OS			500	500	500	500	350	250	100	100	100	100
Childrens & youths play			400	400	400	400	400	400	0	0	0	0
Playing fields			500	500	500	500	500	500	250	125	0	0
Economic & other eg		100 plus?	500	500	350	250	100	0	0	0	0	0
Total			£ 14,443	13,943	13,243	12,543	11,893	11,343	8,793	8,125	7,750	
Rounded to:			£ 14,500	14,000	13,250	12,500	12,000	11,500	8,750	8,000	7,750	

APPENDIX 3 NEW BUILD SCHEMES

The schedule overleaf provides details of a number of current new build developments in each of the six Council areas.

Table A3.1 New build schemes

Cheltenham					
Noverton View Prestbury	Wimpey	84	3 4 & 5 bed houses	£325k- £499k	
South Court Benhall	Wimpey			£148k- £167k	
Cleeve Park Oakley	Laing		2 3 & 4 bed flats & houses	£189k- £329k	
Battledown Park Oakley	Wimpey			£151k- £254k	
St James Honeybourne Way	Crosby	142	1 & 2 bed flats	£159k- £184k	
Cotswold					
Cherry Orchard Mickleton nr Chipping Campden	Barratt		3 & 4 bed houses	£240k- £320k	
Chastleton Court Bourton on the Water	Sharba Homes	9	4 & 5 bed detached housee	£325k- £575k	
Blenheim Place Moreton in Marsh	Barratt		3 & 4 bed houses	£442k	
Newland Mill Cirencester	Newland Homes	24+8 aff	2 bed flats, 1 3 4 & 5 bed houses	£168k- £425k	
Cromwell Park Tetbury	Crest Nicholson	17+12 aff	2 3 4 & 5 bed houses	£189k- £289k £189k- £329k	
Forest of Dean					
Potters Field Lydney	Bell ?	10	3 bed houses 2 bed flats	£179k £125k	
Gloucester					
Barge Arm Docks	Crest Nicholson	84	1 & 2 bed flats	£189k- £209k	
Shipton & Biddle Warehouses	Crest Nicholson		2 bed flats	£184k- £214k	
Collingwood Crescent Horton Rd Hospital	Redrow		1 & 2 bed flats 3 bed duplex	£209k	
Copeland Park Tuffley	Bovis		1 & 2 bed flats 2 & 3 bed houses	£134k- £234k	
Marlborough Gardens Coopers Hucclecote/Brockworth	Colburn Edge Bovis		2 bed flats 2 bed flats 2 3 4 & 5 bed houses	£129k £156k- £349k	

Kings Acre Quedgeley	Bryant		3 & 4 bed houses	£190k- £310k
Kings Mead Quedgeley	Bryant		3 & 4 bed houses	£176k- £285k
Grange Court Quedgeley	Barratt		2 3 4 & 5 bed flats & houses	£144k- £363k
Kings Abbey Quedgeley	Laing		2 bed flats 3 4 & 5 bed houses	£165k- £329k
Templars Manor Quedgeley	David Wilson			£189k- £208k
Stroud				
Forest Rise Nailsworth	Redrow	84	1 2 3 & 4 bed homes	£199k- £253k
Hazel Court Nailsworth	Spiral			£199k
Stuart Court Minchinhampton	English Courtyard	22	2 bed flats & houses	£415k +
?? Dursley	Crest Nicholson		2 bed flats, 2 3 & 4 bed houses	£142k- £272k
Newland Meadows Dursley	Newland	24	3 4 & 5 bed homes	£210k- £315k
Orchard Leaze Stroud	Barratt		2 3 & 4 bed homes	£
The Wharf Ebley	Persimmon		?? flats & apartments	£345k- £404k
Newland Brook Stroud	Newland	47 + aff	1 2 & 3 bed flats 3 4 & 5 bed houses	£134k- £250k £190k- £310k
Tewkesbury				
Rudgeway Fields Tewkesbury	Bloor	84	3 4 & 5 bed homes	£148k- £371k
York Gate Tewkesbury	Bovis		2 3 & 5 bed homes	£k
Rosefields Tewkesbury	Bryant		2 bed flats 3 & 4 bed houses	£165k- £410k
Water Meadows Tewkesbury	Miller			£
Deans Lea Bishops Cleeve	Bovis		2 3 & 4 bed homes	£185k- £402k
Woodmancote Bishops Cleeve	Crest Nicholson		?? 3 & 4 bed houses	£235k- £368k
Deansway Stoke Orchard	David Payne	10+2	4 & 5 bed detached houses	£394k- £499k

APPENDIX 4 HOUSE PRICE VARIATIONS

The indices in the Table which follows compare prices in each postcode sector with the average for Gloucestershire as a whole. 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 sales for the whole area.

Table A4.1 Price variations by postcode sector			
Postcode sector	Areas covered	Q4 2006	Q2 2007
NP16 7	Beachley, Tutshill	95%	83%
GL15 6	St Briavels, Alvington, Bream	89%	93%
GL16 8	Coleford, Sling, Newland	83%	78%
GL15 5	Lydney	72%	74%
GL15 4	Blakeney, Yorkley	96%	81%
GL16 7	English Bicknor, Broadwell	79%	78%
GL14 2	Soudleys	69%	65%
GL14 3	Cinderford South, Littledean	78%	73%
GL17 9	Lydbrook, Drybrook	81%	75%
GL17 0	Mitcheldean, Longhope	84%	84%
GL14 1	Newnham, Bullo, Westbury	103%	113%
GL19 3	Huntley, Tibberton	114%	n/a
GL19 3	Staunton, Hartpury	n/a	98%
GL18 1	Newent	95%	83%
GL18 2	Dymock	n/a	n/a
GL19 4	Apperley, Tirley	165%	134%
GL20 5	Tewkesbury Town	77%	78%
GL20 8	Newtown, Northway	83%	83%
GL52 9	Gotherington, Woodmancote	133%	136%
GL52 7	Bishops Cleeve West, Stoke Orchard	108%	90%
GL52 8	Bishops Cleeve Central	97%	95%
GL52 3	Southam, Ckeeve Hill	142%	124%
GL52 5	Prestbury, Oakley	93%	86%
GL52 6	Charlton Kings North	130%	138%
GL53 8	Charlton Kings South	116%	117%
GL53 7	Charlton Park	137%	126%
GL53 0	Leckhampton	131%	139%
GL50 2	Landsdown, Park	185%	183%

Table A4.1 (cont) Price variations by postcode sector

Postcode sector	Postcode sector	Q4 2006	Q2 2007
GL50 1	Cheltenham Centre East	241%	125%
GL50 3	Cheltenham Centre West	116%	133%
GL50 4	Marle Hill	99%	97%
GL52 2	Fairview	113%	170%
GL51 8	Alstone	78%	101%
GL51 7	Rowanfield	97%	102%
GL51 9	Swindon, Uckington	86%	77%
GL51 0	Springbank, Staverton	87%	77%
GL51 3	Hatherley	94%	100%
GL51 6	The Reddings, Benhall	106%	111%
GL51 4	Shurdington	110%	102%
GL3 4	Brockworth	79%	77%
GL3 2	Churchdown	87%	85%
GL3 1	Churchdown North	78%	77%
GL3 3	Hucclecote	82%	85%
GL4 3	Barnwood	82%	78%
GL2 0	Elmbridge, Longlevens East	85%	83%
GL4 4	Saintbridge, Abbeymead	72%	78%
GL4 5	Abbeydale	76%	82%
GL4 6	Matson	68%	65%
GL4 0	Robins Wood, Brockthorpe	85%	72%
GL2 4	Quedgeley, Hardwicke	74%	75%
GL2 5	Podsmead, Hempsted	82%	77%
GL1 5	Lower Tuffley, Linden	70%	70%
GL1 4	Barton	64%	63%
GL1 1	Gloucester Centre	115%	79%
GL1 2	Gloucester Docks & Riverside	97%	123%
GL1 3	Kingsholm East	101%	93%
GL2 9	Longlevens West, Longford	75%	91%
GL2 8	Highnam, Maisemore	119%	109%
GL2 3	Elmore, Longney	n/a	158%
GL2 7	Frampton, Arlingham, Slimbridge	99%	142%
GL13 9	Berkeley, Sharpness	109%	94%
GL12 7	Wotton under Edge	122%	113%
GL11 6	Cam West, North Nibley	89%	91%
GL11 4	Dursley	85%	86%
GL11 5	Cam East, Uley	105%	83%
GL10 3	Eastington, Haresfield	102%	100%
GL10 2	Stonehouse	76%	83%
GL6 6	Painswick	125%	177%
GL4 8	Upton St Leonards, Brimpsfield	114%	127%
GL5 4	Cainscross	95%	76%
GL5 1	Stroud Central & North	82%	88%
GL5 2	Stroud East, Thrupp, Bowbridge	95%	113%

Table A4.1 (cont) Price variations by postcode sector

Postcode sector	Postcode sector	Q4 2006	Q2 2007
GL5 3	Rodborough	84%	90%
GL5 5	Woodchester	156%	160%
GL6 0	Nailsworth	104%	92%
GL6 8	Chalford	96%	106%
GL6 9	Minchinhampton	166%	160%
GL6 7	Bisley, Sheepscombe	114%	99%
GL8 8	Tetbury	138%	123%
GL7 6	Kemble, Sapperton	168%	108%
GL7 7	Duntisbournes, North Cerney	n/a	139%
GL53 9	Cowley, Southfield Manor	147%	n/a
GL7 1	Cirencester South & East	106%	107%
GL7 2	Cirencester NW, Stratton	120%	127%
GL7 5	Bibury, Ampneys, South Cerney	123%	125%
GL7 4	Fairford	118%	106%
GL7 3	Lechlade, Eastleach	119%	109%
GL54 4	Shipton, Withington	155%	156%
GL54 3	Northleach, Naunton	132%	176%
GL54 5	Winchcombe, Cutsdean	125%	128%
GL54 2	Bourton, Slaughters, Rissington	110%	143%
GL54 1	Stow on the Wold, Swells	122%	122%
GL56 0	Moreton in Marsh, Adlestrop	149%	151%
GL56 9	Blockley, Todenham	165%	120%
GL55 6	Chipping Campden, Mickleton	152%	192%

Source: Analysis of Land Registry data

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 District-wide type mix. Table A4.2 shows worked example.

Table A4.2 Worked example for G13 3 at Q2 2007

	Land Registry data Q2 2007				
	Detached	Semi	Terraced	Flat	Total
Gloucestershire - ave prices	£357,513	£217,720	£177,814	£145,882	
Gloucestershire - no of sales	816	960	807	532	3,115
GL3 3 – ave prices	£299,105	£182,268	£143,899	£133,650	
GL3 3 price as % Gloucestershire	83.7%	85.7%	80.9%	91.6%	
Weighted average index for GL3 3 =	$[(816 \times 83.7\%) + (960 \times 85.7\%) + (807 \times 80.9\%) + (532 \times 91.6\%)] / 3,115$ <p style="text-align: center;">= 84.9%</p>				

APPENDIX 5 SITE BUILD COST ASSUMPTIONS

Table A5.1 Construction cost assumptions by site

No	Site	Notes	Build cost £ per sq ft	Dev costs %
B1	SE Cent Cheltenham	Flats, high spec	87	9%
B2	Charlton Kings	Flats/houses	83	9%
B3	SW Cent Cheltenham	Mainly flats, h spec	88	9%
B4	W Cheltenham	Mainly houses	78	10%
C1	Chipping Campden	Flats, commercial, high spec	94	9.5%
C2	Tetbury	Base, high spec	82.5	9.5%
C4	Cirencester	Edge, high spec	78	15%
C5	Bourton on the Water	Edge, high spec	78	11.5%
F2	Woolaston	Rural, houses	74	10.0%
F3	Newent	Mainly houses	76	13.5%
F4	Cinderford	Base	78.5	10.0%
F6	Lydney	Edge, mainly houses	75	17.5%
G1	NE Cent Gloucester	High, flats	90	8%
G2	S Cent Gloucester	Houses	74	9.5%
G3	Quedgeley	Very high	93	8.5%
G4	S Gloucester Canalside	Houses	74	10%
S1	N Cent Stroud	Urban	80	10%
S3	S Cent Stroud	6 storeys	111	8%
S4	Cainscross	Mainly houses	76	9.5%
S5	Stone	Mainly houses	75	9.5%
T1	Churchdown	Base	78.5	10%
T3	Stoke Orchard	Houses, high spec	78	9%
T5	Newtown	Base	78.5	10%
T6	Tewkesbury	Mainly houses	76	15%

APPENDIX 6 FINANCIAL APPRAISAL SUMMARIES

The development viability **summaries** contained in the following pages set out the assumptions and outputs of the viability appraisals for a 30% affordable 'zero grant' scenario.

SITE B1: SE Central Cheltenham

Input assumptions

Scenario & option

Affordable 30% = 20% social rented & 10% shared ownership at 25% share ZERO GRANT

Gloucestershire Councils

Site details

Site	B1 Naunton Parade	
Location	Cheltenham	
Area	0.37 ha	0.91 acres
No dwgs	27	
Density dw/ha	73.0	

Dwellings

	0.64	0.18	0.09							
	Market housing	Affordable soc rent	Aff sh oship	Total	no of dwgs	%	ave floor space gross sq ft	net sq ft	build cost per sq ft	sales value per sq ft
				27.0	18.9	70%	757	643	87.00	280.00
					5.4	20.0%	757	643	87.00	84.00
					2.7	10.0%	757	643	87.00	133.00
				20,439	17,361	100%	20,439	17,361	£1,778,193	£3,925,322

net:gross= 85%

Floorspace density = 18,989 net sq ft per acre

Contingency

allowance	5.00%
-----------	-------

Development costs

standard % build	9.0%
plus abnormals	0.0%
Total	9%

Design fees

on build costs	9.0%
on dev costs	8%

Planning gain

£ per dwelling	8,750
----------------	-------

12152.7
0
3472.2
0
1736.1
17361

Other costs

Planning	£ per dwelling	400
Survey	£ per dwelling	400
Marketing	£ per dwelling	0

Interest

% per annum	8.25%
-------------	-------

Notes

--

SITE B1 CASH FLOW ALL MARKET HOUSING

SITE B2: Charlton Kings

Input assumptions

Scenario & option

Affordable 30% = 20% social rented & 10% shared ownership at 25% share ZERO GRANT

Gloucestershire Councils

Site details

Site	B2 Charlton Kings	
Location	Cheltenham	
Area	0.18	ha
	0.44	acres
No dwgs	12	
Density dw/ha	66.7	

Dwellings

	no of dwgs	%	ave floor space gross sq ft	net sq ft	build cost per sq ft	sales value per sq ft
0.31 Market housing	8.4	70%	1,053	1,001	83.00	257.00
0.09 Affordable soc rent	2.4	20.0%	1,053	1,001	83.00	81.00
0.04 Aff sh oship	1.2	10.0%	1,053	1,001	83.00	134.00
Total	12.0	100%	12,636	12,012	£1,048,788	£2,516,514

net: gross = 95%

Floorspace density = 27,007 net sq ft per acre

Contingency

allowance	5.00%
-----------	-------

Development costs

standard % build	9.0%
plus abnormal	4.5%
Total	14%

Design fees

on build costs	9.0%
on dev costs	8%

Planning gain

£ per dwelling	8,000
----------------	-------

8408.4
0
2402.4
0
1201.2
12012

Other costs

Planning	£ per dwelling	400
Survey	£ per dwelling	600
Marketing	£ per dwelling	0

Interest

% per annum	8.25%
-------------	-------

Notes

SITE B3 SW Central Cheltenham

Input assumptions

Scenario & option

Affordable 30% = 20% social rented & 10% shared ownership at 25% share ZERO GRANT

Gloucestershire Councils

Site details

Site	B3 SW Cent Cheltenham	
Location	Cheltenham	
Area	1.25	ha
	3.09	acres
No dwgs	90	
Density dw/ha	72.0	

Dwellings

	no of dwgs	%	ave floor space gross sq ft	net sq ft	build cost per sq ft	sales value per sq ft
2.16 Market housing	63.0	70%	975	927	88.00	267.00
0.62 Affordable soc rent	18.0	20.0%	975	927	88.00	83.00
0.31 Aff sh oship	9.0	10.0%	975	927	88.00	133.00
Total	90.0	100%	87,750	83,430	£7,722,000	£18,087,624

net:gross= 95%

Floorspace density = 27,011 net sq ft per acre

Contingency

allowance	5.00%
-----------	-------

Development costs

standard % build	9.0%
plus abnormal	1.2%
Total	10%

Design fees

on build costs	10.0%
on dev costs	8%

Planning gain

£ per dwelling	12,000
----------------	--------

58401
0
16686
0
8343
83430

Other costs

Planning	£ per dwelling	400
Survey	£ per dwelling	400
Marketing	£ per dwelling	0

Interest

% per annum	8.25%
-------------	-------

Notes

--

SITE B4 West Cheltenham

Input assumptions

Scenario & option

Affordable 30% = 20% social rented & 10% shared ownership at 25% share ZERO GRANT

Gloucestershire Councils

Site details

Site	B4 West Cheltenham	
Location	Cheltenham	
Area	2.65	ha
	6.55	acres
No dwgs	77	
Density dw/ha	29.1	

Dwellings

	no of dwgs	%	ave floor space gross sq ft	net sq ft	build cost per sq ft	sales value per sq ft
4.58 Market housing	53.9	70%	1,119	1,119	78.00	210.00
1.31 Affordable soc rent	15.4	20.0%	1,119	1,119	78.00	78.00
0.65 Aff sh oship	7.7	10.0%	1,119	1,119	78.00	134.00
Total	77.0	100%	86,163	86,163	£6,720,714	£15,164,688

net:gross= 100%

Floorspace density = 13,158 net sq ft per acre

Contingency

allowance	2.50%
-----------	-------

Development costs

standard % build	10.0%
plus abnormals	0.0%
Total	10%

Design fees

on build costs	9.0%
on dev costs	8%

Planning gain

£ per dwelling	12,000
----------------	--------

60314.1
0
17232.6
0
8616.3
86163

Other costs

Planning	400	£ per dwelling
Survey	200	£ per dwelling
Marketing	0	£ per dwelling

Interest

% per annum	8.25%
-------------	-------

Notes

--

SITE B4 LAND COST & PHASING

Land		Iterate to achieve 20.0% profit	
Land purchase price	Affordable	No affordable	
RV per acre	£ 2,221,201	£ 3,938,000	
RV per hectare	£ 339,211	£ 601,391	
	£ 838,189	£ 1,486,038	
Dev profit	£ 2,368,310	£ 3,016,189	
Total costs	£ 12,797,368	£ 15,079,031	
profit as % of costs	18.51%	20.00%	

Programme	Year 1				Year 2				Year 3				Year 4				TOTALS				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4					
Units started																					
Market housing	8.4	9.1	9.1	9.1	9.1	9.1	9.1	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.9	
Affordable soc rent	2.4	2.6	2.6	2.6	2.6	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.4	
Aff sh oship	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	
TOTAL	0	0	12	13	13	13	13	13	0	0	0	0	0	0	0	0	0	0	0	77.0	
Units 'built' +2Q																					
Market housing	0	0	0	0	8	9	9	9	9	9	9	9	9	0	0	0	0	0	0	54	
Affordable soc rent	0	0	0	0	2	3	3	3	3	3	3	3	3	0	0	0	0	0	0	15	
Aff sh oship	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	8	
Units completed +3Q																					
Market housing	0	0	0	0	0	8	9	9	9	9	9	9	9	0	0	0	0	0	0	54	
Affordable soc rent	0	0	0	0	0	2	3	3	3	3	3	3	3	0	0	0	0	0	0	15	
Aff sh oship	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	8	
Units purchased +4Q																					
Market housing	0	0	0	0	0	0	8	9	9	9	9	9	9	0	0	0	0	0	0	54	
Affordable soc rent	0	0	0	0	0	0	2	3	3	3	3	3	3	0	0	0	0	0	0	15	
Aff sh oship	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	8	

SITE C1: Chipping Campden

SITE C2: Tetbury

Input assumptions

Scenario & option

Affordable 30% = 20% social rented & 10% shared ownership at 25% share ZERO GRANT

Gloucestershire Councils

Site details	
Site	C2
Location	Tetbury
Area	0.50 ha
	1.24 acres
No dwgs	15
Density dw/ha	30.0

Dwellings	no of dwgs	%	ave floor space gross sq ft	net sq ft	build cost per sq ft	sales value per sq ft
0.86 Market housing	10.5	70%	1,316	1,277	82.50	267.00
0.25 Affordable soc rent	3.0	20.0%	1,316	1,277	82.50	80.00
0.12 Aff sh oship	1.5	10.0%	1,316	1,277	82.50	129.00
Total	15.0	100%	19,740	19,155	£1,628,550	£4,133,649

Floorspace density = 15,504 net sq ft per acre

net:gross= 97%

Contingency allowance	3.80%
------------------------------	-------

Development costs standard % build	9.5%
---	------

plus abnormals	5.9%
-----------------------	------

Total 15%

Design fees on build costs	10.0%
-----------------------------------	-------

on dev costs 8%

Planning gain £ per dwelling	8,000
-------------------------------------	-------

13408.5
0
3831
0
1915.5
19155

Other costs	
Planning	400 £ per dwelling

Survey	600 £ per dwelling
--------	--------------------

Marketing	0 £ per dwelling
-----------	------------------

Interest % per annum	8.25%
-----------------------------	-------

Notes

--

SITE C2 LAND COST & PHASING

Land		Iterate to achieve 20.0% profit			
Land purchase price	Affordable	No affordable			
RV per acre	£ 798,700	£ 1,394,345			
RV per hectare	£ 646,459	£ 1,128,568			
Dev profit	£ 645,520	£ 852,392			
Total costs	£ 3,488,872	£ 4,262,735			
profit as % of costs	18.50%	20.00%			

Programme	Year 1				Year 2				Year 3				Year 4				TOTALS			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
Units started																				
Market housing																				
Affordable soc rent																				
Aff sh oship																				
TOTAL	0	0	1	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15.0
Units 'built' +2Q																				
Market housing																				
Affordable soc rent																				
Aff sh oship																				
Units completed +3Q																				
Market housing																				
Affordable soc rent																				
Aff sh oship																				
Units purchased +4Q																				
Market housing																				
Affordable soc rent																				
Aff sh oship																				
TOTALS	11	3	2	11	11	3	2	11	11	3	2	11	11	3	2	11	11	3	2	11

SITE C2 CASH FLOW AFFORDABLE

	rate	Year 1				Year 2				Year 3				Year 4				TOTALS
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
INCOME																		
Housing sales		0	0	0	0	0	0	239	1,671	1,671	0	0	0	0	0	0	0	3,580
Market housing		0	0	0	0	0	0	20	143	143	0	0	0	0	0	0	0	306
Affordable soc rent		0	0	0	0	0	0	16	115	115	0	0	0	0	0	0	0	247
Aff sh oship		0	0	0	0	0	0	-9	-60	-60	0	0	0	0	0	0	0	-129
Sales fees		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total income		0	0	0	0	0	0	276	1,929	1,929	0	0	0	0	0	0	0	4,134
COSTS																		
Land		799																799
Land acquisition		32																32
Stamp duty		12																12
Purchase fees																		
Total		843																843
Build costs		0	0	0	0	76	532	532	0	0	0	0	0	0	0	0	0	1,140
Market housing		0	0	0	0	22	152	152	0	0	0	0	0	0	0	0	0	326
Affordable soc rent		0	0	0	0	11	76	76	0	0	0	0	0	0	0	0	0	163
Aff sh oship		0	0	0	0	4	29	29	0	0	0	0	0	0	0	0	0	62
Build contingency	3.8%	0	0	0	0													
Total		20	20	20	20	37	0	0	0	0	0	0	0	0	0	0	0	1,690
Dev costs		0	0	5	37													80
Upfront	4.8%	0	0	5	37													80
Build related	4.8%	0	0	0	0													100
Abnormals	6%	50																100
Total		50	0	5	37	0	0	0	0	0	0	0	0	0	0	0	0	260
Fees		0	0	2	5	11	79	79	0	0	0	0	0	0	0	0	0	169
Fees on build costs	10.0%	0	0	2	5	3	0	0	0	0	0	0	0	0	0	0	0	21
Fees on dev costs	8.0%	6	6															190
Total		6	6	2	5	11	79	79	0	0	0	0	0	0	0	0	0	120
PG				8	56	56	0	0	0	0	0	0	0	0	0	0	0	120
Planning gain				8	56	56	0	0	0	0	0	0	0	0	0	0	0	120
Total		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	6
Other		2	2															9
Planning	£400	2	2															9
Survey	£600	9																0
Marketing	£0																	0
Total		11	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Sales fees		0	0	0	0	0	0	9	60	60	0	0	0	0	0	0	0	129
b/forward from above																		
Total costs		929	78	37	118	220	868	876	60	60	0	0	0	0	0	0	0	3,248
Net profit/loss from quarter		-929	-78	-37	-118	-220	-868	-601	1,869	1,869	0	0	0	0	0	0	0	886
Profit/loss bf from last quarter		0	-948	-1,047	-1,107	-1,250	-1,501	-2,417	-3,080	-1,236	646	646	646	646	646	646	646	646
Cumulative profit/loss		-929	-1,026	-1,084	-1,225	-1,470	-2,368	-3,018	-1,211	632	646	646	646	646	646	646	646	646
Interest	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Charged at		-19	-21	-22	-25	-30	-49	-62	-25	13	0	0	0	0	0	0	0	0
Total		-948	-1,047	-1,107	-1,250	-1,501	-2,417	-3,080	-1,236	646	646	646	646	646	646	646	646	-241
Cumulative developer profit carried forward to RV calc																		646

SITE C4: Cirencester

Input assumptions **Scenario & option** Affordable 30% = 20% social rented & 10% shared ownership at 25% share ZERO GRANT

Gloucestershire Councils

Site details

Site	C4
Location	Cirencester
Area	6.40 ha
	15.81 acres
No dwgs	192
Density dw/ha	30.0

Dwellings

	no of dwgs	%	ave floor space gross sq ft	net sq ft	build cost per sq ft	sales value per sq ft
11.07 Market housing	134.4	70%	1,051	1,030	82.50	297.00
3.16 Affordable soc rent	38.4	20.0%	1,051	1,030	82.50	80.00
1.58 Aff sh oship	19.2	10.0%	1,051	1,030	82.50	129.00
Total	192.0	100%	201,792	197,760	£16,647,840	£46,829,568

Floorspace density = 12,505 net sq ft per acre

Contingency

allowance	2.50%	138432
		0
		39552
		0
		19776
		197760

Development costs

standard % build	15.0%	£ per dwelling
plus abnormal	0.0%	£ per dwelling
Total	15%	£ per dwelling

Design fees

on build costs	10.0%
on dev costs	8%

Planning gain £ per dwelling **13,250**

Interest % per annum **8.25%**

Notes

SITE C4 CASH FLOW AFFORDABLE

	rate	Year 1				Year 2				Year 3				Year 4				TOTALS
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
INCOME																		
Housing sales		0	0	0	0	0	0	2,570	4,283	4,283	4,283	4,283	4,283	4,283	4,283	4,283	4,283	41,114
Affordable soc rent		0	0	0	0	0	0	198	330	330	330	330	330	330	330	330	330	3,164
Aff sh oship		0	0	0	0	0	0	159	266	266	266	266	266	266	266	266	266	2,551
Sales fees		0	0	0	0	0	0	-93	-154	-154	-154	-154	-154	-154	-154	-154	-154	-1,480
Total income		0	0	0	0	0	0	2,927	4,878	4,878	4,878	4,878	4,878	4,878	4,878	4,878	4,878	46,830
COSTS																		
Land		10,059																10,059
Stamp duty		402																402
Purchase fees		151																151
Total		10,612																10,612
Build costs		0	0	0	0	728	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	11,653
Market housing		0	0	0	0	208	347	347	347	347	347	347	347	347	347	347	347	3,330
Affordable soc rent		0	0	0	0	104	173	173	173	173	173	173	173	173	173	173	173	1,665
Aff sh oship		0	0	0	0	26	43	43	43	43	43	43	43	43	43	43	43	416
Build contingency	2.5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17,064
Total		320	320	320	320	133	133	133	133	133	133	133	133	133	133	133	133	1,280
Upfront	7.5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,280
Build related	7.5%	0	0	0	0	80	133	133	133	133	133	133	133	133	133	133	133	1,280
Abnormals	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	0	107	178	178	178	178	178	178	178	178	178	178	178	2,560
Fees on build costs	10.0%	26	26	32	36	11	11	11	11	11	11	11	11	11	11	11	11	205
Fees on dev costs	8.0%	0	0	0	0	265	265	265	265	265	265	265	265	265	265	265	265	1,911
Total		26	26	32	36	265	265	265	265	265	265	265	265	265	265	265	265	2,544
PG		26	26	159	265	0	0	0	0	0	0	0	0	0	0	0	0	2,544
Planning	£400	26	26	26	26	0	0	0	0	0	0	0	0	0	0	0	0	77
Survey	£200	38	38	38	38	0	0	0	0	0	0	0	0	0	0	0	0	38
Marketing	£0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	0	93	154	154	154	154	154	154	154	154	154	115
Sales fees		11,022	371	617	755	1,582	2,364	2,457	2,518	2,518	2,518	2,518	2,518	2,518	2,518	2,518	2,518	1,480
Total costs		11,022	371	617	755	1,582	2,364	2,457	2,518	2,518	2,518	2,518	2,518	2,518	2,518	2,518	2,518	36,287
Net profit/loss from quarter		-11,022	-371	-617	-755	-1,582	-2,364	470	2,360	2,360	2,360	2,360	2,360	2,360	2,769	2,769	4,724	10,543
Profit/loss bf from last quarter		0	-11,249	-11,860	-12,734	-13,766	-15,665	-18,401	-18,300	-16,269	-14,197	-12,081	-9,922	-7,718	-5,051	-2,330	2,444	
Cumulative profit/loss		-11,022	-11,620	-12,476	-13,488	-15,348	-18,029	-17,931	-15,941	-13,910	-11,837	-9,721	-7,562	-4,949	-2,283	2,394	7,167	
Interest	8.25%	227	-240	-257	-278	-317	-372	-370	-329	-287	-244	-201	-156	-102	-47	49	148	
Charged at Total	8.25%	-11,249	-11,860	-12,734	-13,766	-15,665	-18,401	-18,300	-16,269	-14,197	-12,081	-9,922	-7,718	-5,051	-2,330	2,444		
Cumulative developer profit carried forward to RV calc		-11,249	-11,860	-12,734	-13,766	-15,665	-18,401	-18,300	-16,269	-14,197	-12,081	-9,922	-7,718	-5,051	-2,330	2,444	7,315	-3,229

SITE C5: Bourton on the Water

SITE F2: Woolaston

Input assumptions

Scenario & option

Affordable 30% = 20% social rented & 10% shared ownership at 25% share ZERO GRANT

Gloucestershire Councils

Site details

Site	F2
Location	Woolaston
Area	0.80
	1.98
	acres
No dwgs	22
Density dw/ha	27.5

Dwellings

	no of dwgs	%	ave floor space gross sq ft	net sq ft	build cost per sq ft	sales value per sq ft
1.38 Market housing	15.4	70%	943	943	74.00	220.00
0.40 Affordable soc rent	4.4	20.0%	943	943	74.00	78.00
0.20 Aff sh oship	2.2	10.0%	943	943	74.00	98.00
Total	22.0	100%	20,746	20,746	£1,535,204	£3,721,832

Floorspace density = 10.495 net sq ft per acre
 net: gross = 100%

Contingency

allowance	5.00%
-----------	-------

Development costs

standard % build	10.0%
plus abnormal	0.0%
Total	10%

Design fees

on build costs	9.0%
on dev costs	8%

Planning gain

£ per dwelling	8,750
----------------	-------

14522.2
 0
 4149.2
 0
 2074.6
 20746

Other costs

Planning	£ per dwelling	400
Survey	£ per dwelling	400
Marketing	£ per dwelling	0

Interest

% per annum	8.25%
-------------	-------

Notes

--

SITE F3: Newent

Input assumptions

Scenario & option

Affordable 30% = 20% social rented & 10% shared ownership at 25% share ZERO GRANT

Gloucestershire Councils

Site details

Site	F3
Location	Newent
Area	2.84 ha
	7.02 acres
No dwgs	100
Density dw/ha	35.2

Dwellings

	no of dwgs	%	ave floor space gross sq ft	net sq ft	build cost per sq ft	sales value per sq ft
4.91 Market housing	70.0	70%	1,229	1,205	76.00	221.00
1.40 Affordable soc rent	20.0	20.0%	1,229	1,205	76.00	79.00
0.70 Aff sh oship	10.0	10.0%	1,229	1,205	76.00	95.00
Total	100.0	100%	122,900	120,500	£9,340,400	£21,690,000

net gross = 98%

Floorspace density = 17,171 net sq ft per acre

Contingency

allowance	2.50%
-----------	-------

Development costs

standard % build	14.5%
plus abnormals	0.0%
Total	15%

Design fees

on build costs	9.0%
on dev costs	8%

Planning gain

£ per dwelling	12,500
----------------	--------

84350
0
24100
0
12050
120500

Other costs

Planning	£ per dwelling	400
Survey	£ per dwelling	200
Marketing	£ per dwelling	0

Interest

% per annum	8.25%
-------------	-------

Notes

--

SITE F3 CASH FLOW AFFORDABLE

	rate	Year 1				Year 2				Year 3				Year 4				TOTALS
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
INCOME																		
Housing sales		0	0	0	0	0	0	1,864	2,796	2,796	2,796	2,796	2,796	2,796	0	0	0	18,641
Market housing		0	0	0	0	0	0	190	286	286	286	286	286	286	0	0	0	1,904
Affordable soc rent		0	0	0	0	0	0	114	172	172	172	172	172	172	0	0	0	1,145
Aff sh oship		0	0	0	0	0	0	-67	-101	-101	-101	-101	-101	-101	0	0	0	-673
Sales fees		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total income		0	0	0	0	0	0	2,169	3,254	3,254	3,254	3,254	3,254	3,254	0	0	0	21,690
COSTS																		
Land		3,070																3,070
Land acquisition		123																123
Stamp duty		46																46
Purchase fees																		
Total		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,239
Build costs		0	0	0	0	654	981	981	981	981	981	981	981	981	0	0	0	6,538
Market housing		0	0	0	0	187	280	280	280	280	280	280	280	280	0	0	0	1,868
Affordable soc rent		0	0	0	0	93	140	140	140	140	140	140	140	140	0	0	0	934
Aff sh oship		0	0	0	0	23	35	35	35	35	35	35	35	35	0	0	0	234
Build contingency	2.5%	0	0	0	0	104	104	104	104	104	104	104	104	104	0	0	0	9,574
Total		174	174	174	174	104	104	104	104	104	104	104	104	104	0	0	0	694
Dev costs		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	694
Upfront	7.3%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Build related	7.3%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Abnormals	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	0	86	129	129	129	129	129	129	129	129	0	0	0	1,388
Fees		14	14	19	22	8	8	8	8	8	8	8	8	8	0	0	0	862
Fees on build costs	9.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	111
Fees on dev costs	8.0%	14	14	19	22	8	8	8	8	8	8	8	8	8	0	0	0	973
Total		14	14	19	22	8	8	8	8	8	8	8	8	8	0	0	0	1,250
PG				125	188	188	188	188	188	188	188	188	188	188	0	0	0	1,250
Planning gain				125	188	188	188	188	188	188	188	188	188	188	0	0	0	1,250
Total		13	13	13	13	188	188	188	188	188	188	188	188	188	0	0	0	1,250
Other		20																40
Planning	£400	20																20
Survey	£200																	20
Marketing	£0																	0
Total		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
Sales fees		0	0	0	0	0	0	67	101	101	101	101	101	101	0	0	0	673
b/forward from above		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total costs		3,460	201	401	487	1,344	1,865	1,933	1,966	1,966	1,666	1,666	1,666	1,666	101	0	0	17,157
Net profit/loss from quarter		-3,460	-201	-401	-487	-1,344	-1,865	236	1,287	1,587	1,587	1,587	1,587	1,587	0	0	0	4,533
Profit/loss bf from last quarter		0	-3,531	-3,808	-4,296	-4,882	-6,354	-8,388	-8,320	-8,320	-6,012	-4,516	-2,989	-2,989	167	3,388	3,388	3,388
Cumulative profit/loss		-3,460	-3,732	-4,209	-4,783	-6,225	-8,219	-8,152	-7,033	-6,225	-4,425	-2,929	163	163	3,319	3,388	3,388	3,388
Interest	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	0.00%	0.00%	0.00%
Charged at		-71	-77	-87	-99	-128	-170	-168	-145	-128	-91	-60	3	3	68	0	0	0
Total		-71	-77	-87	-99	-128	-170	-168	-145	-128	-91	-60	3	3	68	0	0	-1,146
Cumulative developer profit carried forward to RV calc		-3,531	-3,808	-4,296	-4,882	-6,354	-8,388	-8,320	-7,178	-6,012	-4,516	-2,989	167	167	3,388	3,388	3,388	3,387

SITE F4: Cinderford

Input assumptions

Scenario & option

Affordable 30% = 20% social rented & 10% shared ownership at 25% share ZERO GRANT

Gloucestershire Councils

Site details

Site	F4
Location	Cinderford
Area	3.00
	7.41
	acres
No dwgs	100
Density dw/ha	33.3

Dwellings

	no of dwgs	%	ave floor space gross sq ft	net sq ft	build cost per sq ft	sales value per sq ft
5.19 Market housing	70.0	70%	1,185	1,149	78.50	182.00
1.48 Affordable soc rent	20.0	20.0%	1,185	1,149	78.50	79.00
0.74 Aff sh oship	10.0	10.0%	1,185	1,149	78.50	95.00
Total	100.0	100%	118,500	114,900	£9,302,250	£17,545,230

Floorspace density = 15,500 net sq ft per acre
 net:gross= 97%

Contingency

allowance	5.00%
-----------	-------

Development costs

standard % build	10.0%
plus abnormals	1.0%
Total	11%

100

Floorspace density = 15,500 net sq ft per acre

80430
0
22980
0
11490
114900

Other costs

Planning	400	£ per dwelling
Survey	600	£ per dwelling
Marketing	0	£ per dwelling

Design fees

on build costs	9.0%
on dev costs	8%

Interest

% per annum	8.25%
-------------	-------

Planning gain

£ per dwelling	12,500
----------------	--------

Notes

--

SITE F6: Lydney

Input assumptions

Scenario & option

Affordable 30% = 20% social rented 10% shared ownership

Gloucestershire Councils

Site details

Site	F6
Location	Lydney
Area	14.40 ha
No dwgs	35.58 acres
Density dw/ha	450
	31.3

Contingency allowance

2.50%

Development costs

standard % build

17.5%

plus abnormals

0.0%

Total

18%

Design fees

on build costs

9.0%

on dev costs

8%

Planning gain

£ per dwelling

14,500

Dwellings

Dwellings

	Market housing	Affordable soc rent	Affordable sh oship	Affordable other A	Affordable other B	Total
ave floor space gross sq ft	1,009	1,009	1,009	1,009	1,009	454,050
ave floor space net sq ft	988	988	988	988	988	444,600
build cost per sq ft	75.00	75.00	75.00	75.00	75.00	£34,053,750
sales value per sq ft	201.00	79.00	96.00	0.00	0.00	£73,848,060

Floorspace density = 12.495 net sq ft per acre

Other costs

Planning £ per dwelling

400

Survey £ per dwelling

200

Marketing £ per dwelling

0

Interest

% per annum

8.25%

Notes

SITE B1 CASH FLOW ALL MARKET HOUSING

	rate	Year 1				Year 2				Year 3				Year 4			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
INCOME																	
Housing sales																	
Market housing		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aff soc rent as mkt		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aff sh oship as mkt		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aff sh oship other A		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Affordable other B		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	0	0	0	0	0	0	0	0	0
Total income		0	0	0	0	0	0	0	1,986	3,972	3,972	3,972	3,972	3,972	3,972	3,972	3,972
COSTS																	
Land																	
Land acquisition		12,747															
Stamp duty		510															
Purchase fees		191															
Total		13,448															
Build costs																	
Market housing		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aff soc rent as mkt		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aff sh oship as mkt		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aff sh oship other A		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Affordable other B		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Build contingency	2.5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dev costs																	
Upfront	8.8%	764	764	764	764	136	136	136	136	136	136	136	136	136	136	136	136
Build related	8.8%	0	0	0	68												
Abnormals	0%	0	0	0	0												
Total		764	764	764	832	136	136	136	136	136	136	136	136	136	136	136	136
Fees																	
Fees on build costs	9.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fees on dev costs	8.0%	61	61	61	67	11	11	11	11	11	11	11	11	11	11	11	11
Total		61	61	61	67	11	11	11	11	11	11	11	11	11	11	11	11
PG																	
Planning gain		0	0	0	145	290	290	290	290	290	290	290	290	290	290	290	290
Total		0	0	0	145	290	290	290	290	290	290	290	290	290	290	290	290
Other																	
Planning	£400	60	60	60	60												
Survey	£200	90															
Marketing	£0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		150	60	60	60	0	0	0	0	0	0	0	0	0	0	0	0
Sales fees																	
<i>b/forward from above</i>		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total costs		14,422	885	885	1,043	437	1,282	2,128	2,197	2,267	2,267	2,267	2,267	2,267	2,267	2,267	2,267
Net profit/loss from quarter		-14,422	-885	-885	-1,043	-437	-1,282	-2,128	-211	1,705	1,705	1,705	1,705	1,705	1,705	1,705	1,705
Profit/loss bf from last quarter		0	-14,720	-15,926	-17,157	-18,576	-19,404	-21,113	-23,720	-24,424	-23,188	-21,925	-20,637	-19,322	-17,980	-16,611	-15,213
Cumulative profit/loss		-14,422	-15,604	-16,811	-18,200	-19,012	-20,686	-23,240	-23,931	-22,719	-21,482	-20,220	-18,932	-17,617	-16,275	-14,906	-13,508
Interest	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%
Charged at		-297	-322	-347	-375	-392	-427	-479	-494	-469	-443	-417	-390	-363	-336	-307	-279
Total		-297	-322	-347	-375	-392	-427	-479	-494	-469	-443	-417	-390	-363	-336	-307	-279
Cumulative developer profit carried forward to RV calc		-14,720	-15,926	-17,157	-18,576	-19,404	-21,113	-23,720	-24,424	-23,188	-21,925	-20,637	-19,322	-17,980	-16,611	-15,213	-13,786

SITE G2: NE Central Gloucester

Input assumptions **Scenario & option** Affordable 30% = 20% social rented & 10% shared ownership at 25% share ZERO GRANT

Gloucestershire Councils

Site details	G2 NE Central Gloucester Gloucester
Location	0.45
Area	1.11
ha	14
acres	31.1
No dwgs	
Density dw/ha	

Dwellings		no of dwgs	%	ave floor space gross sq ft	net sq ft	build cost per sq ft	sales value per sq ft
0.78	Market housing	9.8	70%	1,231	1,231	74.00	220.00
0.22	Affordable soc rent	2.8	20.0%	1,231	1,231	74.00	69.00
0.11	Aff sh oship	1.4	10.0%	1,231	1,231	74.00	115.00
	Total	14.0	100%	17,234	17,234	£1,275,316	£3,090,056

Floorspace density = 15,499 net sq ft per acre

Contingency allowance	2.50%	12063.8
		0
		3446.8
		0
		1723.4
		17234

Development costs standard % build	9.5%	£ per dwelling
plus abnormal	0.0%	£ per dwelling
Total	10%	£ per dwelling

Design fees on build costs	9.0%	Interest % per annum
		8.25%
on dev costs	8%	

Planning gain	8,000
£ per dwelling	

Notes

SITE G3: South Central Gloucester

Input assumptions

Scenario & option

Affordable 30% = 20% social rented & 10% shared ownership at 25% share ZERO GRANT

Gloucestershire Councils

Site details

Site	G3 S Central Gloucester
Location	Gloucester
Area	0.69 ha
	1.70 acres
No dwgs	100
Density dw/ha	144.9

Dwellings

	1.19	0.34	0.17						
Market housing	70.0	20.0	10.0	no of dwgs	70.0	20.0	10.0	%	70%
Affordable soc rent									20.0%
Aff sh oship									10.0%
Total	100.0	100%							

Floorspace density = 42.522 net sq ft per acre

Contingency

allowance	5.00%
-----------	-------

Development costs

standard % build	7.0%
plus abnormals	0.0%
Total	7%

Design fees

on build costs	9.0%
on dev costs	8%

Planning gain

£ per dwelling	12,500
----------------	--------

50750
0
14500
0
7250
72500

Other costs

Planning	400	£ per dwelling
Survey	400	£ per dwelling
Marketing	0	£ per dwelling

Interest

% per annum	8.25%
-------------	-------

Notes

--

ave floor space gross sq ft	net sq ft	build cost per sq ft	sales value per sq ft
850	725	93.00	225.00
850	725	93.00	76.00
850	725	93.00	117.00
85,000	72,500	£7,905,000	£13,369,000

net:gross= 85%

59,500

17,000

8,500

85,000

SITE G4: Quedgeley

Input assumptions

Scenario & option

Affordable 30% = 20% social rented & 10% shared ownership at 25% share ZERO GRANT

Gloucestershire Councils

Site details	
Site	G4 Quedgeley Gloucester
Location	
Area	1.26 ha
	3.11 acres
No dwgs	35
Density dw/ha	27.8

Dwellings		no of dwgs	%	ave floor space gross sq ft	net sq ft	build cost per sq ft	sales value per sq ft
2.18	Market housing	24.5	70%	1,145	1,112	74.00	205.00
0.62	Affordable soc rent	7.0	20.0%	1,145	1,112	74.00	69.00
0.31	Aff sh oship	3.5	10.0%	1,145	1,112	74.00	115.00
	Total	35.0	100%	40,075	38,920	£2,965,550	£6,569,696

net:gross= 97%

Floorspace density = 12,501 net sq ft per acre

Contingency allowance	2.50%
------------------------------	-------

Development costs standard % build	10.0%
plus abnormals	2.5%
Total	12%

Design fees on build costs	9.0%
on dev costs	8%
Planning gain £. per dwelling	8,750

Other costs Planning	400	£. per dwelling
Survey	200	£. per dwelling
Marketing	0	£. per dwelling

27244	0	7784	0	3892	38920
-------	---	------	---	------	-------

Notes

--

SITE G5: SW Gloucester Canalside

Input assumptions **Scenario & option** Affordable 30% = 20% social rented & 10% shared ownership at 25% share ZERO GRANT

Gloucestershire Councils

Site details	G5 SW Gloucester Canalside
Site	Gloucester
Location	3.00
Area	7.41
	acres
No dwgs	150
Density dw/ha	50.0

Dwellings		no of dwgs	%	ave floor space gross sq ft	net sq ft	build cost per sq ft	sales value per sq ft
5.19	Market housing	105.0	70%	798	766	78.50	228.00
1.48	Affordable soc rent	30.0	20.0%	798	766	78.50	73.00
0.74	Aff sh oship	15.0	10.0%	798	766	78.50	116.00
Total		150.0	100%	119,700	114,900	£9,396,450	£21,348,420

Floorspace density = 15,500 net sq ft per acre
 net: gross = 96%

Contingency allowance	5.00%	80430	£ per dwelling
		0	
Development costs standard % build	9.0%	22980	£ per dwelling
		0	
plus abnormals	0.0%	11490	£ per dwelling
Total	9%	114900	

Design fees on build costs	9.0%		
on dev costs	8%		
Planning gain £ per dwelling	13,250		

Interest % per annum	8.25%
-----------------------------	-------

Notes

SITE G5 LAND COST & PHASING

Land		Iterate to achieve 20.0% profit	
	Affordable	No affordable	
Land purchase price	£ 2,366,000	£ 5,204,576	
RV per acre	£ 319,169	£ 702,088	
RV per hectare	£ 788,667	£ 1,734,859	
Dev profit	£ 3,334,451	£ 4,367,583	
Total costs	£ 18,015,124	£ 21,830,772	
profit as % of costs	18.51%	20.01%	

Programme	Year 1				Year 2				Year 3				Year 4				TOTALS		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Units started																			
Market housing																			
Affordable soc rent																			
Aff sh oship																			
TOTAL	0	0	10	20	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	150.0
Units 'built' +2Q																			
Market housing																			
Affordable soc rent																			
Aff sh oship																			
Units completed +3Q																			
Market housing																			
Affordable soc rent																			
Aff sh oship																			
Units purchased +4Q																			
Market housing																			
Affordable soc rent																			
Aff sh oship																			
TOTALS	105.0	30.0	15.0	150.0	105	30	15	150.0	105	30	15	150.0	105	30	15	150.0	105	30	15

SITE G5 CASH FLOW ALL MARKET HOUSING

	rate	Year 1				Year 2				Year 3				Year 4				TOTALS
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
INCOME																		
Housing sales		0	0	0	0	0	0	1,223	2,445	2,445	2,445	2,445	2,445	2,445	2,445	2,445	2,445	18,338
Market housing		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aff soc rent as mkt		0	0	0	0	0	0	349	699	699	699	699	699	699	699	699	699	5,239
Aff sh oship as mkt		0	0	0	0	0	0	175	349	349	349	349	349	349	349	349	349	2,620
Sales fees		0	0	0	0	0	0	-61	-122	-122	-122	-122	-122	-122	-122	-122	-122	-917
Total income		0	0	0	0	0	0	1,746	3,493	3,493	3,493	3,493	3,493	3,493	3,493	3,493	3,493	26,197
COSTS																		
Land		5,205																5,205
Land acquisition		208																208
Stamp duty		78																78
Purchase fees																		
Total		5,491																5,491
Build costs		0	0	0	0	439	877	877	877	877	877	877	877	877	877	877	877	6,578
Market housing		0	0	0	0	125	251	251	251	251	251	251	251	251	251	251	251	1,879
Aff soc rent as mkt		0	0	0	0	63	125	125	125	125	125	125	125	125	125	125	125	940
Aff sh oship as mkt		0	0	0	0	31	63	63	63	63	63	63	63	63	63	63	63	470
Build contingency	5.0%																	
Total		111	111	111	111	59	59	59	59	59	59	59	59	59	59	59	59	9,866
Dev costs		0	0	30	59													444
Upfront	4.5%																	
Build related	4.5%																	
Abnormals	0%																	0
Total		0	0	0	0	59	118	118	118	118	118	118	118	118	118	118	118	888
Fees		9	9	11	14													71
Fees on build costs	9.0%																	
Fees on dev costs	8.0%																	
Total		9	9	11	14	265	265	265	265	265	265	265	265	265	265	265	265	959
PG				133	265													1,988
Planning gain																		
Total		20	20	20	265	449	449	449	449	449	449	449	449	449	449	449	449	1,988
Other		£400																60
Planning		£400																60
Survey																		0
Marketing																		0
Total		0	0	0	0	0	0	61	122	122	122	122	122	122	122	122	122	917
Sales fees																		
Total costs		5,691	140	304	449	1,046	1,763	1,824	1,885	1,885	1,885	1,885	1,885	1,885	1,885	1,885	1,885	20,228
Net profit/loss from quarter		-5,691	-140	-304	-449	-1,046	-1,763	-77	1,608	1,608	1,937	1,937	1,937	1,937	3,371	0	0	5,969
Profit/loss bf from last quarter		0	-5,808	-6,070	-6,506	-7,098	-8,312	-10,283	-10,574	-9,151	-7,698	-6,216	-4,367	-2,481	909	4,368	4,368	
Cumulative profit/loss		-5,691	-5,948	-6,375	-6,955	-8,144	-10,075	-10,360	-8,966	-7,543	-6,090	-4,279	-2,431	890	4,279	4,368	4,368	
Interest	8.25%																	
Charged at		8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	0.00%
Total		-117	-123	-131	-143	-168	-208	-214	-185	-156	-126	-88	-50	18	88	0	0	-1,602
Cumulative developer profit carried forward to RV calc		-5,808	-6,070	-6,506	-7,098	-8,312	-10,283	-10,574	-9,151	-7,698	-6,216	-4,367	-2,481	909	4,368	4,368	4,368	

SITE S1: North Central Stroud

Input assumptions

Scenario & option

Affordable 30% = 20% social rented & 10% shared ownership at 25% share ZERO GRANT

Gloucestershire Councils

Site details

Site	S1 North Central Stroud	
Location	Stroud	
Area	ha	2.50
	acres	6.18
No dwgs		120
Density dw/ha		48.0

Dwellings

	no of dwgs	%	ave floor space gross sq ft	net sq ft	build cost per sq ft	sales value per sq ft
Market housing	84.0	70%	975	927	80.00	223.00
Affordable soc rent	24.0	20.0%	975	927	80.00	75.00
Aff sh oship	12.0	10.0%	975	927	80.00	121.00
Total	120.0	100%	117,000	111,240	£9,360,000	£20,379,168

Floorspace density = 18.007 net sq ft per acre

Contingency

allowance	5.00%
-----------	-------

Development costs

standard % build	10.0%
plus abnormals	1.0%
Total	11%

Design fees

on build costs	9.0%
on dev costs	8%

Planning gain

£ per dwelling	13,250
----------------	--------

77868
0
22248
0
11124
111240

Other costs

Planning	£ per dwelling	400
Survey	£ per dwelling	400
Marketing	£ per dwelling	0

Interest

% per annum	8.25%
-------------	-------

Notes

SITE S1 CASH FLOW AFFORDABLE

	rate	Year 1				Year 2				Year 3				Year 4				TOTALS
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
INCOME																		
Housing sales		0	0	0	0	0	0	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	17,365
Affordable soc rent		0	0	0	0	0	0	209	209	209	209	209	209	209	209	209	209	1,669
Aff sh oship		0	0	0	0	0	0	168	168	168	168	168	168	168	168	168	168	1,346
Sales fees		0	0	0	0	0	0	-79	-79	-79	-79	-79	-79	-79	-79	-79	-79	-630
Total income		0	0	0	0	0	0	2,547	2,547	2,547	2,547	2,547	2,547	2,547	2,547	2,547	2,547	20,379
COSTS																		
Land		1,971																1,971
Land acquisition		79																79
Stamp duty		30																30
Purchase fees																		
Total		0	0	0	0	0	0	819	819	819	819	819	819	819	819	819	819	2,079
Build costs		0	0	0	0	819	819	819	819	819	819	819	819	819	819	819	819	6,552
Market housing		0	0	0	0	234	234	234	234	234	234	234	234	234	234	234	234	1,872
Affordable soc rent		0	0	0	0	117	117	117	117	117	117	117	117	117	117	117	117	936
Aff sh oship		0	0	0	0	59	59	59	59	59	59	59	59	59	59	59	59	468
Build contingency	5.0%	0	0	0	0													9,828
Total		123	123	123	123	61	61	61	61	61	61	61	61	61	61	61	61	491
Dev costs		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	491
Upfront	5.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Build related	5.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,083
Abnormals	1%	50	50	50	50	5	5	5	5	5	5	5	5	5	5	5	5	885
Total		0	0	0	0	111	111	111	111	111	111	111	111	111	111	111	111	87
Fees		14	14	15	15	199	199	199	199	199	199	199	199	199	199	199	199	971
Fees on build costs	9.0%																	1,590
Fees on dev costs	8.0%																	1,590
Total		16	16	16	16	0	0	0	0	0	0	0	0	0	0	0	0	48
PG		48	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
Planning gain																		0
Total		16	16	16	16	199	199	199	199	199	199	199	199	199	199	199	199	96
Other		48	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
Planning	£400																	0
Survey	£400																	0
Marketing	£0																	0
Total		0	0	0	0	0	0	79	79	79	79	79	79	79	79	79	79	630
Sales fees		2,330	203	414	398	1,604	1,604	1,683	1,683	1,683	1,418	1,418	1,418	1,418	1,418	1,418	1,418	16,277
Total costs		2,330	203	414	398	1,604	1,604	1,683	1,683	1,683	1,418	1,418	1,418	1,418	1,418	1,418	1,418	16,277
Net profit/loss from quarter		-2,330	-203	-414	-398	-1,604	-1,604	865	865	865	1,130	1,130	1,130	1,130	2,469	2,469	0	4,102
Profit/loss bf from last quarter		0	-2,378	-2,634	-3,111	-3,581	-5,292	-7,038	-6,301	-6,301	-3,996	-2,926	-2,926	-2,926	-1,833	649	3,182	3,182
Cumulative profit/loss		-2,330	-2,581	-3,048	-3,508	-5,185	-6,896	-6,174	-5,436	-5,436	-4,684	-3,916	-2,867	-1,796	636	3,118	3,182	3,182
Interest	8.25%	48	53	63	72	107	142	127	112	112	82	65	58	52	46	40	34	28
Charged at	8.25%																	
Total		-48	-53	-63	-72	-107	-142	-127	-112	-112	-97	-81	-69	-57	13	64	0	-921
Cumulative developer profit carried forward to RV calc		-2,378	-2,634	-3,111	-3,581	-5,292	-7,038	-6,301	-5,548	-4,780	-3,996	-2,926	-1,833	649	3,182	3,182	3,182	3,181

SITE S1 CASH FLOW ALL MARKET HOUSING

	rate	Year 1				Year 2				Year 3				Year 4				TOTALS
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
INCOME																		
Housing sales	Market housing	0	0	0	0	0	0	2,171	2,171	2,171	2,171	2,171	2,171	2,171	2,171	0	0	17,365
	Aff soc rent as mkt	0	0	0	0	0	0	620	620	620	620	620	620	620	620	0	0	4,961
	Aff sh oship as mkt	0	0	0	0	0	0	310	310	310	310	310	310	310	310	0	0	2,481
	Sales fees	0	0	0	0	0	0	-109	-109	-109	-109	-109	-109	-109	-109	0	0	-868
Total income		0	0	0	0	0	0	3,101	3,101	3,101	3,101	3,101	3,101	3,101	3,101	0	0	24,807
COSTS																		
Land	Land acquisition	4,566																4,566
	Stamp duty	183																183
	Purchase fees	68																68
	Total	4,817																4,817
Build costs	Market housing	0	0	0	0	819	819	819	819	819	819	819	819	819	819	0	0	6,552
	Aff soc rent as mkt	0	0	0	0	234	234	234	234	234	234	234	234	234	234	0	0	1,872
	Aff sh oship as mkt	0	0	0	0	117	117	117	117	117	117	117	117	117	117	0	0	936
	Build contingency	0	0	0	0	59	59	59	59	59	59	59	59	59	59	0	0	468
	Total	123	123	123	123	61	61	61	61	61	61	61	61	61	61	0	0	9,828
Dev costs	Upfront	0	0	61	61													491
	Build related	50	50															491
	Abnormals																	100
	Total	14	14	15	15	111	111	111	111	111	111	111	111	111	111	0	0	1,083
Fees	Fees on build costs	0	0	0	0	5	5	5	5	5	5	5	5	5	5	0	0	885
	Fees on dev costs	14	14	15	15	199	199	199	199	199	199	199	199	199	199	0	0	87
	Total	16	16	16	16	203	203	203	203	203	203	203	203	203	203	0	0	971
PG	Planning gain																	1,590
	Total	16	16	16	16	1,604	1,604	1,604	1,604	1,604	1,604	1,604	1,604	1,604	1,604	0	0	1,590
Other	Planning	48	48															48
	Survey																	48
	Marketing																	0
	Total	0	0	0	0	109	109	109	109	109	109	109	109	109	109	109	109	96
Sales fees	b/forward from above	5,068	203	414	398	1,604	1,604	1,713	1,713	1,713	1,448	1,448	1,448	1,448	1,09	109	0	868
Total costs		5,068	203	414	398	1,604	1,604	1,713	1,713	1,713	1,448	1,448	1,448	1,448	109	109	0	19,253
Net profit/loss from quarter		-5,068	-203	-414	-398	-1,604	-1,604	1,388	1,388	1,388	1,653	1,653	1,653	1,653	2,992	2,992	0	5,553
Profit/loss bf from last quarter		0	-5,172	-5,486	-6,021	-6,551	-8,323	-10,132	-8,924	-7,692	-6,433	-5,149	-3,568	-1,954	1,059	4,135	4,135	
Cumulative profit/loss		-5,068	-5,375	-5,900	-6,419	-8,155	-9,928	-8,744	-7,536	-6,304	-5,045	-3,496	-1,915	1,038	4,052	4,135	4,135	
Interest	Charged at	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	0.00%	0.00%	
	Total	-105	-111	-122	-132	-168	-205	-180	-155	-130	-104	-72	-39	21	84	0	0	-1,419
Cumulative developer profit carried forward to RV calc		-5,172	-5,486	-6,021	-6,551	-8,323	-10,132	-8,924	-7,692	-6,433	-5,149	-3,568	-1,954	1,059	4,135	4,135	4,135	

SITE S3: South Central Stroud

Input assumptions **Scenario & option** Affordable 30% = 20% social rented 10% shared ownership

Gloucestershire Councils

Site details		Dwellings		ave floor space		build		sales	
Site	S3 South Central Stroud	Market housing	73.5	gross sq ft	636	net sq ft	535	per sq ft	105.00
Location	Stroud	Affordable soc rent	21.0	sq ft	636	sq ft	535	per sq ft	0.0%
Area	0.44	Affordable sh oship	10.5	sq ft	636	sq ft	535	per sq ft	0.0%
	ha	Office	1.0	sq ft	37,665	sq ft	31,654	per sq ft	95.00
	acres	Other	3.0	sq ft	4,372	sq ft	3,675	per sq ft	95.00
No dwgs	109	Total	109.0	sq ft	117,655	sq ft	98,933	per sq ft	£11,845,056
Density dw/ha	247.7								£20,206,853

Contingency allowance 5.00%

Development costs standard % build 5.50%

684

plus abnormals 6.0%

746

Other costs

Planning 400 £ per dwelling

Survey 200 £ per dwelling

Marketing 0 £ per dwelling

Design fees on build costs 9.0%

on dev costs 8%

Interest % per annum 8.25%

Planning gain £ per dwelling 12,500

Floorspace density = 90,995 net sq ft per acre

Notes

SITE S3 LAND COST & PHASING

Land	
Iterate to achieve 20.0% profit	
	Hectare
	Affordable No affordable
Land purchase price	£ -552,337 £ 794,753
RV per acre	£ -508,017 £ 730,982 £ -1,255,311 £ 1,806,257
Dev profit	£ 3,155,321 £ 3,799,365
Total costs	£ 17,052,439 £ 18,992,607
profit as % of costs	18.50% 20.00%

Programme	Year 1				Year 2				Year 3				Year 4				TOTALS				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4					
Units started																					
Market housing	0	0	0	26.3	23.6	0.0	23.6	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	73.5
Affordable soc rent				7.5	6.7	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0
Affordable sh oship				3.8	3.4	0.0	3.4	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	10.5
Office				0.4	0.3	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	1.0
Other				1.1	1.0	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	3.0
TOTAL	0	0	0	39	35	0	35	0	0	0	0	0	0	0	0	0	0	0	0	0	109.0
Units 'built' +2Q																					
Market housing	0	0	0	0	0	26	24	0	24	0	0	0	0	0	0	0	0	0	0	0	73
Affordable soc rent				0	0	8	7	0	7	0	0	0	0	0	0	0	0	0	0	0	21
Affordable sh oship				0	0	4	3	0	3	0	0	0	0	0	0	0	0	0	0	0	10
Office				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Other				0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	3
Units completed +3Q																					
Market housing	0	0	0	0	0	0	26	24	0	24	0	0	0	0	0	0	0	0	0	0	73
Affordable soc rent				0	0	0	8	7	0	7	0	0	0	0	0	0	0	0	0	0	21
Affordable sh oship				0	0	0	4	3	0	3	0	0	0	0	0	0	0	0	0	0	10
Office				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Other				0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	3
Units purchased +4Q																					
Market housing	0	0	0	0	0	0	0	26	24	0	24	0	24	0	0	24	0	0	0	0	73
Affordable soc rent				0	0	0	0	8	7	0	7	0	7	0	0	7	0	0	0	0	21
Affordable sh oship				0	0	0	0	4	3	0	3	0	3	0	0	3	0	0	0	0	10
Office				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Other				0	0	0	0	1	1	0	1	0	1	0	0	1	0	0	0	0	3

SITE S4: Cainscross

Input assumptions

Scenario & option

Affordable 30% = 20% social rented & 10% shared ownership at 25% share ZERO GRANT

Gloucestershire Councils

Site details

Site	S4 Cainscross
Location	Stroud
Area	0.32 ha
	0.79 acres
No dwgs	14
Density dw/ha	43.8

Dwellings

	no of dwgs	%	ave floor space gross sq ft	net sq ft	build cost per sq ft	sales value per sq ft
0.55 Market housing	9.8	70%	893	875	76.00	217.00
0.16 Affordable soc rent	2.8	20.0%	893	875	76.00	74.00
0.08 Aff sh oship	1.4	10.0%	893	875	76.00	120.00
Total	14.0	100%	12,502	12,250	£950,152	£2,189,075

net:gross= 98%

Floorspace density = 15,492 net sq ft per acre

Contingency

allowance 5.00%

8575

0

2450

0

1225

12250

Development costs

standard % build 9.5%

£ per dwelling

400

£ per dwelling

400

£ per dwelling

0

10%

Design fees

on build costs 9.0%

on dev costs 8%

Interest

% per annum 8.25%

Notes

Planning gain

£ per dwelling 8,000

SITE S5: Stone

Input assumptions

Scenario & option

Affordable 30% = 20% social rented 10% shared ownership

Gloucestershire Councils

Site details

Site	S5 Stone
Location	Stone
Area	0.94 ha
	2.32 acres
No dwgs	12
Density dw/ha	12.8

Dwellings

Dwellings	ave floor space gross sq ft	net sq ft	build cost per sq ft	sales value per sq ft
Market housing	1,129	1,129	75.00	260.00
Affordable soc rent	1,129	1,129	75.00	73.00
Affordable sh oship	1,129	1,129	75.00	120.00
Public house	3,410	3,410	75.00	300.00
Refurbished cottages	722	722	65.00	250.00
Total	15,015	15,015	£1,111,685	£3,503,585

Contingency

allowance 3.75%



Development costs

standard % build 9.0%



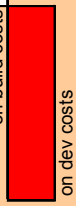
plus abnormals 0.0%



Total 9%

Design fees

on build costs 10.0%



on dev costs 8%

Planning gain

£ per dwelling 7.750

Floorspace density = 6.464 net sq ft per acre



Other costs

Planning 400 £ per dwelling



Survey 200 £ per dwelling



Marketing 0 £ per dwelling



Interest

% per annum 8.25%



Notes

--

SITE S5 LAND COST & PHASING

Land		Iterate to achieve 20.0% profit		Hectare	
	Affordable	No affordable	Affordable	No affordable	
Land purchase price	£ 1,096,609	£ 1,376,441			
RV per acre	£ 472,119	£ 592,594	£ 1,166,605	£ 1,464,299	
Dev profit	£ 547,161	£ 671,141			
Total costs	£ 2,957,167	£ 3,355,462			
profit as % of costs	18.50%	20.00%			

Programme	Year 1				Year 2				Year 3				Year 4				TOTALS
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Units started																	
Market housing			1.1	2.6		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			0.3	0.8		0.8	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	1.8
Affordable sh oship			0.2	0.4		0.4	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.9
Affordable other A			0.2	0.4		0.4	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	1.0
Affordable other B			0.3	0.8		0.8	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	2.0
TOTAL	0	0	2	5	5	0	0	0	0	0	0	0	0	0	0	0	12.0
Units 'built' +2Q																	
Market housing			0	0		1	3	3	0		0	0	0	0	0	0	6
Affordable soc rent			0	0		0	1	1	0		0	0	0	0	0	0	2
Affordable sh oship			0	0		0	0	0	0		0	0	0	0	0	0	1
Affordable other A			0	0		0	0	0	0		0	0	0	0	0	0	1
Affordable other B			0	0		0	1	1	0		0	0	0	0	0	0	2
Units completed +3Q																	
Market housing			0	0		0	1	3	3		0	0	0	0	0	0	6
Affordable soc rent			0	0		0	0	1	1		0	0	0	0	0	0	2
Affordable sh oship			0	0		0	0	0	0		0	0	0	0	0	0	1
Affordable other A			0	0		0	0	0	0		0	0	0	0	0	0	1
Affordable other B			0	0		0	0	1	1		0	0	0	0	0	0	2
Units purchased +4Q																	
Market housing			0	0		0	0	1	3		3	0	0	0	0	0	6
Affordable soc rent			0	0		0	0	0	1		1	0	0	0	0	0	2
Affordable sh oship			0	0		0	0	0	0		0	0	0	0	0	0	1
Affordable other A			0	0		0	0	0	0		0	0	0	0	0	0	1
Affordable other B			0	0		0	0	0	1		1	0	0	0	0	0	2

SITE T1: Churchdown

Input assumptions

Scenario & option

Affordable 30% = 20% social rented & 10% shared ownership at 25% share ZERO GRANT

Gloucestershire Councils

Site details

Site	T1 Churchdown
Location	Churchdown
Area	ha 1.22
	acres 3.01
No dwgs	60
Density dw/ha	49.2

Dwellings

2.11	Market housing	no of dwgs 42.0	% 70%	ave floor space gross sq ft 964	net sq ft 955	build cost per sq ft 78.50	sales value per sq ft 216.00	40,488
0.60	Affordable soc rent	12.0	20.0%	964	955	78.50	69.00	11,568
0.30	Aff sh oship	6.0	10.0%	964	955	78.50	118.00	5,784
	Total	60.0	100%	57,840	57,300	£4,540,440	£10,130,640	57,840

Floorspace density = 19.007 net sq ft per acre

Contingency

allowance	3.75%
-----------	-------

Development costs

standard % build	10.0%
plus abnormals	0.0%
Total	10%

Design fees

on build costs	9.0%
on dev costs	7.5%

Planning gain

£ per dwelling	11,500
----------------	--------

40110
0
11460
0
5730
57300

Other costs

Planning	£ per dwelling	400
Survey	£ per dwelling	400
Marketing	£ per dwelling	0

Interest

% per annum	8.25%
-------------	-------

Notes

SITE T3: Stoke Orchard

Input assumptions

Scenario & option

Affordable 30% = 20% social rented & 10% shared ownership at 25% share ZERO GRANT

Gloucestershire Councils

Site details

Site	T3 Stoke Orchard
Location	Stoke Orchard
Area	0.69 ha
	1.70 acres
No dwgs	10
Density dw/ha	14.5

Dwellings

	no of dwgs	%	ave floor space gross sq ft	net sq ft	build cost per sq ft	sales value per sq ft
1.19 Market housing	7.0	70%	1,534	1,534	78.00	250.00
0.34 Affordable soc rent	2.0	20.0%	1,534	1,534	78.00	69.00
0.17 Aff sh oship	1.0	10.0%	1,534	1,534	78.00	118.00
Total	10.0	100%	15,340	15,340	£1,196,520	£3,077,204

Floorspace density = 8.997 net sq ft per acre

Contingency

allowance 2.50%

10738
0
3068
0
1534
15340

Development costs

standard % build 9.0%

£ per dwelling

plus abnormal 0.0%

£ per dwelling

Total 9%

£ per dwelling

Design fees

on build costs 9.0%

£ per dwelling

on dev costs 8%

£ per dwelling

Planning gain

£ per dwelling 8,000

Interest
% per annum 8.25%

Notes

SITE T5: Newtown

Input assumptions

Scenario & option

Affordable 30% = 20% social rented & 10% shared ownership at 25% share ZERO GRANT

Gloucestershire Councils

Site details

Site	T5 Newtown
Location	Tewkesbury
Area	0.77
ha	1.90
acres	33
No dwgs	42.9
Density dw/ha	

Dwellings

	no of dwgs	%	ave floor space gross sq ft	net sq ft	build cost per sq ft	sales value per sq ft
1.33 Market housing	23.1	70%	857	839	78.50	213.00
0.38 Affordable soc rent	6.6	20.0%	857	839	78.50	69.00
0.19 Aff sh oship	3.3	10.0%	857	839	78.50	117.00
Total	33.0	100%	28,281	27,687	£2,220,059	£4,834,150

net:gross= 98%

Floorspace density = 14,552 net sq ft per acre

Contingency

allowance 2.50%

Other costs

Planning	400	£ per dwelling
Survey	200	£ per dwelling
Marketing	0	£ per dwelling
Interest	8.25%	% per annum

Development costs

standard % build 10.0%

19380.9	
0	
5537.4	
0	
2768.7	
27687	

plus abnormal 0.0%

0

Total

10%

Design fees

on build costs 9.0%

Planning gain

8%

8.750

Notes

SITE T6: Tewkesbury

Input assumptions

Scenario & option

Affordable 30% = 20% social rented 10% shared ownership

Gloucestershire Councils

Dwellings

Site details

Site	T6 Bredon Rd
Location	Tewkesbury
Area	8.00 ha
No dwgs	19.77 acres
Density dw/ha	255
	31.9

	Market housing	Affordable soc rent	Affordable sh oship	Affordable other A	Affordable other B	Total
ave floor space gross sq ft	1,039	1,039	1,039	1,039	1,039	264,945
net sq ft	1,008	1,008	1,008	1,008	1,008	257,040
build cost per sq ft	76.00	76.00	76.00	76.00	76.00	£20,135,820
sales value per sq ft	206.00	71.00	120.00	0.00	0.00	£43,799,616
	70%	20%	10%	0%	0%	100%
	178.5	51.0	25.5	0.0	0.0	255.0
						100%

Contingency

allowance 2.50%



Development costs

standard % build 15%



plus abnormals 0.0%



Total 15%

Design fees

on build costs 9.0%



on dev costs 8%



Planning gain

£. per dwelling 14,000



Floorspace density = 13.003 net sq ft per acre



Other costs

Planning 400 £. per dwelling



Survey 200 £. per dwelling



Marketing 0 £. per dwelling



Interest

% per annum 8.25%



Notes

--

