Wiltshire Local
Development
Framework

Wiltshire Housing Site Allocations Plan

Pre-submission draft plan

Viability Assessment

June 2017

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Wiltshire Housing Site Allocations Development Plan Document (DPD) - Assessment of Viability

Prepared for

Wiltshire Council

May 2017

Contents

1 Introduction

1.1.1 This report tests the ability of a range of development typologies identified by Wiltshire Council to be viably developed over the 2015 Wiltshire Core Strategy (WCS) plan period which runs to 2026 for the purpose of supporting the Wiltshire Housing Site Allocations plan.

1.1.2 The study takes account of the cumulative impact of the Council's current planning requirements, in line with the requirements of the National Planning Policy Framework ('NPPF') and the Local Housing Delivery Group guidance '*Viability Testing Local Plans: Advice for planning practitioners*'. While the study takes account of all plan policies and Community Infrastructure Levy, it focuses on the Council's requirements for affordable housing and tests 40% affordable housing which is the higher rate of affordable housing set out in Core Policy 43 of the Wiltshire Core Strategy.

1.1.3 Recent forecasts for future house price growth predict a continued increase over a 5 year period from 2017 in the south west housing markets albeit at reduced level to forecasts prior to the EU Referendum. Consequently, there is a degree of market uncertainty following the result of the referendum and the UK's impending withdrawal from the EU. However, as the WCS covers a period which runs to 2026, we have undertaken a sensitivity analysis to determine the potential viability outcomes of development typologies when sales values and construction costs are increased; and when sales values are reduced.

1.1.4 This analysis is indicative only, but is intended to assist the Council in understanding the broad viability of its proposed housing site allocations in terms of their ability to accommodate typical development costs and local plan policy requirements (e.g. affordable housing expectations). This assessment is therefore proportionate and presented on a high level and current day basis.

1.1.5 The main section of this report constitutes a study of a range development typologies, Our assessment makes overall judgements with regards to the viability of each typology and does not account for more detailed site specific attributes that may impact upon development viability. Due to the extent and range of financial variables involved in residual valuations, they can only ever serve as a guide. This is recognised within Section 2 of the Local Housing Delivery Group[1] guidance, which identifies the purpose and role of viability assessments within plan-making. The Guidance notes:

"The role of the test is not to give a precise answer as to the viability of every development likely to take place during the plan period. No assessment could realistically provide this level of detail. Some site specific tests are still likely to be required at the development management stage. Rather, it is to provide high level assurance that the policies within the plan are set in a way that is compatible with the likely economic viability of development needed to deliver the plan".

1.1.6 This Council's proposed allocations range in size and complexity. Therefore, in order to provide additional support to the Plan, detailed testing has been undertaken on one large site that has a particular infrastructure requirement specified in the proposed policies. This site is Netherhampton Road in Salisbury.

[1] 'Viability Testing Local Plans: Advice for planning practitioners' August 2012. This group was led by the Homes and Communities Agency and comprises representatives from the National Home Builders Federation, the Royal Town Planning Institute, Local Authorities and valuers (including BNP Paribas Real Estate)

Key Findings

The key findings of the study are as follows:

- The results of this study are reflective of current market conditions, which may inevitably change over the medium term. It is therefore important that the Council keeps the viability situation under review so that policy requirements can be adjusted should conditions change markedly. We have modelled a sensitivity analysis on each of the development typologies with increases/reductions to market housing values and construction costs in order to demonstrate viability on schemes in differing market conditions.

- The typologies we have modelled across the HMAs can accommodate the Council's affordable housing requirement of 40% affordable housing with a policy compliant tenure mix of 70% affordable rented and 30% shared ownership units. It is important to stress that the typology appraisal results are based upon a specific unit mix and generic assumptions and as a result an alternative scheme may render different results.

- In summary, our development typology appraisals indicate that 40% affordable housing is supportable, however, there will inevitably be a degree of negotiation when site specific schemes come forward through the planning process due to scheme-specific factors that cannot be determined in a high level assessment of generic development typologies. This issue is, however, adequately addressed through planning policy measures that are in place that recognise that the actual amounts of affordable housing delivered on individual schemes may vary when scheme-specific viability issues emerge.

- Our assessment of Netherhampton Road which has been identified by the Council as a strategic site demonstrates that this site can support 40% affordable housing in addition to infrastructure requirements comprising payments towards education and road infrastructure.

2 Methodology

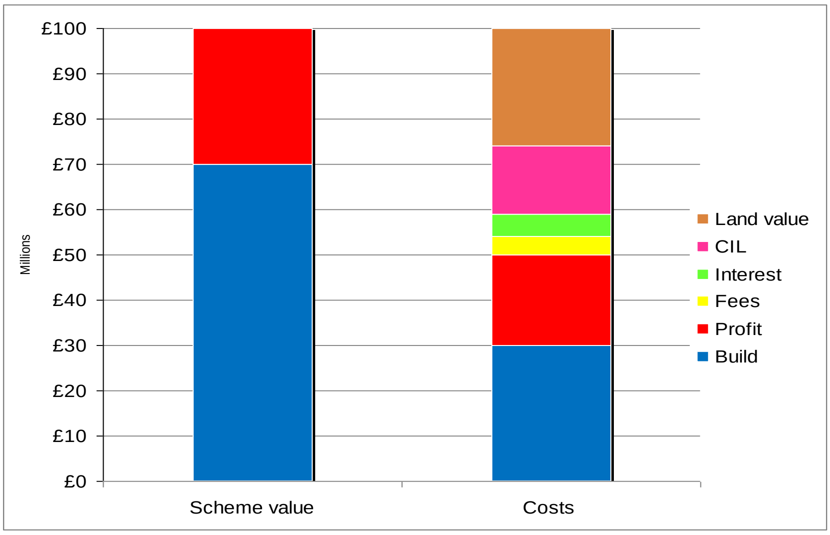
2.1.1 Our methodology follows standard development appraisal conventions, using development typologies and assumptions that reflect local market and planning policy circumstances. The study is therefore specific to Wiltshire Council and reflects the Council's existing and planning policy requirements.

Approach to testing development viability

2.1.2 The study methodology compares the residual land values generated by a series of development typologies that are reflective of the types of development expected to come forward over the plan period to a range of 'benchmark land values'. The typology approach has been found by examiners to be sound in a significant number of studies and examples include over 50 CIL viability studies we have undertaken in addition to Wiltshire Council CIL, London Borough of Hounslow Local Plan, Welwyn Hatfield Local Plan and Brighton and Hove City Council Local Plan.

2.1.3 In summary, if a development incorporating the Council's policy requirements generates a higher residual land value than the benchmark land value, then it can be judged that the site is viable and deliverable. Following the adoption of policies, developers will need to reflect policy requirements in their bids for sites, in line with requirements set out in the RICS Guidance on 'Financial Viability in Planning'[2].

2.1.4 The study utilises the residual land value method of calculating the value of each development. This method is used by developers when determining how much to bid for land and involves calculating the value of the completed scheme and deducting development costs (construction, fees, finance, sustainability requirements and CIL) and developer's profit. The residual amount is the sum left after these costs have been deducted from the value of the development, and guides a developer in determining an appropriate offer price for the site. Appraisal models can be summarised via the following diagram. The total scheme value is calculated, as represented by the left hand bar. This includes the sales receipts from the private housing and the payment from a Registered Provider ('RP') for the completed affordable housing units. The model then deducts the build costs, fees, interest, CIL (at varying levels) and developer's profit. A 'residual' amount is left after all these costs are deducted – this is the land value that the Developer would pay to the landowner. The residual land value is represented by the brown portion of the right hand bar in the diagram.



2 This guidance notes that when considering site-specific viability "*Site Value should equate to the market value subject to the following assumption: that the value has regard to development plan policies and all other material planning considerations and disregards that which is contrary to the development plan*". Providing therefore that Site Value does not fall below a site's existing use value, there should be no reason why policy requirements cannot be achieved.

2.1.5 The Residual Land Value is normally a key variable in determining whether a scheme will proceed. If a proposal generates sufficient positive land value (in excess of current use value), it will be implemented. If not, the proposal will not go ahead, unless there are alternative funding sources to bridge the 'gap'.

2.1.6 Ultimately, the landowner will make a decision on implementing a project on the basis of return and the potential for market change, and whether alternative developments might yield a higher value. The landowner's 'bottom line' will be achieving a residual land value that sufficiently exceeds 'existing use value' or another appropriate benchmark to make development worthwhile. The margin above current use value may be considerably different on individual sites due to particular reasons why the premium to the landowner should be higher or lower than other sites.

2.1.7 Clearly, however, landowners have expectations of the value of their land which will often exceed the value of the sites' current use. Ultimately, if landowners' expectations are not met, they will not voluntarily sell their land and (unless a Local Authority is prepared to use its compulsory purchase powers) some may simply hold on to their sites, in the hope that policy may change at some future point with reduced requirements. It is within the scope of those expectations that developers have to formulate their offers for sites. The task of formulating an offer for a site is complicated further still during buoyant land markets, where developers have to compete with other developers to secure a site, often speculating on increases in development value or with the expectation of value engineering costs.

Viability Benchmark

2.1.8 The NPPF does not prescribe any particular methodology for assessing the viability of developments in their areas for testing local plan policies. The Local Housing Delivery Group guidance (June 2012) on testing viability of local plan policies notes that *"consideration of an appropriate Threshold Land Value [or viability benchmark] needs to take account of the fact that future plan policy requirements will have an impact on land values and landowner expectations. Therefore, using a market value approach as the starting point carries the risk of building-in assumptions of current policy costs rather than helping to inform the potential for future policy".* The RICS Guidance Note 'Viability in Planning' (August 2012) which advocates market value as a benchmark for testing viability, is therefore not applicable to a test of planning policy.

2.1.9 In light of the weaknesses in the market value approach, the Local Housing Delivery Group guidance recommends that benchmark land value *"is based on a premium over current use values"* with the *"precise figure that should be used as an appropriate premium above current use value [being] determined locally*". The guidance considers that this approach "is in line with reference in the NPPF to take account of a "competitive return" to a willing land owner".

2.1.10 The examination on the Mayor of London's CIL charging schedule considered the issue of an appropriate land value benchmark. The Mayor had adopted current use value, while certain objectors suggested that 'Market Value' was a more appropriate benchmark. The Examiner concluded that:

"The market value approach….while offering certainty on the price paid for a development site, suffers from being based on prices agreed in an historic policy context." (para 8) and that "I don't believe that the EUV approach can be accurately described as fundamentally flawed or that this examination should be adjourned to allow work based on the market approach to be done" (para 9).

In his concluding remark, the Examiner points out that:

"the price paid for development land may be reduced [so that CIL may be accommodated. As with profit levels there may be cries that this is unrealistic, but a reduction in development land value is an inherent part of the CIL concept. It may be argued that such a reduction may be all very well in the medium to long term but it is impossible in the short term because of

the price already paid/agreed for development land. The difficulty with that argument is that if accepted the prospect of raising funds for infrastructure would be forever receding into the future. In any event in some instances it may be possible for contracts and options to be re-negotiated in the light of the changed circumstances arising from the imposition of CIL charges". (para 32 – emphasis added).

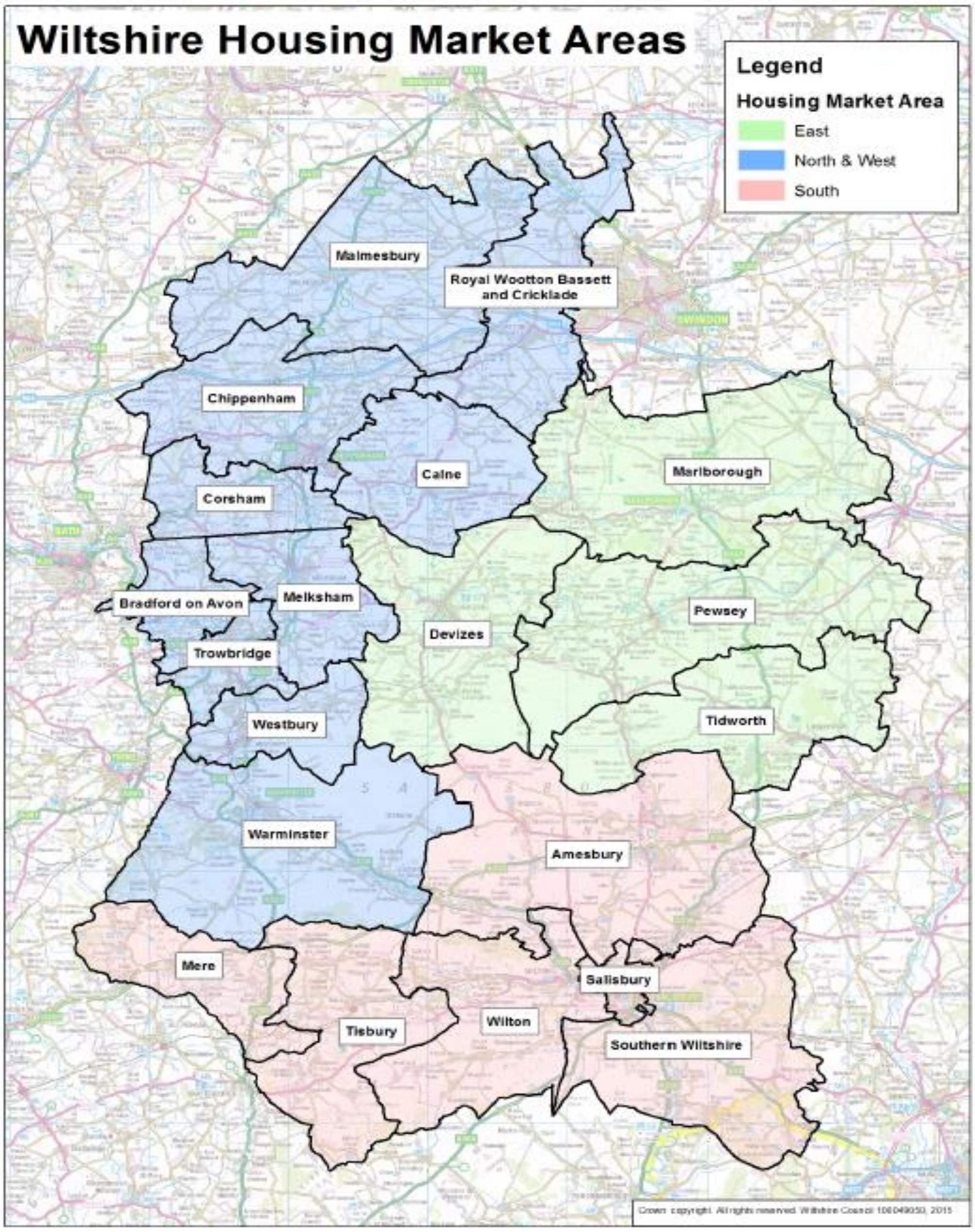
2.1.11 It is important to stress, however, that there is no single threshold land value at which land will come forward for development. The decision to bring land forward will depend on the type of owner and, in particular, whether the owner occupies the site or holds it as an asset; the strength of demand for the site's current use in comparison to others; how offers received compare to the owner's perception of the value of the site, which in turn may be influenced by prices achieved by other sites. Given the lack of a single threshold land value, it is difficult for policy makers to determine the minimum land value that sites should achieve. This will ultimately be a matter of judgement for each individual Planning Authority.

3 Development Appraisals

Our assumptions adopted for the development appraisals are set out in the following section.

3.1 Housing Market Areas

3.1.1 We have been provided with details of the housing market areas (HMAs) that form the basis of this study and comprise East HMA, North and West HMA and South HMA. We set out below a map which highlights the HMAs in the context of Wiltshire.



Source: Wiltshire Housing Site Allocations Development Plan Document Informal consultation on initial site options - Housing supply paper February 2015

3.2 Development Typologies

3.2.1 A range of development typologies have been formulated in discussions with the Council. These development typologies have been established through an analysis of built or extant planning permissions across each Housing Market Area (HMA). The analysis covers the period 2009/10 to 2015/16. These time frames were chosen by the Council as earlier time periods (2006/07 and 2008/09) only recorded dwellings, not flats and/or houses and would have compromised the determination of a unit mix. Therefore, in determining 'typical' development typologies across all three HMAs, the Council used a cluster analysis approach using ESRI ArcGIS mapping tools and the natural breaks (Jenks) optimisation method. In undertaking this level of analysis on past/current build out patterns across Wiltshire's three HMAs, the Council have been able to demonstrate that housing developments typically fall into four site size classes. The characteristics of these development typologies are summarised in Tables 3.2.1, 3.2.2 and 3.2.3.

Table 3.2.1: East HMA Development Typologies

Site Size Class (number of units)	Typology Tested (number of units)	Typology Size (hectares)	Density (units per hectare)
Class 1: 1 – 18	10	0.64	15
Class 2: 19 – 51	35	1.24	28
Class 3: 52 – 138	95	2.58	37
Class 4: 139 +	225	6.75	33

Table 3.2.2: North & West HMA Development Typologies

Site Size Class (number of units)	Typology Tested (number of units)	Typology Size (hectares)	Density (units per hectare)
Class 1: 0 – 25	13	0.53	25
Class 2: 26 – 70	48	1.60	30
Class 3: 71 – 129	100	3.02	33
Class 4: 130 +	276	9.41	29

Table 3.2.3: South HMA Development Typologies

Site Size Class (number of units)	Typology Tested (number of units)	Typology Size (hectares)	Density (units per hectare)
Class 1: 1 – 25	13	0.40	32
Class 2: 26 – 100	63	1.77	35
Class 3: 101 – 170	136	4.28	32
Class 4: 171 +	336	10.08	33

3.3 HMA Unit mixes

3.3.1 The Council has provided us with indicative unit mixes which we have applied to each of the typologies tabulated above based upon completed and commenced planning permissions from 2009 to 2015 in the HMAs. We tabulate in the tables below the unit mixes adopted for each HMA and the postcodes that falls within these HMAs. For the purpose of this assessment we have assumed that the typologies of less than 15 units will comprise of houses.

Table 3.3.1: East HMA Unit mixes

Site Size Class	Typology Tested (number of units)	Unit Mix (% Flats)	Unit Mix (% Houses)
Class 1: 1 – 18	10	-	100%
Class 2: 19 – 51	35	-	100%
Class 3: 52 – 138	95	26%	74%
Class 4: 139 +	225	12%	88%

Table 3.3.2: North and West HMA Unit mixes

Site Capacity (units)	Typology Tested (number of units)	Unit Mix (% Flats)	Unit Mix (% Houses)
Class 1: 0 – 19	13	-	100%
Class 2: 20 – 62	48	27%	73%
Class 3: 63 – 129	100	20%	80%
Class 4: 130 +	276	29%	71%

Table 3.3.3: South HMA Unit mixes

Site Capacity (units)	Typology Tested (number of units)	Unit Mix (% Flats)	Unit Mix (% Houses)
Class 1: 0 – 31	13	-	100%
Class 2: 32 – 100	63	21%	79%
Class 3: 101 – 170	136	10%	90%
Class 4: 171 +	336	15%	85%

3.4 Unit Sizes

3.4.1 We have adopted the unit sizes tabulated in Table 3.4.1 having regard to the DCLG's national space standards[3].

Table 3.4.1: Average Unit Sizes

Unit Type	Average Floor Area (sq/m)
Detached House	120
Semi-Detached House	100
Terraced House	80
Flat	60

[3] Department for Communities and Local Government 'Technical Housing Standards – Nationally described space standard' March 2015

3.5 Project Programme

3.5.1 We have assumed that market housing sales rates would correlate with the anticipated build out rates over the course of the construction programme with a post practical completion sales period for each typology. However, for the typologies under 15 units we have assumed that the unit sales will commence from practical completion.

3.5.2 Development sales periods vary between the types of scheme being delivered. However, our sales periods are based upon an average sales rate of 4 per month. However, we have assumed that the larger typologies in excess of 171 units will have more than one sales and marketing outlet each targeting different markets which would increase the sales rate to 8 per month. In terms of the affordable housing units, we have assumed the developers will seek contracts with RPs for the disposal of the affordable housing prior to commencement of construction. The disposal price for the affordable housing is assumed to be received in tranches across the construction programme.

3.6 Market Housing Sales Values

3.6.1 In arriving at sales values for the market housing units, we have had regard to sale prices from the Land Registry database and we have extracted sold price data for both new build and second hand sales within the HMAs over the past twelve months. The Land Registry has recorded 649 new build sales and 6,563 second hand sales over the last twelve months across the HMAs combined. We have analysed and allocated these sale transactions into the corresponding HMA.

3.6.2 Whilst we have had regard to sales transactions, data on unit floor areas is not available. As a result, we have therefore adopted average net internal unit areas of 120 square metres for detached houses; 100 square metres for semi-detached houses; 80 square metres for terraced houses; and 60 square metres for flats as set out in Table 3.4.1. By dividing the prices paid by these average floor areas, it is possible to arrive at indicative values for each HMA, but it is important to recognise that average values per square metre may vary if unit sizes are significantly different from our assumed unit areas.

3.6.3 We tabulate below in Table 3.6.3 the average capital values per sq/m from our analysis of for new build properties derived from our analysis within each HMA. We also tabulate in Table 3.6.4 the average capital values per sq/m from our analysis of sales of second hand properties in each HMA.

Table 3.6.3: New Build Average Sales Values in each HMA

HMA	Average Sales Value for Houses (£ per sq/m)	Average Sales Value for Flats (£ per sq/m)
East	£3,633	£3,262
North & West	£2,815	£2,321
South	£3,205	£3,115

Table 3.6.4 Second-hand Average Sales Values in each HMA

HMA	Average Sales Value for Houses (£ per sq/m)	Average Sales Value for Flats (£ per sq/m)
East	£2,828	£2,428
North & West	£2,536	£2,132
South	£3,022	£2,894

3.6.4 We have had regard to the new build and second-hand sales tabulated above and highlight that c. 70% of the new build sales transactions we have considered have transacted in 2015. As a result, there will be a significant number of transactions that will not have benefited from capital value growth in value from 2015 to 2017.

3.6.5 We have therefore had regard to the Land Registry House Price index which shows that sales values increased across the Wiltshire by c. 9.5% from July 2015 to August 2016 (the date of our review of evidence). As c. 79% of the sales transactions we have had regard to occurred in 2015 we have added a conservative increase of 5% to the new build sales values tabulated in Table 3.6.3. We tabulate in Table 3.6.5 the sales values per sq/m that we have adopted for each HMA.

Table 3.6.5: HMA Adopted Sales Values

HMA	House Capital Value (£ per sq/m)	Flat Capital Value (£ per sq/m)
East	£3,815	£3,425
North & West	£2,956	£2,437
South	£3,365	£3,271

3.6.6 For the affordable rented units we have valued the units on the basis that rents will be capped at Local Housing Allowance (LHA) rates. In the 2015 Budget, the Chancellor announced that the government will require RPs to reduce their rents by 1% per annum over the next four years. Our model reflects this requirement which results in the reduction in capital value of the affordable rented units.

3.6.7 For shared ownership units, we have assumed that RPs will sell 30% initial equity stakes so that units are affordable to households on moderate incomes and charge a rent of 2.5% on the retained equity, the latter being slightly lower than the maximum charge permitted by the Homes and Communities Agency (2.75%). We have capitalised the rent using a yield of 5%.

3.7 Construction Costs

3.7.1 We have sourced construction costs for the residential units from the RICS Build Cost Information Services ('BCIS'), which is based upon tenders for actual schemes. We have adopted a 'mean' gross base build cost rebased to Wiltshire of £1,095 per sq/m for houses and £1,307 for flats.

3.7.2 In addition to the base construction costs, we have included an allowance of £16,000 per dwelling to reflect external works and roads and utilities. This allowance accounts for any additional costs that may be incurred due to the physical nature of the sites plus any works required for landscaping, security enhancement and driveways/parking within the site.

3.7.3 We have adopted this cost due to recent evidence and the Wokingham Borough CIL examination where the Inspector agreed with evidence submitted that indicated that an allowance of £16,000 per unit was sufficient. In our experience it is likely that developers will be able to value engineer build costs to lower levels than assumed in this study on larger sites, such as the subject strategic sites.

3.8 Professional Fees

3.8.1 In addition to the base construction costs, development schemes will incur professional fees, covering consultants such as architects, quantity surveyors, mechanical and electrical engineers and Highways consultants.

3.8.2 Our appraisals incorporate an allowance of 8% for professional fees which covers all professional input and planning fees, energy performance certificates and NHBC warranty costs. We have adopted 8% as strategic sites are Greenfield sites and should incur lower professional fees in comparison to brownfield sites. In particular, volume house builders will typically adopt standard house types which will significantly reduce design fees in addition to retaining in-house consultants which can reduce fees.

3.9 Finance Costs

3.9.1 Our appraisals incorporate finance costs on land acquisition and all construction costs at 7%.

3.10 Planning Obligations & CIL

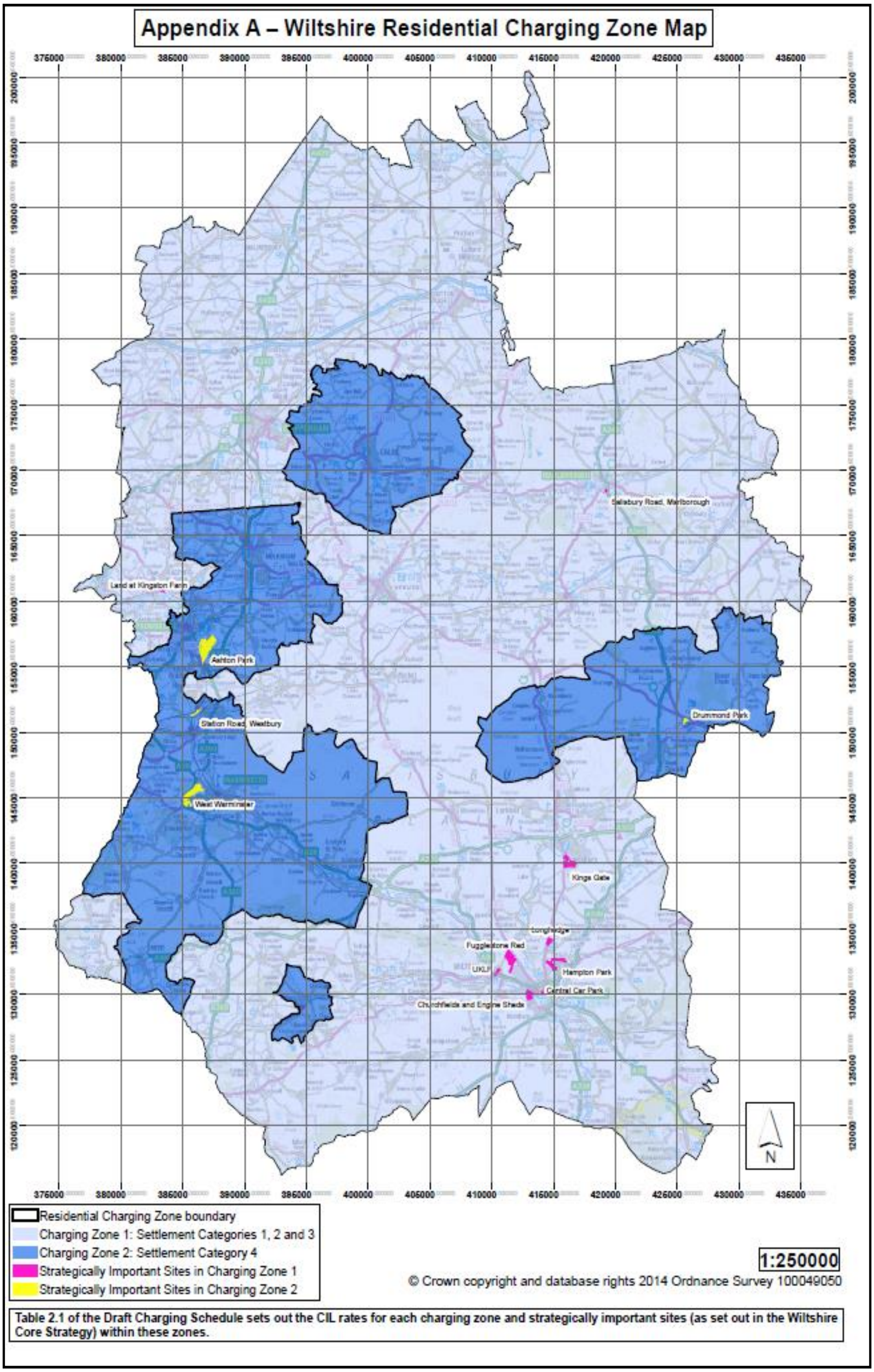
3.10.1 We have adopted planning obligations as provided by the Council for each typology and we set these out in Table 3.10.1. We comment in further detail below with regards to the CIL rates we have tested.

Table 3.10.1: Planning Obligations and CIL

Planning Obligation	Cost (£ / %)
Affordable Housing	30% for sites with a CIL rate of £55 per sq/m 40% for sites with a CIL rate of £85 per sq/m
S106	£1,000 per unit
Wiltshire CIL	£55 per sq/m & £85 per sq/m

In terms of the S106 obligations we have assumed a notional cost of £1,000 per dwelling for all site typologies. However, the detail in respect of each and every planning obligation will ultimately be determined by the particular requirements of individual sites.

In terms of CIL, the Wiltshire CIL Charging Schedule splits Wiltshire geographically into two CIL charging zones (1 and 2) set out on page 14.



Source: Wiltshire Community Infrastructure Levy 'Charging Schedule' May 2015

3.11 Profit

3.11.1 Developer's profit is closely correlated with the perceived risk of residential development. The greater the risk, the greater the required profit level, which helps to mitigate against the risk, but also to ensure that the potential rewards are sufficiently attractive for a bank and other equity providers to fund a scheme. In 2007, profit levels were at around 15 -17% of development value. However, following the impact of the credit crunch and the collapse in interbank lending and the various government bailouts of the banking sector, profit margins have increased. It is important to emphasise that the level of minimum profit is not necessarily determined by developers (although they will have their own view and the boards of the major house builders will set targets for minimum profit).

3.11.2 The views of the banks which fund development are more important; if the banks decline an application by a developer to borrow to fund a development, it is very unlikely to proceed, as developers rarely carry sufficient cash to fund it themselves. Consequently, future movements in profit levels will largely be determined by the attitudes of the banks towards development proposals. The near collapse of the global banking system in the final quarter of 2008 has resulted in a much tighter regulatory system, with UK banks having to take a much more cautious approach to all lending. In this context, and against the backdrop of the current sovereign debt crisis in the Eurozone, the banks may not allow profit levels to decrease much lower than their current level of 17 -20% even for well-established volume house builders with a solid track record and long standing relationships with funding institutions.

3.11.3 We have adopted a profit rate of 20% on GDV for the market housing units to reflect the level of risk that we consider to be present in the current market. We recently experienced a range of 17% to 20% on GDV for market housing units. However, due to the uncertainty that is now apparent after the EU Referendum in the United Kingdom and potential risks associated with leaving the European Union, we consider a profit allowance of 20% on GDV to be reflective of the current market.

3.11.4 We have adopted a profit of 6% on GDV for the affordable housing element of the scheme. This reduced profit for the affordable housing reflects the risk of delivery. The developer will contract with a RP prior to commencement of construction and they are – in effect – acting as a contractor, with their risk limited to cost only. After contracting with the RP, there is no sales risk to the developer. In contract, the market housing construction will typically commence before any units are sold and sales risk is present well into the development period**.**

3.12 Sales & Marketing Costs

3.12.1 We have adopted industry standard cost assumptions to reflect the cost of sales and marketing and we tabulate these costs in Table 3.13.1

Table 3.12.1: Sales and Marketing Costs

Cost Heading	Cost (%)
Sales Agent Fee	1.5%
Marketing Costs	1.5%
Sales Legal Fee	0.5%

4 Benchmark Site Value

Land values for Greenfield sites currently used as agricultural land typically transact in the region of £20,000 - £22,000 per hectare. However, landowners are unlikely to release their land for development at such low values. The extent of 'uplift' required is often a matter of debate and has been considered by CLG research on land values. This research indicates a range of £0.247m to £0.371m per gross hectare[4].

In arriving at benchmark land values for each site we have adopted a value for the gross developable area of each site of £0.35m per hectare toward the upper end of the range and £0.25m toward the bottom on the basis of the values outlined in the CLG research for Greenfield development Land.

The price per hectare at which any development land could transact will be dependent upon a range of factors such as the extent of infrastructure costs, affordable housing provision, costs of strategic transport links and the market's perception of future values and costs. As a result, land could potentially transact at a range of land values dependent upon the individual circumstances of each site.

It should be highlighted that land values are not fixed and can (and should) be flexible to accommodate planning requirements such as affordable housing. We would draw the readers' attention to the comments on land values in the Examiner's report on the Mayor of London's CIL[5], which indicates that land owners will need to adjust their expectations to accommodate allowances for infrastructure. Whilst these comments related to a CIL report the same principle should also apply to additional planning obligations such as affordable housing and S106 obligations.

[4] CLG '*Cumulative impacts of regulations on house builders and landowners Research paper*' 2011

[5] Para 32: *"the price paid for development land may be reduced…. a reduction in development land value is an inherent part of the CIL concept…. in some instances it may be possible for contracts and options to be re-negotiated in the light of the changed circumstances arising from the imposition of CIL charges."*

5 Appraisal Results

5.1.1 This section sets out the results of our appraisals with the residual land values (RLVs) calculated for each of the development typologies. The RLVs are then compared to benchmark land values at the upper end of the CLG guidance of £0.35m per hectare and the lower end of the range of £0.25m. We tabulate below the results of our assessment of the viability. The typologies that have their results highlighted in red are sites that are not viable when benchmarked against the site value. In our appraisals, we have also incorporated the Council's two CIL rates of £55 and £85 per sq/m.

Table 5.1.1: 40% affordable housing, Benchmark Site Value of £0.35m per hectare and CIL rate of £85 per sq/m

HMA	Typology	Residual land value (£millions)	Gross site area	Residual per gross ha (£millions)	BLV (£m)	RLV less BLV (£m)
East	Class 1 - 10 units	£1.32	0.6	£2.06	£0.35	£1.71
East	Class 2 - 35 Units	£2.10	1.3	£1.68	£0.35	£1.33
East	Class 3 - 95 Units	£3.57	2.6	£1.38	£0.35	£1.03
East	Class 4 - 225 Units	£9.85	6.8	£1.46	£0.35	£1.11
North & West	Class 1 - 13 Units	£0.57	0.3	£1.83	£0.35	£1.48
North & West	Class 2 - 48 Units	£0.96	0.6	£1.53	£0.35	£1.18
North & West	Class 3 - 100 Units	£1.59	2.7	£0.60	£0.35	£0.25
North & West	Class 4 - 276 Units	£4.94	6.3	£0.78	£0.35	£0.43
South	Class 1 - 13 Units	£0.76	0.4	£2.18	£0.35	£1.83
South	Class 2 - 63 Units	£1.86	1.6	£1.20	£0.35	£0.85
South	Class 3 - 136 Units	£4.00	3.1	£1.30	£0.35	£0.95
South	Class 4 - 336 Units	£8.62	8.2	£1.05	£0.35	£0.70

5.1.2 In summary, the results of our assessment demonstrate that each of the typologies are viable with 40% affordable housing and generate a surplus when benchmarked against a site value of £0.35m per hectare. We tabulate in Table 5.1.2 our appraisal results benchmarked against a site value of £0.25m per hectare.

Table 5.1.2: 40% Affordable Housing, Benchmark Site Value of £0.25m per hectare and CIL rate of £85 per sq/m

HMA	Typology	Residual land value (£millions)	Gross site area	Residual per gross ha (£millions)	BLV (£m)	RLV less BLV (£m)
East	Class 1 - 10 units	£1.32	0.6	£2.06	£0.25	£1.81
East	Class 2 - 35 Units	£2.10	1.3	£1.68	£0.25	£1.43
East	Class 3 - 95 Units	£3.57	2.6	£1.38	£0.25	£1.13
East	Class 4 - 225 Units	£9.85	6.8	£1.46	£0.25	£1.21
North & West	Class 1 - 13 Units	£0.57	0.3	£1.83	£0.25	£1.58
North & West	Class 2 - 48 Units	£0.96	0.6	£1.53	£0.25	£1.28
North & West	Class 3 - 100 Units	£1.38	2.7	£0.60	£0.25	£0.35
North & West	Class 4 - 276 Units	£4.94	6.3	£0.78	£0.25	£0.53
South	Class 1 - 13 Units	£0.76	0.4	£2.18	£0.25	£1.93
South	Class 2 - 63 Units	£1.86	1.6	£1.20	£0.25	£0.95
South	Class 3 - 136 Units	£4.00	3.1	£1.30	£0.25	£1.05
South	Class 4 - 336 Units	£8.62	8.2	£1.05	£0.25	£0.80

5.1.3 In summary, when the residual land values of the typologies are compared to a benchmark of £0.25m per hectare all of the typologies can support 40% affordable housing in addition to a larger surplus than those tabulated in Table 5.1.1.

5.1.4 We tabulate in Table 5.1.4 and Table 5.1.5 our appraisal results adopting a CIL rate of £55 per sq/m and benchmark site values of £0.25m and £0.35m. Due to the lower CIL rates all of the typologies are viable with 30% affordable housing and generate a surplus in excess of the typologies with a CIL rate of £85 per sq/m.

Table 5.1.4: 30% Affordable Housing, Benchmark Site Value of £0.35m per hectare and CIL rate of £55 per sq/m

HMA	Site	Residual land value (£millions)	Gross site area	Residual per gross ha (£millions)	BLV (£m)	RLV less BLV (£m)
East	Class 1 - 10 units	£1.33	0.64	£2.08	£0.35	£1.73
East	Class 2 - 35 Units	£2.46	1.25	£1.97	£0.35	£1.62
East	Class 3 - 95 Units	£4.31	2.58	£1.67	£0.35	£1.32
East	Class 4 - 225 Units	£11.70	6.75	£1.73	£0.35	£1.38
North & West	Class 1 - 13 Units	£0.69	0.31	£2.24	£0.35	£1.89
North & West	Class 2 - 48 Units	£1.26	0.63	£2.00	£0.35	£1.65
North & West	Class 3 - 100 Units	£2.16	2.66	£0.81	£0.35	£0.46
North & West	Class 4 - 276 Units	£6.46	6.33	£1.02	£0.35	£0.67
South	Class 1 - 13 Units	£0.91	0.35	£2.61	£0.35	£2.26
South	Class 2 - 63 Units	£2.31	1.55	£1.49	£0.35	£1.14
South	Class 3 - 136 Units	£4.90	3.08	£1.59	£0.35	£1.24
South	Class 4 - 336 Units	£10.63	8.19	£1.30	£0.35	£0.95

Table 5.1.5: 30% Affordable Housing, Benchmark Site Value of £0.25m per hectare and CIL rate of £55 per sq/m

HMA	Site	Residual land value (£millions)	Gross site area	Residual per gross ha (£millions)	BLV (£m)	RLV less BLV (£m)
East	Class 1 - 10 units	£1.33	0.64	£2.08	£0.25	£1.83
East	Class 2 - 35 Units	£2.46	1.25	£1.97	£0.25	£1.72
East	Class 3 - 95 Units	£4.31	2.58	£1.67	£0.25	£1.42
East	Class 4 - 225 Units	£11.70	6.75	£1.73	£0.25	£1.48
North & West	Class 1 - 13 Units	£0.69	0.31	£2.24	£0.25	£1.99
North & West	Class 2 - 48 Units	£1.26	0.63	£2.00	£0.25	£1.75
North & West	Class 3 - 100 Units	£2.16	2.66	£0.81	£0.25	£0.56
North & West	Class 4 - 276 Units	£6.46	6.33	£1.02	£0.25	£0.77
South	Class 1 - 13 Units	£0.91	0.35	£2.61	£0.25	£2.36
South	Class 2 - 63 Units	£2.31	1.55	£1.49	£0.25	£1.24
South	Class 3 - 136 Units	£4.90	3.08	£1.59	£0.25	£1.34
South	Class 4 - 336 Units	£10.63	8.19	£1.30	£0.25	£1.05

6 Sensitivity Analysis

6.1.1 We have utilised our appraisal as the basis for testing sensitivities for each typology. This sensitivity analysis has been provided for illustrative purposes to assist the Council with understanding how the viability might be affected by movements in sales values and construction costs. However, it should be noted that the future trajectory of the housing market is inherently uncertain and predictions in respect of value growth/cost inflation cannot be relied upon. It should be noted that we have retained the benchmark site value range used in the base appraisals, but in practice a fall in sales values should reduce land values and therefore a reduction in sales values may not materially affect viability.

Table 6.1.1: 5% reduction in market housing sales values, 40% affordable housing, £0.35m benchmark site value and CIL rate of £85 per sq/m

HMA	Site	Residual land value (£millions)	Gross site area	Residual per gross ha (£millions)	BLV (£m)	RLV less BLV (£m)
East	Class 1 - 10 units	£1.18	0.64	£1.85	£0.35	£1.50
East	Class 2 - 35 Units	£1.81	1.25	£1.45	£0.35	£1.10
East	Class 3 - 95 Units	£2.99	2.58	£1.16	£0.35	£0.81
East	Class 4 - 225 Units	£8.46	6.75	£1.25	£0.35	£0.90
North & West	Class 1 - 13 Units	£0.47	0.31	£1.52	£0.35	£1.17
North & West	Class 2 - 48 Units	£0.68	0.63	£1.08	£0.35	£0.73
North & West	Class 3 - 100 Units	£0.92	2.66	£0.34	£0.35	- £0.01
North & West	Class 4 - 276 Units	£3.61	6.33	£0.57	£0.35	£0.22
South	Class 1 - 13 Units	£0.66	0.35	£1.88	£0.35	£1.53
South	Class 2 - 63 Units	£1.47	1.55	£0.95	£0.35	£0.60
South	Class 3 - 136 Units	£3.26	3.08	£1.06	£0.35	£0.71
South	Class 4 - 336 Units	£6.99	8.19	£0.85	£0.35	£0.50

6.1.2 In summary, a 5% reduction in market housing sales values does not affect the viability of 11 of the typologies across the HMAs. However, the 100 unit typology in the north and west becomes marginally unviable with a deficit of £0.01m per hectare when benchmarked against a site value of £0.35m per hectare.

Table 6.1.2: 5% reduction in market housing sales values, 40% affordable housing, £0.25m benchmark site value and CIL rate of £85 per sq/m

HMA	Site	Residual land value (£millions)	Gross site area	Residual per gross ha (£millions)	BLV (£m)	RLV less BLV (£m)
East	Class 1 - 10 units	£1.18	0.64	£1.85	£0.25	£1.60
East	Class 2 - 35 Units	£1.81	1.25	£1.45	£0.25	£1.20
East	Class 3 - 95 Units	£2.99	2.58	£1.16	£0.25	£0.91
East	Class 4 - 225 Units	£8.46	6.75	£1.25	£0.25	£1.00
North & West	Class 1 - 13 Units	£0.47	0.31	£1.52	£0.25	£1.27
North & West	Class 2 - 48 Units	£0.68	0.63	£1.08	£0.25	£0.83
North & West	Class 3 - 100 Units	£0.92	2.66	£0.34	£0.25	£0.09
North & West	Class 4 - 276 Units	£3.61	6.33	£0.57	£0.25	£0.32
South	Class 1 - 13 Units	£0.66	0.35	£1.88	£0.25	£1.63
South	Class 2 - 63 Units	£1.47	1.55	£0.95	£0.25	£0.70
South	Class 3 - 136 Units	£3.26	3.08	£1.06	£0.25	£0.81
South	Class 4 - 336 Units	£6.99	8.19	£0.85	£0.25	£0.60

6.1.3 When a 5% reduction in sales values is benchmarked against a site value of £0.25m per hectare all of the typologies are viable across each of the HMAs.

Table 6.1.3: 5% reduction in market housing sales values, 30% affordable housing, £0.35m benchmark site value and CIL rate of £55 per sq/m

HMA	Site	Residual land value (£millions)	Gross site area	Residual per gross ha (£millions)	BLV (£m)	RLV less BLV (£m)
East	Class 1 - 10 units	£1.20	0.64	£1.87	£0.35	£1.52
East	Class 2 - 35 Units	£2.15	1.25	£1.72	£0.35	£1.37
East	Class 3 - 95 Units	£3.68	2.58	£1.43	£0.35	£1.08
East	Class 4 - 225 Units	£10.17	6.75	£1.51	£0.35	£1.16
North & West	Class 1 - 13 Units	£0.59	0.31	£1.89	£0.35	£1.54
North & West	Class 2 - 48 Units	£0.97	0.63	£1.54	£0.35	£1.19
North & West	Class 3 - 100 Units	£1.38	2.66	£0.52	£0.35	£0.17
North & West	Class 4 - 276 Units	£5.03	6.33	£0.79	£0.35	£0.44
South	Class 1 - 13 Units	£0.79	0.35	£2.27	£0.35	£1.92
South	Class 2 - 63 Units	£1.89	1.55	£1.22	£0.35	£0.87
South	Class 3 - 136 Units	£4.09	3.08	£1.33	£0.35	£0.98
South	Class 4 - 336 Units	£8.85	8.19	£1.08	£0.35	£0.73

6.1.4 When a CIL rate of £55 per sq/m is adopted together with a 5% reduction in market housing sales values all of the typologies are viable when benchmarked against a site value of £0.35m per hectare.

Table 6.1.4: 5% reduction in market housing sales values, 30% affordable housing, £0.25m benchmark site value and CIL rate of £55 per sq/m

HMA	Site	Residual land value (£millions)	Gross site area	Residual per gross ha (£millions)	BLV (£m)	RLV less BLV (£m)
East	Class 1 - 10 units	£1.20	0.64	£1.87	£0.25	£1.62
East	Class 2 - 35 Units	£2.15	1.25	£1.72	£0.25	£1.47
East	Class 3 - 95 Units	£3.68	2.58	£1.43	£0.25	£1.18
East	Class 4 - 225 Units	£10.17	6.75	£1.51	£0.25	£1.26
North & West	Class 1 - 13 Units	£0.59	0.31	£1.89	£0.25	£1.64
North & West	Class 2 - 48 Units	£0.97	0.63	£1.54	£0.25	£1.29
North & West	Class 3 - 100 Units	£1.38	2.66	£0.52	£0.25	£0.27
North & West	Class 4 - 276 Units	£5.03	6.33	£0.79	£0.25	£0.54
South	Class 1 - 13 Units	£0.79	0.35	£2.27	£0.25	£2.02
South	Class 2 - 63 Units	£1.89	1.55	£1.22	£0.25	£0.97
South	Class 3 - 136 Units	£4.09	3.08	£1.33	£0.25	£1.08
South	Class 4 - 336 Units	£8.85	8.19	£1.08	£0.25	£0.83

6.1.5 When a CIL rate of £55 per sq/m is adopted together with a 5% reduction in market housing sales values all of the typologies are viable when benchmarked against a site value of £0.25m per hectare.

6.1.6 We have also modelled a sensitivity analysis which demonstrates the performance of the typologies if construction costs are increased by 5%.

Table 6.1.5: 5% increase in construction costs, 40% Affordable Housing, Benchmark Site Value of £0.35m, CIL rate of £85 per sq/m

HMA	Site	Residual land value (£millions)	Gross site area	Residual per gross ha (£millions)	BLV (£m)	RLV less BLV (£m)
East	Class 1 - 10 units	£1.25	0.64	£1.96	£0.35	£1.61
East	Class 2 - 35 Units	£1.87	1.25	£1.50	£0.35	£1.15
East	Class 3 - 95 Units	£3.07	2.58	£1.19	£0.35	£0.84
East	Class 4 - 225 Units	£8.72	6.75	£1.29	£0.35	£0.94
North & West	Class 1 - 13 Units	£0.48	0.31	£1.55	£0.35	£1.20
North & West	Class 2 - 48 Units	£0.67	0.63	£1.06	£0.35	£0.71
North & West	Class 3 - 100 Units	£0.89	2.66	£0.33	£0.35	- £0.02
North & West	Class 4 - 276 Units	£3.59	6.33	£0.57	£0.35	£0.22
South	Class 1 - 13 Units	£0.68	0.35	£1.93	£0.35	£1.58
South	Class 2 - 63 Units	£1.49	1.55	£0.96	£0.35	£0.61
South	Class 3 - 136 Units	£3.33	3.08	£1.08	£0.35	£0.73
South	Class 4 - 336 Units	£7.13	8.19	£0.87	£0.35	£0.52

6.1.7 In summary, a 5% reduction in market housing sales values does not affect the viability of 11 of the typologies across the HMAs. However, the 100 unit typology in the north and west becomes marginally unviable with a deficit of £0.02m per hectare when benchmarked against a site value of £0.35m per hectare.

Table 6.1.6: 5% increase in construction costs, 40% Affordable Housing, Benchmark Site Value of £0.25m, CIL rate of £85 per sq/m

HMA	Site	Residual land value (£millions)	Gross site area	Residual per gross ha (£millions)	BLV (£m)	RLV less BLV (£m)
East	Class 1 - 10 units	£1.25	0.64	£1.96	£0.25	£1.71
East	Class 2 - 35 Units	£1.87	1.25	£1.50	£0.25	£1.25
East	Class 3 - 95 Units	£3.07	2.58	£1.19	£0.25	£0.94
East	Class 4 - 225 Units	£8.72	6.75	£1.29	£0.25	£1.04
North & West	Class 1 - 13 Units	£0.48	0.31	£1.55	£0.25	£1.30
North & West	Class 2 - 48 Units	£0.67	0.63	£1.06	£0.25	£0.81
North & West	Class 3 - 100 Units	£0.89	2.66	£0.33	£0.25	£0.08
North & West	Class 4 - 276 Units	£3.59	6.33	£0.57	£0.25	£0.32
South	Class 1 - 13 Units	£0.68	0.35	£1.93	£0.25	£1.68
South	Class 2 - 63 Units	£1.49	1.55	£0.96	£0.25	£0.71
South	Class 3 - 136 Units	£3.33	3.08	£1.08	£0.25	£0.83
South	Class 4 - 336 Units	£7.13	8.19	£0.87	£0.25	£0.62

6.1.8 When the compared to a site benchmark of £0.25m, all of the typologies are viable and the 100 unit typology in the north and west HMA which was marginally unviable against a site of value of £0.35m generates a surplus of £0.08m.

Table 6.1.7: 5% increase in construction costs, 30% Affordable Housing, Benchmark Site Value of £0.35m, CIL rate of £55 per sq/m

HMA	Site	Residual land value (£millions)	Gross site area	Residual per gross ha (£millions)	BLV (£m)	RLV less BLV (£m)
East	Class 1 - 10 units	£1.26	0.64	£1.97	£0.35	£1.62
East	Class 2 - 35 Units	£2.24	1.25	£1.79	£0.35	£1.44
East	Class 3 - 95 Units	£3.82	2.58	£1.48	£0.35	£1.13
East	Class 4 - 225 Units	£10.59	6.75	£1.57	£0.35	£1.22
North & West	Class 1 - 13 Units	£0.61	0.31	£1.96	£0.35	£1.61
North & West	Class 2 - 48 Units	£0.97	0.63	£1.54	£0.35	£1.19
North & West	Class 3 - 100 Units	£1.40	2.66	£0.53	£0.35	£0.18
North & West	Class 4 - 276 Units	£5.15	6.33	£0.81	£0.35	£0.46
South	Class 1 - 13 Units	£0.83	0.35	£2.36	£0.35	£2.01
South	Class 2 - 63 Units	£1.95	1.55	£1.26	£0.35	£0.91
South	Class 3 - 136 Units	£4.24	3.08	£1.38	£0.35	£1.03
South	Class 4 - 336 Units	£9.17	8.19	£1.12	£0.35	£0.77

6.1.9 When a CIL rate of £55 per sq/m is applied to the typologies all of the typologies are viable when benchmarked against a site value of £0.35m per hectare and generate a surplus in excess of the site value.

Table 6.1.8: 5% increase in construction costs, 30% Affordable Housing, Benchmark Site Value of £0.25m, CIL rate of £55 per sq/m

HMA	Site	Residual land value (£millions)	Gross site area	Residual per gross ha (£millions)	BLV (£m)	RLV less BLV (£m)
East	Class 1 - 10 units	£1.26	0.64	£1.97	£0.35	£1.72
East	Class 2 - 35 Units	£2.24	1.25	£1.79	£0.35	£1.54
East	Class 3 - 95 Units	£3.82	2.58	£1.48	£0.35	£1.23
East	Class 4 - 225 Units	£10.59	6.75	£1.57	£0.35	£1.32
North & West	Class 1 - 13 Units	£0.61	0.31	£1.96	£0.35	£1.71
North & West	Class 2 - 48 Units	£0.97	0.63	£1.54	£0.35	£1.29
North & West	Class 3 - 100 Units	£1.40	2.66	£0.53	£0.35	£0.28
North & West	Class 4 - 276 Units	£5.15	6.33	£0.81	£0.35	£0.56
South	Class 1 - 13 Units	£0.83	0.35	£2.36	£0.35	£2.11
South	Class 2 - 63 Units	£1.95	1.55	£1.26	£0.35	£1.01
South	Class 3 - 136 Units	£4.24	3.08	£1.38	£0.35	£1.13
South	Class 4 - 336 Units	£9.17	8.19	£1.12	£0.35	£0.87

6.1.10 Whilst we have demonstrated the performance of the typologies in the event that sales values reduce by 5% and construction costs increase by 5%, we have also modelled the appraisal results assuming that sales values increase by 10%. We tabulate the results of this analysis in Tables 6.1.9 to 6.1.12 set out below.

Table 6.1.9: 10% increase in market housing values, 40% Affordable Housing, Benchmark Site Value of £0.35m, CIL rate of £85 per sq/m

HMA	Site	Residual land value (£millions)	Gross site area	Residual per gross ha (£millions)	BLV (£m)	RLV less BLV (£m)
East	Class 1 - 10 units	£1.32	0.64	£2.06	£0.35	£1.71
East	Class 2 - 35 Units	£2.10	1.25	£1.68	£0.35	£1.33
East	Class 3 - 95 Units	£3.57	2.58	£1.38	£0.35	£1.03
East	Class 4 - 225 Units	£9.85	6.75	£1.46	£0.35	£1.11
North & West	Class 1 - 13 Units	£0.57	0.31	£1.83	£0.35	£1.48
North & West	Class 2 - 48 Units	£0.96	0.63	£1.53	£0.35	£1.18
North & West	Class 3 - 100 Units	£1.38	2.66	£0.52	£0.35	£0.17
North & West	Class 4 - 276 Units	£4.94	6.33	£0.78	£0.35	£0.43
South	Class 1 - 13 Units	£0.76	0.35	£2.18	£0.35	£1.83
South	Class 2 - 63 Units	£1.86	1.55	£1.20	£0.35	£0.85
South	Class 3 - 136 Units	£4.00	3.08	£1.30	£0.35	£0.95
South	Class 4 - 336 Units	£8.62	8.19	£1.05	£0.35	£0.70

Table 6.1.10: 10% increase in market housing values, 40% Affordable Housing, Benchmark Site Value of £0.25m, CIL rate of £85 per sq/m

HMA	Site	Residual land value (£millions)	Gross site area	Residual per gross ha (£millions)	BLV (£m)	RLV less BLV (£m)
East	Class 1 - 10 units	£1.32	0.64	£2.06	£0.35	£1.81
East	Class 2 - 35 Units	£2.10	1.25	£1.68	£0.35	£1.43
East	Class 3 - 95 Units	£3.57	2.58	£1.38	£0.35	£1.13
East	Class 4 - 225 Units	£9.85	6.75	£1.46	£0.35	£1.21
North & West	Class 1 - 13 Units	£0.57	0.31	£1.83	£0.35	£1.58
North & West	Class 2 - 48 Units	£0.96	0.63	£1.53	£0.35	£1.28
North & West	Class 3 - 100 Units	£1.38	2.66	£0.52	£0.35	£0.27
North & West	Class 4 - 276 Units	£4.94	6.33	£0.78	£0.35	£0.53
South	Class 1 - 13 Units	£0.76	0.35	£2.18	£0.35	£1.93
South	Class 2 - 63 Units	£1.86	1.55	£1.20	£0.35	£0.95
South	Class 3 - 136 Units	£4.00	3.08	£1.30	£0.35	£1.05
South	Class 4 - 336 Units	£8.62	8.19	£1.05	£0.35	£0.80

Table 6.1.11: 10% increase in market housing values, 30% Affordable Housing, Benchmark Site Value of £0.35m, CIL rate of £55 per sq/m

HMA	Site	Residual land value (£millions)	Gross site area	Residual per gross ha (£millions)	BLV (£m)	RLV less BLV (£m)
East	Class 1 - 10 units	£1.60	0.64	£2.50	£0.35	£2.15
East	Class 2 - 35 Units	£3.08	1.25	£2.47	£0.35	£2.12
East	Class 3 - 95 Units	£5.56	2.58	£2.15	£0.35	£1.80
East	Class 4 - 225 Units	£14.74	6.75	£2.18	£0.35	£1.83
North & West	Class 1 - 13 Units	£0.91	0.31	£2.93	£0.35	£2.58
North & West	Class 2 - 48 Units	£1.88	0.63	£2.99	£0.35	£2.64
North & West	Class 3 - 100 Units	£2.83	2.66	£1.06	£0.35	£0.71
North & West	Class 4 - 276 Units	£9.28	6.33	£1.47	£0.35	£1.12
South	Class 1 - 13 Units	£1.15	0.35	£3.29	£0.35	£2.94
South	Class 2 - 63 Units	£3.13	1.55	£2.02	£0.35	£1.67
South	Class 3 - 136 Units	£6.49	3.08	£2.11	£0.35	£1.76
South	Class 4 - 336 Units	£14.13	8.19	£1.73	£0.35	£1.38

Table 6.1.12: 10% increase in market housing values, 40% Affordable Housing, Benchmark Site Value of £0.25m, CIL rate of £55 per sq/m

HMA	**Site**	**Residual land value (£millions)**	**Gross site area**	**Residual per gross ha (£millions)**	**BLV (£m)**	**RLV less BLV (£m)**
East	Class 1 - 10 units	£1.60	0.64	£2.50	£0.25	£2.25
East	Class 2 - 35 Units	£3.08	1.25	£2.47	£0.25	£2.22
East	Class 3 - 95 Units	£5.56	2.58	£2.15	£0.25	£1.90
East	Class 4 - 225 Units	£14.74	6.75	£2.18	£0.25	£1.93
North & West	Class 1 - 13 Units	£0.91	0.31	£2.93	£0.25	£2.68
North & West	Class 2 - 48 Units	£1.88	0.63	£2.99	£0.25	£2.74
North & West	Class 3 - 100 Units	£2.83	2.66	£1.06	£0.25	£0.81
North & West	Class 4 - 276 Units	£9.28	6.33	£1.47	£0.25	£1.22
South	Class 1 - 13 Units	£1.15	0.35	£3.29	£0.25	£3.04
South	Class 2 - 63 Units	£3.13	1.55	£2.02	£0.25	£1.77
South	Class 3 - 136 Units	£6.49	3.08	£2.11	£0.25	£1.86
South	Class 4 - 336 Units	£14.13	8.19	£1.73	£0.25	£1.48

6.2 In summary, all of the typologies tabulated above with a 10% increase in sales values generate a surplus when compared to the site value benchmarks and can therefore support 40% affordable housing.

6.2.1 Finally, we have modelled a sensitivity analysis which demonstrates the performance of the typologies when sales values increase by 10% and construction costs increase by 5%.

Table 6.1.13: 10% increase in market housing sales values 5% increase in construction costs, 40% Affordable Housing, Benchmark Site Value of £0.35m, CIL rate of £85 per sq/m

HMA	**Site**	**Residual land value (£millions)**	**Gross site area**	**Residual per gross ha (£millions)**	**BLV (£m)**	**RLV less BLV (£m)**
East	Class 1 - 10 units	£1.52	0.64	£2.38	£0.35	£2.03
East	Class 2 - 35 Units	£2.44	1.25	£1.95	£0.35	£1.60
East	Class 3 - 95 Units	£4.22	2.58	£1.64	£0.35	£1.29
East	Class 4 - 225 Units	£11.50	6.75	£1.70	£0.35	£1.35
North & West	Class 1 - 13 Units	£0.67	0.31	£2.17	£0.35	£1.82
North & West	Class 2 - 48 Units	£1.23	0.63	£1.96	£0.35	£1.61
North & West	Class 3 - 100 Units	£1.81	2.66	£0.68	£0.35	£0.33
North & West	Class 4 - 276 Units	£6.23	6.33	£0.98	£0.35	£0.63
South	Class 1 - 13 Units	£0.89	0.35	£2.55	£0.35	£2.20
South	Class 2 - 63 Units	£2.24	1.55	£1.45	£0.35	£1.10
South	Class 3 - 136 Units	£4.80	3.08	£1.56	£0.35	£1.21
South	Class 4 - 336 Units	£10.37	8.19	£1.27	£0.35	£0.92

Table 6.1.14: 10% increase in market housing sales values 5% increase in construction costs, 40% Affordable Housing, Benchmark Site Value of £0.25m, CIL rate of £85 per sq/m

HMA	Site	Residual land value (£millions)	Gross site area	Residual per gross ha (£millions)	BLV (£m)	RLV less BLV (£m)
East	Class 1 - 10 units	£1.52	0.64	£2.38	£0.35	£2.13
East	Class 2 - 35 Units	£2.44	1.25	£1.95	£0.35	£1.70
East	Class 3 - 95 Units	£4.22	2.58	£1.64	£0.35	£1.49
East	Class 4 - 225 Units	£11.50	6.75	£1.70	£0.35	£1.45
North & West	Class 1 - 13 Units	£0.67	0.31	£2.17	£0.35	£1.92
North & West	Class 2 - 48 Units	£1.23	0.63	£1.96	£0.35	£1.71
North & West	Class 3 - 100 Units	£1.81	2.66	£0.68	£0.35	£0.43
North & West	Class 4 - 276 Units	£6.23	6.33	£0.98	£0.35	£0.73
South	Class 1 - 13 Units	£0.89	0.35	£2.55	£0.35	£2.30
South	Class 2 - 63 Units	£2.24	1.55	£1.45	£0.35	£1.20
South	Class 3 - 136 Units	£4.80	3.08	£1.56	£0.35	£1.31
South	Class 4 - 336 Units	£10.37	8.19	£1.27	£0.35	£1.02

6.2.2 The results of this sensitivity analysis and a benchmark site value of £0.25m per hectare improves the viability of all of the typologies across the HMAs in comparison to the results tabulated in Table 6.1.13.

Table 6.1.15: 10% increase in market housing sales values, 5% increase in construction costs, 30% Affordable Housing, Benchmark Site Value of £0.35m, CIL rate of £55 per sq/m

HMA	Site	Residual land value (£millions)	Gross site area	Residual per gross ha (£millions)	BLV (£m)	RLV less BLV (£m)
East	Class 1 - 10 units	1.53	0.64	£2.40	£0.35	£2.05
East	Class 2 - 35 Units	2.86	1.25	£2.29	£0.35	£1.94
East	Class 3 - 95 Units	5.08	2.58	£1.97	£0.35	£1.62
East	Class 4 - 225 Units	13.65	6.75	£2.02	£0.35	£1.67
North & West	Class 1 - 13 Units	0.82	0.31	£2.65	£0.35	£2.30
North & West	Class 2 - 48 Units	1.59	0.63	£2.53	£0.35	£2.18
North & West	Class 3 - 100 Units	2.39	2.66	£0.90	£0.35	£0.55
North & West	Class 4 - 276 Units	8.01	6.33	£1.27	£0.35	£0.92
South	Class 1 - 13 Units	1.06	0.35	£3.04	£0.35	£2.69
South	Class 2 - 63 Units	2.77	1.55	£1.79	£0.35	£1.44
South	Class 3 - 136 Units	5.85	3.08	£1.90	£0.35	£1.55
South	Class 4 - 336 Units	12.71	8.19	£1.55	£0.35	£1.20

6.2.3 In summary, a reduction to the CIL rate from £85 per sq/m to £55 per sq/m improves the viability of the typologies with 30% affordable housing.

Table 6.1.16: 10% increase in market housing sales values 5% increase in construction costs, 30% Affordable Housing, Benchmark Site Value of £0.25m, CIL rate of £55 per sq/m

HMA	Site	Residual land value (£millions)	Gross site area	Residual per gross ha (£millions)	BLV (£m)	RLV less BLV (£m)
East	Class 1 - 10 units	£1.53	0.64	£2.40	£0.25	£2.15
East	Class 2 - 35 Units	£2.86	1.25	£2.29	£0.25	£2.04
East	Class 3 - 95 Units	£5.08	2.58	£1.97	£0.25	£1.72
East	Class 4 - 225 Units	£13.65	6.75	£2.02	£0.25	£1.77
North & West	Class 1 - 13 Units	£0.82	0.31	£2.65	£0.25	£2.40
North & West	Class 2 - 48 Units	£1.59	0.63	£2.53	£0.25	£2.28
North & West	Class 3 - 100 Units	£2.39	2.66	£0.90	£0.25	£0.65
North & West	Class 4 - 276 Units	£8.01	6.33	£1.27	£0.25	£1.02
South	Class 1 - 13 Units	£1.06	0.35	£3.04	£0.25	£2.79
South	Class 2 - 63 Units	£2.77	1.55	£1.79	£0.25	£1.54
South	Class 3 - 136 Units	£5.85	3.08	£1.90	£0.25	£1.65
South	Class 4 - 336 Units	£12.71	8.19	£1.55	£0.25	£1.30

6.2.4 In summary, a reduction to the benchmark site value from £0.35m to £0.25m improves the viability of the typologies with 30% affordable housing.

7 Strategic Sites

7.1 Sites and Appraisal Assumptions

7.1.1 This section outlines our approach to testing the viability of a strategic development identified by the Council and we tabulate in Table 7.1.1 the site we have tested.

Table 7.1.1: Strategic Site

Site	Density – Units per Ha	Units	Employment / Local Centre	Country Park (Ha)	Green Space	School (Ha)	Residential Developable Area (Ha)
Netherhampton Road	43	640	5.8	33	7.35	1.8	14.85

7.1.2 Our appraisal of Netherhampton Road adopts the following assumptions tabulated in Table 7.1.2.

Table 7.1.2: Strategic Site Appraisal Assumptions

Appraisal Heading	Assumption
Unit Mix	85% Houses, 15% Flats
Market Housing Sales Values	£3,498 per sq/m
Affordable Housing	40% (70% affordable rent, 30% shared ownership)
Employment Land Value	£200,000 per hectare
Construction Cost Rate	Flats: £1,095 per sq/m Houses: £1,307 per sq/m Blended Cost Rate: £1,118 per sq/m
Construction Contigency	5%
On-site Infrastructure	£16,000 per unit
Professional Fees	8%
Profit	20% on GV for market housing units 6% on value for affordable housing units
Section 106 Costs	Road Improvement Costs: £5,152,000 Education: £5,251,503
Community Infrastructure Levy	£85 per sq/m
Sales Rates Assumptions	8 per month (multiple sales/marketing outlets)
Finance Rate	7%

7.2 Benchmark Site Value

We tabulate in Table 7.2.1 the benchmark site values we have calculated on the basis of the site areas tabulated in Table 7.1.1. As with the development typologies we have applied a value of £250,000 and £350,000 per hectare to the gross developable area to reflect the lower and upper end of the CLG range referenced in section 4 of this report in addition to a value of £10,000 per hectare for the Country Park.

Table 7.2.1: Netherhampton Road Benchmark Site Values

Value per hectare	Gross developable area (30 ha)	Country Park (33 ha)	Site Value	Benchmark per Ha
£350,000 & £10,000 (Country Park)	£10,500,000	£330,000	£10,830,000	c. £164,000
£250,000 & £10,000 (Country Park)	£7,500,000	£330,000	£7,830,000	c. £119,000

7.3 Appraisal Results

7.3.1 We set out below the results of our assessment of Netherhampton Road with 40% affordable housing and the appraisal assumptions tabulated in Table 7.1.2.

Table 7.3.1: Appraisal Results with Benchmark Land Value at £0.35m per hectare and Country Park at £0.01m per hectare

Residual Land Value	Benchmark Land Value	Surplus/ (Deficit)	Benchmark Per Hectare	RLV per Hectare	Surplus/ (Deficit) per hectare
c. £17.06m	£10.83m	£6.23m	c. £0.16m	c. £0.26m	£0.10m

7.3.2 The results above demonstrate that with 40% affordable housing Netherhampton Road generates a surplus of £0.10m per hectare when compared to the benchmark land value of c. £0.16m per hectare. As a result, the scheme can support 40% affordable housing and support site specific payments towards roads and education.

7.3.3 We have benchmarked our appraisal results against a land value at the lower end of the CLG range and we tabulate the results below.

Table 7.3.3: Appraisal Results with Benchmark Land Value at £0.25m per hectare and Country Park at £0.01m per hectare

Residual Land Value	Benchmark Land Value	Surplus/ (Deficit)	Benchmark Per Hectare	RLV per Hectare	Surplus/ (Deficit) per hectare
c. £17.06m	£7.83m	£9.23m	c. £0.119m	c. £0.26m	£0.141m

7.3.4 In this scenario the adoption of a benchmark land value which reflects the value of land at the lower end of the CLG research range ensures that the site can generate a surplus of c. £0.14m.

8 Conclusions

8.1.1 The NPPF states that the cumulative impact of local planning authority standards and policies "should not put implementation of the plan at serious risk, and should facilitate development throughout the economic cycle". This report tests this proposition in Wiltshire.

8.1.2 We have tested the impact of the Council's affordable housing target of 40% based upon a CIL rate of £85 per sq/m and 30% affordable housing based upon a CIL rate of £55 per sq/m, with a tenure mix of 70% rented and 30% intermediate housing. Our appraisals indicate that on a current day basis the development typologies that we have tested can support a policy compliant level of affordable housing when benchmarked against either the upper benchmark site value of £0.35m per hectare or at the lower benchmark site value of £0.25m.

8.1.3 While scheme-specific viability on individual applications can be determined relatively accurately at the point of application, viability changes over time. Residual land values are very sensitive to changes in sales values and build costs, which can vary significantly over the development period. As a result, we have modelled a sensitivity analysis that demonstrates the performance of development typologies in the event that sales values and construction costs increase or decrease.

8.1.4 Our analysis demonstrates that the development typologies can support policy compliant affordable housing in the event that sales values decrease or construction costs increase. We stress that when sales values decrease generally site values will decrease and as a result the viability of these sites will improve when land values are adjusted. To demonstrate this point, the100 unit typology in the north and west HMA which was marginally unviable against a site of value of £0.35m generates a surplus of £0.08m when benchmarked against a site value of £0.25m per hectare.

8.1.5 Whilst our development typology appraisals indicate that 30% and 40% affordable housing is supportable dependent upon the CIL rate that applies, there will inevitably be a degree of negotiation when site specific schemes come forward through the planning process due to scheme-specific factors that cannot be determined in a high level assessment of generic development typologies. This issue is, however, adequately addressed through planning policy measures that are in place that recognise that the actual amounts of affordable housing delivered on individual schemes may vary when scheme-specific viability issues emerge.

8.1.6 In addition to assessing a number of typologies we have also tested a specific strategic site at Netherhampton Road in Salisbury which takes into account the costs of site specific S106 obligations (road and education payments. Our assessment of this site demonstrates that this site can support 40% affordable housing and the specific section 106 obligations whilst generating a significant financial surplus when benchmarked against our site value range.

8.1.7 As noted in earlier sections of this report, the NPPF requires that developments should generate a competitive return for developers and landowners. The competitive return for developers is addressed through the inclusion of a profit margin as a cost in each appraisal. The return to the landowner needs to be addressed through a capital sum for releasing land for development.

8.1.8 It should be noted that there is no single threshold return that can be assumed for all landowners and, in practice, the return would be scheme specific and determined by individual site factors.

8.1.9 However it is clear from the results set out above that benchmark land values have a significant influence on the level of surplus in addition to the 40% affordable housing that each site/typology can support. Assumptions about owners' expectations of land value make a large difference in terms of viability.

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For further information please visit the following website:

http://www.wiltshire.gov.uk/wiltshsgsiteallocationsplan.htm