1.0 Hearing Statement – Flintshire Local Development Plan Examination

- 1.1 Savills has been instructed by Redrow Homes, Anwyl Homes and Castle Green Homes to provide this Hearing Statement in respect of Matter 13, Affordable Housing and HMOs. The focus of this statement will be the Affordable Housing Viability Assessment (herein referred to as the "VA"), dated June 2020 (LDP-EBD-HP6.1). The VA was produced by the District Valuer Services ("DVS") on behalf of Flintshire County Council. This statement should be read in conjunction with the representations issued to the Council on 23 August 2019, which are enclosed at **Appendix 1**.
- 1.2 We have reviewed the Schedule of Matters, Issues and Questions (INSP006A) in relation to Affordable Housing and Policy HN3. The purpose of this statement is to provide a summary of the key issues to address the questions raised by the Inspector, with particular reference to questions d, e and I under Matter 13. We will address these in turn below.
- 1.3 We believe that the VA needs to be reviewed and re-assessed in order for the conclusions and associated Policy HN3 recommendations to be credible, robust and deliverable.

2.0 <u>Question d - are the required affordable housing contributions and thresholds in Policy</u> <u>HN3 founded on a credible assessment of viability?</u>

2.1 We have a number of concerns around the assumptions made in the VA that we think need to be reviewed in order for Policy HN3 to be based on a credible assessment of viability. These are addressed below.

2.2 Construction Costs

- 2.2.1 In addition to the comments made in our initial representations, our key concerns around the cost assumptions are as follows:
 - i. The standard cost assumptions are too low and do not allow for impending known changes to building regulations
 - ii. There is no allowance for additional abnormal site costs, which are required on all sites
 iii. The contingency allowance is too low as it falls below a sensible allowance, does not reflect inherent cost risk and does not address the wider cost underestimations in the VA
- 2.2.2 The overall base build cost assumptions appear too low. Firstly, the appraisals are dated March 2019 with no allowance made for build cost inflation to reflect current day costs. The VA recognises the need for reviewing and monitoring over time, which we will comment on in more detail in Section 3.0. It is however prudent to note recent Building Regulation changes, particularly the approved changes in respect of Part L & F, and the intentions for additional Future Homes Standards by 2025.
- 2.2.3 The government guidance in respect of Part L & F expects additional costs of up to £4,850 per plot to be required as a result of the changes. The changes will come into full force from June 2023 but this is salient now as developers who are looking to purchase sites of a reasonable scale need to factor in appropriate timescales to obtain a planning consent and undertake appropriate site works to enable the sale of dwellings. The costs associated with these changes are therefore being considered now by developers who are purchasing development land.
- 2.2.4 The additional requirements likely to be imposed by Future Homes Standards also point to increasing standard build costs. Over time, the costs associated with Part L and other regulation changes relating to dwellings will serve to increase standard build costs. Looking back at BCIS inflation over the last couple of years will not capture these increases and it would therefore be prudent for the VA to be re-assessed based on a more accurate cost assessment.

- 2.2.5 The VA recognises that sites attract site abnormal costs such as site levelling, foundation costs where ground conditions are poor, service upgrades or remediation costs associated with contaminated sites. We agree with this statement but we believe that the extent of abnormal cost requirements on development sites has been understated and the lack of any allowance for these means the findings of the VA are not robust. Based on our experience of residential development, abnormal development costs are required on all sites.
- 2.2.6 Standard cost definitions vary from developer to developer, but they essentially include the standard items that are required on all sites, to allow for a consistent basis of comparison across sites. It follows that when for example deeper foundations, service diversions or additional site works are required, these are quantified on an abnormal basis as the required works vary from site to site and cannot be quantified on a standard basis for this reason. To make no allowance for site abnormal costs for the purpose of viability testing, would be in effect assuming that all sites in Flintshire are perfect development sites that only need standard foundations, plot build and standard roads & sewers, with no additional works whatsoever. These sites simply do not exist, with every development site attracting abnormal development costs to some extent.
- 2.2.7 We do however recognise that the extent of site abnormal costs across sites are unknown at the viability testing stage for Local Plan purposes. It would therefore be prudent to make a sensible allowance for additional abnormal costs to reflect the fact that all sites attract these costs and ensure the testing is robust. We accept any allowance would be indicative, but to not include any allowance at all results in the total build costs being severely underestimated. We believe that a rate of £20,000 £25,000 per plot would be a reasonable allowance on this basis. We were not provided with the opportunity to submit additional evidence in this regard following the release of the VA, but would be able to do so should the VA be reviewed as per our recommendations.
- 2.2.8 The other area of concern is the inclusion of a 2.5% contingency. A contingency this low does not reflect inherent cost risk and general build cost inflation. As discussed above, the standard costs are also underestimated and site abnormal costs excluded entirely. When full cost are known and accounted for based on a suite of technical information, we would expect a contingency to be in the order of 5% in this region. When full cost are not known, we would expect a higher allowance for contingency to reflect the associated costs risks. The allowance of 2.5% is therefore below a sensible allowance and does not cover any of the foreseen cost issues with the VA. The DVS acknowledge that planning for marginal viability is inadvisable and some flexibility should be left to allow for changes in costs, but this logic is not then applied to the cost assumptions themselves.
- 2.2.9 We believe that the cumulative impact of the cost assumptions in the VA are significant. The costs across all sites are significantly underestimated, which leads to the viability of sites being overstated. We would therefore recommend that the VA is reviewed on this basis. We would welcome the opportunity to provide additional cost evidence throughout a review process.

2.3 Land Value

- 2.3.1 We have two major concerns in respect of the benchmark land value assumption:
 - i. A flat rate of £300,000 per gross ha (c. £120,000 per gross acre) is adopted across the whole of Flintshire, without any recognition for variation in land values across the area depending on location
 - ii. The rate of £300,000 per gross ha is too low and ignores market evidence, which could stifle the release of development land to meet housing need
- 2.3.2 Development land has sold in Flintshire for between c. £500,000 £1,040,000 per gross ha (£200,000 £420,000 per gross acre). The rate applied in the VA therefore appears to ignore the market, despite recognising that the benchmark land value should reflect the level at which a reasonable land owner would release land. In our view a reasonable landowner would have reference to transactions for similar development land and therefore expect similar values, subject to site specific constraints.



- 2.3.3 It is not apparent if the DVS have reviewed market evidence and used this to inform their assessment of land value. We would be happy to provide this should we be given the opportunity to comment on any review of the VA.
- 2.3.4 As with all locations, a range of land values are achieved across Flintshire depending on location and the assumption that all land in Flintshire would reasonably sell for the same value is wholly unrealistic. A typology approach is adopted for the assessment of Gross Development Value (GDV) to reflect the differences across the sub market areas in Flintshire. We would expect this to be mirrored in the assessment of land value and for each of these sub market areas to attract different benchmark land values.
- 2.3.5 It is also evident that the rate of £300,000 per gross ha is too low and falls below the range of land values achieved in Flintshire. There needs to be realism in the local plan viability assessment process. In a competitive market place where wider supply across the region is limited, developers will need to pay more than this to secure a development pipeline and deliver housing.
- 2.3.6 We believe the threshold for viability testing is therefore too low and this leads to an overestimation of viability across each sub market area. This is particularly the case across the higher value sub market areas in Flintshire. If planning policy is set at an unviable level, the ability of the housebuilding sector to deliver much needed new homes will be detrimentally impacted.

2.4 Profit

- 2.4.1 We believe the profit assumptions made are too low. We provided the Savills Developer's Profit Margin Paper as evidence in our initial representations and the key findings of this are:
 - i. Site level margins need to reflect target operating margins and overheads/costs
 - ii. Target operating margins are typically between 15 20% on GDV
 - iii. Overheads and costs can range from 5 12% on GDV across the sample analysed
 - iv. The net site level targets of volume housebuilders therefore results in a need for a minimum profit margin of 20% 25% on GDV when allowing for costs and overheads
 - v. This net site level target applies to all housing tenures and types of sites
 - vi. These margins are required to ensure market competition, reinvestment by existing developers, protection from risks associated with the wider market and protection from site specific risks
 - vii. Other Key Performance Indicators (KPIs) such as Return on Capital Employed (ROCE) are also important on large strategic sites or sites with significant up-front infrastructure costs
- 2.4.2 The profit assumptions in the VA need to be robust and for the purpose of plan testing we believe 17.5% on GDV across the private housing and 11% on GDV across the affordable housing is too low. We would therefore recommend that a more robust assumption of 20% on GDV is adopted across all housing.

2.5 Site Density

- 2.5.1 The gross site area assumptions and resulting net area and unit number assumptions are flawed. We note that no changes were made following our initial representations, with the main issues as follows:
 - i. It would appear that the net developable area assumptions are made based on the minimum requirements for public open space (POS) and maximum housing densities, without any consideration for additional impacts on net developable area that are often incurred
 - ii. The Welsh Government SUDs standards place emphasis on need for open storage of surface water and the associated land take of this can be more than the 5% allowed for



- 2.5.2 As an example, the site layout for the Issa Farm scheme by Castle Green Homes in Bryn y Baal is enclosed at **Appendix 2**. The site can accommodate 59 dwellings. The gross site area is 2.87 ha (7.1 acres), with 0.85 ha (2.09 acres) required for POS, SUDs and undevelopable land. This demonstrates the capacity of sites has been overestimated in the VA, with 2.05 gross ha (5.06 acres) allowed for 50 units, with this example requiring 2.87 gross ha (7.1 acres) for just 9 additional units.
- 2.5.3 Overestimating site capacity leads to the overall developable area and resultant residual land value being overstated. This results in site viability being overstated because of unrealistic site density assumptions. We would therefore recommend that the VA is re-assessed based on more realistic and robust assumptions.

2.6 Appraisal Conclusions and Policy Recommendations

2.6.1 The VA presents the appraisal outcomes in a table format, based on viable, marginal and unviable outcomes. These are presented on a per ha basis, based on a flat £300,000 per ha benchmark land value, and colour coded and as follows:

Central								
Units/% of AH	50%	40%	35%	30%	25%	20%	15%	10%
10	£220,095	£399,645						
50	£213,030	£351,618						
100	£204,266	£341,929						
150	£227,124	£365,693						
300	£253,971	£386,881						
Connah's Qua	v etc							
Units/% of AH	50%	40%	35%	30%	25%	20%	15%	10%
10		£281,862		£439,720				
50		£243,154	£332,017					
100			£305,906					
150		£266,134	£325,777					
300		£296,737	£349,262					
	-							
Flint and Coas		400/	250/	200/	050/	20%	450/	400/
Units/% of AH	50%	40%	35%	30%	25%		15%	10%
10 50						£273,190	C202 720	£394,237
							£283,726	£321,032
100							£263,904	£306,720
150							£295,732	0000 705
300								£262,705
Garden City								
Units/% of AH	50%	40%	35%	30%	25%	20%	15%	10%
10				£201,337		£324,337		
50						£275,882	£335,911	
100						£267,365	£311,768	
150						£290,855	£338,305	
300					£278,365	£330,152		
Mold and Buc	klev							
Units/% of AH	50%	40%	35%	30%	25%	20%	15%	10%
10	£197,575	£411,655	5570	3070	2370	2070	1070	1070
50	£215,764	£366,809						
100	£199,921	£359,067						
150	£237,544	£385,597						
300	£264,073	£405,142						
500		2400,142						

Figure 1: VA Appraisal Conclusion (as presented)

2.6.2 We note that the definition for marginal in the VA is a result that is within 10% of the benchmark land value (£300,000 per ha). The marginal results are however only presented as marginal in instances where the land value is below the benchmark by 10%, and not above the benchmark



by 10%. It is not clear why this has been done and we believe it leads to the appraisal results being presented in a misleading way.

2.6.3 Based on the DVS's own definition of marginal and appraisal outcomes, the marginal results should actually be presented as follows:

Central								
Units/% of AH	50%	40%	35%	30%	25%	20%	15%	10%
10	£220,095	£399,645						
50	£213,030	£351,618						
100	£204,266	£341,929						
150	£227,124	£365,693						
300	£253,971	£386,881						
Connah's Qua	y etc							
Units/% of AH	50%	40%	35%	30%	25%	20%	15%	10%
10		£281,862		£439,720				
50		£243,154	£332,017					
100			£305,906					
150		£266,134	£325,777					
300			£349,262					
Flint and Coas	at .							
Units/% of AH	50%	40%	35%	30%	25%	20%	15%	10%
10					2070	£273,190		£394,237
50						,	£283.726	£321,032
100								£306,720
150							£295,732	
300								£262,705
Garden City								
Units/% of AH	50%	40%	35%	30%	25%	20%	15%	10%
10				£201,337		£324,337		
50							£335,911	
100							£311,768	
150							£338,305	
300					£278,365	£330,152		
Mold and Buck	klev							
Units/% of AH	50%	40%	35%	30%	25%	20%	15%	10%
		£411,655	5570	5070	2070	2070	1370	1070
		£366,809						
		£359,067						
		£385,597						
		£405,142						
500								

Figure 2: VA Appraisal Conclusions (presented correctly)

- 2.6.4 There are 8 examples of results that are marginal but not presented this way in the results tables. This casts serious doubt over the policy recommendations made in the VA and demonstrates a need for further testing. Many of the viable results are also very close to the marginal benchmark, for example the two 'viable' results in the Garden City area are within c. £5,000 and £8,000 of the 10% buffer.
- 2.6.5 When this is coupled with the underestimation of costs, unrealistic allowance for contingency and lack of typology approach to benchmark land value, the results do not reflect deliverable policy recommendations. We would therefore recommend that further scenario testing is undertaken and that the results are shared in a transparent way that allows for relevant industry stakeholders to respond.



3.0 <u>Question e – are the requirements of Policy HN3 clear, and consistent with national policy?</u>

- 3.1 The requirements of policy HN3 are not clear in that the policy is split into sub market areas but the map provided in the VA that defines these areas is not clear. A copy is enclosed at **Appendix 3**. Such a map needs to be overlaid on a Ordnance Survey base map so there is clarity over which sub market area specific sites are part of.
- 3.2 In addition, we do not believe that national policy has been followed because the VA is not credible or robust as per the reasons outlined in Section 2.0.

4.0 Question I – how will the affordable housing target be delivered and reviewed?

4.1 Review Mechanisms

- 4.1.1 The VA is clear throughout that there is a need for policy to be flexible and accommodate future changes to costs, values and the wider market. We agree with this contention but note that VA itself is based on appraisals dated March 2019 and is therefore out-dated by just over 2 years.
- 4.1.2 We also made a number of comments about reviewing the VA based on indices in the initial representations, with concerns over a reliance on general measures and the need for all cost variables to be considered when using inflation as a monitoring tool.
- 4.1.3 We would expect annual reviews and sufficient policy flexibility to ensure the delivery of housing over the plan period. The current VA should also be updated to reflect up to date costs and adhere to the need for flexibility in policy.

4.2 Strategic Sites

- 4.2.1 We believe any allocated sites that deliver over 100 dwellings or a significant proportion of the planned new homes in a given location, should be testing on a site specific basis. This is because the infrastructure costs associated with large scale sites is often greater and required on an up-front basis, when compared to smaller sites of less than 100 dwellings. This normally negatively affects viability.
- 4.2.2 Site specific viability testing for strategic sites will ensure that policy levels are set at a deliverable level on the sites that are most important to ensuring housing delivery across Flintshire.

5.0 <u>Summary</u>

- 5.1 In summary, we believe that the viability assumptions in relation to construction costs, land value, profit and site density in particular are flawed. There are also other assumptions that cause concern as per our initial representations. Additionally, the associated appraisal results are presented in a misleading way. As such, the affordable housing percentages are too onerous because viability has been overestimated across Flintshire.
- 5.2 In addition, the associated map that defines the sub market areas is not clear and needs to be overlaid on a Ordnance Survey base map.
- 5.3 The process to review the VA findings is also limited by reference to tender indices on some assumptions. We believe this is insufficient and that the VA should at least be updated to reflect current day costs/values as the appraisals are out-dated by over 2 years.
- 5.4 Policy HN3 is therefore not based on a credible assessment of viability. We therefore request that the VA is fully reviewed and updated to reflect current day cost/values, with opportunity for stakeholder comment and input, and amended accordingly to reflect our concerns and ensure that policy is deliverable.

Appendix 1



Dear Sirs,

Further to the issue of the 'Study Concerning the Economic Viability of Providing Affordable Housing Across Flintshire' (VA) by the District Value Services (DVS) dated May 2019, Savills have been instructed by Anwyl Homes, Redrow Homes and MacBryde Homes to respond as part of the consultation process. This response is intended to assist Flintshire Council and the DVS in the production of the Local Plan Viability Assessment. Savills and our clients welcome the opportunity to work with the Council and their advisors.

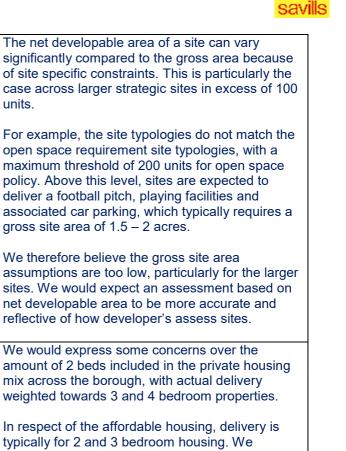
For our review, we have focused on the key assumptions outlined by the DVS. It should be noted that our lack of comment on other assumptions does not imply our agreement and we reserve the right to make further representations at a later stage where relevant.

It is important to state that we have been unable to undertake a detailed review of the VA because no supporting market information and the full appraisals have not been disclosed. We would therefore welcome receiving the supporting information and additional time to fully review and respond with appropriate evidence that will assist with the VA. We would expect a minimum of four weeks to allow time for review, data collection and analysis and the collation of a response that is as useful as possible. We would therefore request that this time frame is provided as the VA and consultation process is progressed.

	DVS Assumptions	Comments
Methodology	Typology approach	On the whole, we agree with the methodology adopted in the VA with the borough split into sub market areas.
		It is not clear because the appraisals have not been disclosed, but it would appear that no differentiation has been made in respect of benchmark land values across the sub market areas.
		This is key because the release of land is fundamental to the delivery of the Local Plan. If landowners are not incentivised to release land, this will undermine the delivery of housing to meet need. Development land in higher value locations typically sells for higher values to reflect this.
		We would therefore expect benchmark land value assumptions to vary across the key housing market area, with higher values in the higher value areas. The differing levels of affordable housing proposed across the market areas are aligned with values in this regard, so we would expect the same to be the case for benchmark land values.
		There is also no review of brownfield sites. Whilst most of the allocations are greenfield, brownfield sites may still come forward and this scenario should therefore be tested as onerous affordable housing and Section 106 contributions could prevent this land from being redeveloped. This would not be compliant with national and local planning policy.

That said, our comments at this stage are summarised as follows:

Danahmark	6200.000 per grace he fer	
Benchmark Land Value (BLV)	£300,000 per gross ha for greenfield sites	As above, we would express major concerns over the adoption of an area wide BLV as well as the figure itself, which equates to c. £120,000 per gross acre.
		The assumed values are on a gross basis but the net developable area of a site can vary significantly compared to the gross area. If we assume an optimum site coverage of $75 - 80\%$, this would equate to benchmark land values in the order of £150,000 - £170,000 per net acre. We believe this figure is too low.
		The DVS has recognised that 'establishing the level at which a landowner would 'release' development land is subject but is a critical element in any assessment of viability'. They then go to say that 'most land value benchmarks will have first reference to a site's existing use value'. We disagree with this contention. A willing landowner who was selling residential development land would have reference to other development land transactions when deciding whether or not to sell. Should the value be significantly below the values established in the market, even if it is in excess of the existing use value, a reasonable landowner is unlikely to sell. There is an assumption that planning permission is in place within the VA appraisals, and as such development land values are particularly relevant when assessing BLVs.
		We therefore believe the DVS should have reference to market evidence when assessing benchmark land values across the sub market areas.
		We have reviewed the market evidence we have available to us at this stage, which is focused within the 'Mold and Buckley' housing market sub area. We are aware of development land transactions ranging from £280,000 - £500,000 per net acre and £200,000 - £400,000 per gross acre. Evidently these values are well in excess of the £120,000 per gross acre and £150,000 - £170,000 per net acre adopted by the DVS.
		The BLV is key to assessing viability because ensuring an appropriate premium to a landowner is key to ensuring the delivery of the Local Plan. Should this be set at a level that is too low, land will not come forward and development will not take place. We would therefore strongly recommend that particular care is taken when assessing BLVs and that a typology approach is vital to ensuring that land owners release land for development.



		 maximum threshold of 200 units for open space policy. Above this level, sites are expected to deliver a football pitch, playing facilities and associated car parking, which typically requires a gross site area of 1.5 – 2 acres. We therefore believe the gross site area assumptions are too low, particularly for the larger sites. We would expect an assessment based on net developable area to be more accurate and reflective of how developer's assess sites.
Housing Mix	Private housing: 20 – 23% x 2 beds 37 - 40% x 3 beds 40% x 4 beds Affordable housing: 57% x 1/2 beds 31% x 3 beds 12% x 4/5 beds	We would express some concerns over the amount of 2 beds included in the private housing mix across the borough, with actual delivery weighted towards 3 and 4 bedroom properties. In respect of the affordable housing, delivery is typically for 2 and 3 bedroom housing. We understand there is limited RP demand for 4 and 5 bedroom units, creating difficulties with delivering these house types. Should these be delivered, this would also increase the developable area on sites, resulting in a need for more land. We therefore believe that the mix assumptions should reflect what has been delivered, comprising of 1, 2 and 3 bedroom properties only.
Affordable Housing Tenure	30% social rent 30% intermediate rent 40% intermediate sale	The current policy position is 60% social rented and 40% intermediate housing. We note that the amended tenure is reflective of Flintshire's ability to deliver social rented units. We would contend that there is not a significant value differential between the current and proposed tenure mixes, with intermediate rent achieving similar values to social rent. We are therefore concerned that the affordable housing requirement has been increased from 30% to 40% in the Mold and Buckley and Central HMAs. We have particular concerns about the VA assumptions that have been adopted to support this, namely the BLV, costs and developer's profit. It is worth noting that the delivery of affordable housing in these locations has not always been policy compliant when 30% is the preferred policy level because of viability constraints. This in itself indicates there will be delivery issues with increasing the affordable housing requirement,

Gross Site

Assumptions

Area

10 units – 0.4 ha (1 acre)

acres)

50 units - 2.05 ha (5 acres)

 $\begin{array}{l} 100 \text{ units} - 4.07 \text{ ha} (10 \text{ acres}) \\ 150 \text{ units} - 6.12 \text{ ha} (15 \text{ acres}) \\ 300 \text{ units} - 12.24 \text{ ha} (30 \end{array}$

		based on a tenure mix that will achieve similar values compared to current policy tenure requirements.
Construction Costs	Upto 100 units - £970 per sq m plus 15% externals 150 units - £918 per sq m plus 20% externals 300 units - £866 per sq m plus 25% externals Contingency of 2.5% No allowance for abnormal costs	The DVS has based these costs on Median BCIS data for Clwyd for estate housing generally from Q1 2019. The DVS data states a cost of £970 per sq m (£90.12 per sq ft), which has been amended to reflect larger unit schemes. We have undertaken a sense check and note that our BCIS figures are different for Q1 2019, which seems to be a result of a larger sample size. This data is enclosed at Appendix 1 and details a median cost of £1,074 per sq m for estate housing generally. This equates to £99.78 per sq ft. This is more reflective of larger regional and national housebuilder cost information we receive from various sources and our market knowledge. There are some cost items listed by the DVS as standard, which are in fact abnormal. These include pumping stations, water attenuation, traffic light junctions and roundabouts. We would stress that these are site specific abnormal requirements that cannot be quantified on a standard basis. It is also worth noting that Welsh Water, a statutory consultee, require hydraulic modelling assessments to be undertaken at the cost of the developer across North Wales. We are aware of recent examples where the cost of this ranges from £3 - £6 per sq ft. This is therefore an abnormal requirement across all sites in Flintshire that will not be captured by BCIS data and needs be included in the VA. We would also stress that build costs do not change on per site basis for a developer. If a site is of a scale that suits a volume housebuilder, we would expect the costs to be reflective of that type of developer. This would be the case on sites in excess of 40 units across Flintshire. A larger housebuilder would incur the same standard costs on a 60 unit site, compared to a 200 unit site, because the economies of scale benefit the party that would undertake the development rather than the site specifically. We therefore do not believe it is appropriate to reduce the build costs by £5 per sq ft (£52 per sq m) for sites of 150 units and 300 units respectively.

		does not reflect that no allowance has been made for abnormal costs. This is supported by the DVS when stating, 'it is inadvisable to plan for marginal viability and some flexibility should be left to allow for changes in costs or abnormals on a site specific basis'. We would therefore expect a contingency of at least 5% in any scenario where the full extent of costs are unknown.
Developer's Profit	17.5% on GDV for private housing and 11% on GDV for affordable housing.	A profit margin should be reflective of the inherent risk in the construction and sales processes, as well as the wider economy. Current market requirements are for at least 20% on GDV as a blended average across both the private and affordable housing. The adoption of 17.5% across private housing does not appear to be based on any market evidence or engagement with housebuilders. Savills have produced the a Developer's Profit Margin Paper, which is attached is Appendix 2 and is based on engagement with the HBF and national plc housebuilders. This demonstrates that 20% on GDV, as a blended average across both the private and affordable housing, is considered a minimum acceptable return. This pre-dates the UK's withdrawal from the EU which has meant the UK economy is in a period of
Interest Rate	7% debit rate 1.5% credit rate	uncertainty. We would therefore suggest a more cautious approach is adopted in respect of profit margins for an area wide viability assessment. We support the adoption of a 7% finance rate, but are concerned about the adoption of a 1.5% credit
		Given current interest rates and the economic uncertainty in the market, we are unsure why a credit rate of 1.5% has been adopted and what evidence this is based on. We are not aware of any developers or lenders who are allowing for credit rates in development appraisals.
Appraisal Analysis	Flint and Coast – 15% Connah's Quay – 35% Garden City – 20% Mold and Buckley – 40% South Border – 30% Central – 40%	A series of tables have been provided that show the viability scenario testing results as 'viable', 'marginal' or 'unviable'. We note that the 'viable' results show a reduced percentage may be appropriate, as follows: Flint and Coast – 10% Garden City – 15% South Border – 25% We would stress that this is based on the DVS assumptions. We cannot comment definitively on

		the appropriateness of the findings because we have only seen one appraisal. Based on our concerns, we struggle to see how the proposed affordable housing requirements are viable, particularly in the case of the Mold and Buckley and Central HMA where 40% is suggested. We would welcome the opportunity to review the appraisal scenarios in more detail and therefore request that the appraisal information is disclosed as part of the public consultation process.
Review Mechanisms	Sites to be considered on an individual scheme-by-scheme basis with a full viability appraisal HPI and BCIS monitoring	Savills supports the need for site specific viability testing to reflect the individual nature of development sites. This is particularly the case for strategic sites that are key to the delivery of the plan. We believe this should be done at the planning application stage.
		Whilst HPI and BCIS index reviews would assist in some regard, these are general measures that do not reflect site specific measures. Any house price inflation would also need to be measured against build cost inflation as well as inflation across the other cost variables.
		Market conditions change over time and market evidence typically becomes out of date within 12 months. We would therefore expect there to be review mechanism provisions within the VA or annual updates to account for this to ensure the delivery of housing over the plan period.

We trust that the information provided is useful and would welcome the opportunity for further engagement to ensure the appropriate evidence informs the VA. We would expect the VA inputs to be amended through an iterative consultation process that allows for more detailed evidence to be gathered and technical work to be undertaken. We would request that the DVS revise their assumptions in light of the comments above and that Flintshire Council provide further consultation opportunities, with an appropriate timeframe for responding.

Should you have any queries in relation to what has been provided please do not hesitate to contact myself. We would be happy to provide additional market evidence and meet to discuss and review the VA.

Yours faithfully,



Laura Mackay MRICS Associate Director Appendix 1





£/m2 study

Description: Rate per m2 gross internal floor area for the building Cost including prelims. **Last updated:** 03-Aug-2019 00:38

Rebased to 1Q 2019 (335; sample 5) and Clwyd (86; sample 68)

Maximum age of results: Default period

Building function			£/m² gross i	nternal floor a	area		0
(Maximum age of projects)	Mean	Lowest	Lower quartiles	Median	Upper quartiles	Highest	Sample
New build							
810. Housing, mixed developments (15)	1,120	571	972	1,088	1,235	2,569	1228
810.1 Estate housing							
Genera ll y (15)	1,111	537	952	1,074	1,220	3,853	1689
Single storey (15)	1,247	705	1,066	1,197	1,402	3,853	280
2-storey (15)	1,076	537	939	1,050	1,173	2,124	1290
3-storey (15)	1,125	700	918	1,086	1,263	2,257	114
4-storey or above (15)	2,340	1,158	1,913	2,056	3,080	3,491	5
810.11 Estate housing detached (15)	1,415	841	1,068	1,237	1,450	3,853	20
810.12 Estate housing semi detached							
Generally (15)	1,104	637	953	1,076	1,210	2,051	404
Single storey (15)	1,238	779	1,060	1,216	1,374	2,051	80
2-storey (15)	1,073	637	949	1,051	1,171	1,881	308
3-storey (15)	1,035	797	830	1,023	1,101	1,617	16
810.13 Estate housing terraced							
Genera ll y (15)	1,141	699	951	1,086	1,252	3,491	342
Single storey (15)	1,273	862	1,070	1,207	1,464	1,844	38
2-storey (15)	1,105	699	939	1,070	1,230	2,124	251
3-storey (15)	1,140	700	907	1,079	1,277	2,257	51
4-storey or above (10)	3,285	3,080	-	-	-	3,491	2
816. Flats (apartments)							
Generally (15)	1,308	640	1,089	1,246	1,476	4,425	951
1-2 storey (15)	1,247	769	1,065	1,194	1,375	2,286	227
3-5 storey (15)	1,288	640	1,087	1,233	1,465	2,729	632
6+ storey (15)	1,609	955	1,316	1,506	1,713	4,425	89

Appendix 2

March 2017

Residential Development Margin

Competitive Return to a Willing Developer



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Competitive Return to a Willing Developer



Executive Summary

The level of return required by a willing developer needs to have regard to the scale and complexity of the project in question, its cash efficiency, the scale of investment required and the embedded sales risk. Returns need to be set at a level which supports existing business models, stimulates new entrants into the housing market and which do not act as a barrier to entry to smaller less efficient companies. With no new entrants of scale into the housing market over the last 10 years, and SME's in perpetual decline, the evidence would suggest that current returns are not adequate for the risks involved.

In all cases developer margin is essentially split into three components with Net Operating Margin, overheads and finance needing to be considered in order to derive a gross hurdle rate. This is more easily explained as follows:



Figure 1 – Understanding Gross Margins

Source: Savills

Establishing the correct Site Level Net Margin for incorporation into residual land value calculations used during development viability discussions is key to ensuring the continuation of a robust and sustainable residential development industry.

Our analysis indicates that Operating Margin targets for housebuilders across the economic cycle are 15-20% on Gross Development Value (GDV). Overheads vary significantly (5% - 12%) depending on the scale and type of developer. For the purpose of our analysis we have used an average of 8% on GDV and, after adjusting for site specific finance the resultant suggests a Site Level Net Margin target of 20 – 25% of GDV. It should be noted that this does not take account of any exceptional items or planning costs associated with the promotion of strategic sites. Similarly it does not take in to account the cost of securing and promoting unsuccessful sites, which developers have to cover centrally. This figure could subsequently be higher for certain types and scale of development, such as high capital projects in London and provincial City Centres.

Competitive Return to a Willing Developer



Also, in most cases, Return on Capital Employed (ROCE) is considered to be an equally important indicator, particularly on large capital intensive schemes. A target ROCE needs to be achieved alongside the Site Level Net Margin of 20-25% on GDV. This means that the <u>minimum</u> KPIs used within viability testing (the hurdle rates) should be a Site Level Net Margin of <u>20% - 25% on GDV</u>, <u>blended across all tenures</u>, <u>subject to also achieving a minimum site level hurdle rate of 25% Return on Capital Employed (ROCE)</u>.

Competitive Return to a Willing Developer



Introduction

The Savills Community Infrastructure Levy (CIL) team has a national mandate from the Home Builders Federation (HBF) to prepare CIL representations, attend Examination Hearings and offer CIL consultancy advice across the country. Savills is the only consultancy firm to have a team of this scale solely focused on CIL advice; making the CIL team a market leader.

The CIL team has been involved with all stages of the CIL process (both pre- and post-implementation) offering advice to landowners, housebuilders, developers and local authorities. Since its inception, the CIL team has submitted over 250 separate representations and formed over 100 local housebuilder and developer consortiums.

We are therefore well placed to observe trends in the emerging viability work and subsequent CIL examinations.

Purpose

The purpose of this Briefing Note is to present evidence of what represents a competitive return to a willing developer, taking account of the Government's policy priority to stimulate new entrants into the housing market, support the SME sector and to build one million homes during the course of this Parliament.

Please note that this report is based on research and publically available data compiled in the period January 2016 - February 2017.



Jim Ward

Director

Residential Research



Lizzie Cullum

Associate Director

Residential Capital Markets

Competitive Return to a Willing Developer

Definitions

The following definitions will be referred to throughout the report:

Description	Calculation	Target Percentages
Gross Development Value (GDV)	= Total Development Receipts (Turnover)	n/a
Operating Profit (£)	= Turnover less All Development Costs (Excl. Cost of Debt) - Overheads	n/a
Operating Margin	= Operating Profit (as a % of GDV)	15% to 20%
Gross Profit (£)	= Operating Profit + Overheads	n/a
Gross Margin	= Gross Profit (as a % of GDV)	23% to 28%
Site Level Net Margin (% of GDV)	= Minimum profit margin, or hurdle rate, required to allow the development to commence ¹	20% to 25%
Return on Capital Employed (ROCE)	= Site Level Net Margin divided by annualised cumulative funds employed (including overheads)	Min. 25%
Overhead (%)	The level of overhead required by a home builder (of any size) to undertake residential development (<i>NB</i> : <i>In addition to normal overheads many housing</i> <i>developers include the cost of directly employing</i> <i>design managers, buyers and surveyors within their</i> <i>cost of overheads</i>).	5% to 12%

savills

¹ It should be noted that this figure excludes finance costs. For the purpose of CIL and viability testing, industry practice is to use ARGUS Developer or similar modelling tools that include a developer margin <u>separately</u> to the finance rate. For the purpose of our analysis, we therefore make recommendations in relation to the <u>net</u> site margins as finance will be charged in addition.

Competitive Return to a Willing Developer



Development Margin

Policy Background

- 1.1 The NPPF states that to ensure viability developments should provide competitive returns to a willing land owner and willing developer².
- 1.2 A competitive return to a developer is one that provides a sufficient return for the developer to continue a successful and resilient business through the economic cycle; taking account of the risk profile of the business and its development programme, within the current policy environment.
- 1.3 The Government has a strong housebuilding agenda. It started with the aspiration to deliver 1 million homes over the course of the Parliament. In the first year of Parliament the 189,000 new homes delivered fell just short of the 200,000 homes per year average required (Figure 2). Subsequently, Government ministers have stated that delivery of 225,000 to 275,000 homes per year is needed. To achieve this, continued expansion of the housebuilding sector is required. Expansion of output by Small and Medium-sized Enterprises (SMEs), including new entrants, is an essential part of the route to building more homes. The steep decline in output from SMEs since the 2008-09 downturn is still holding back housebuilding, as shown in Figure 4.

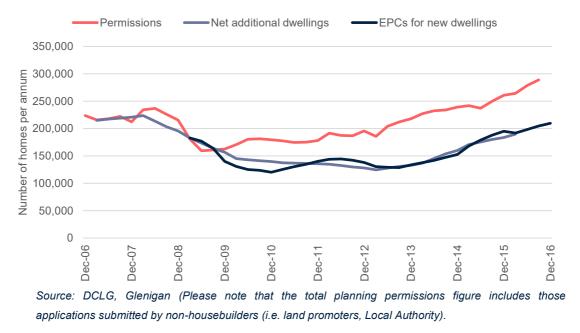


Figure 2 – Housebuilding and planning permissions in England

² NPPF, Communities and Local Government. Para 173. March 2012

Competitive Return to a Willing Developer



- 1.4 Expansion will require additional financial investment. A necessary condition of the financial investment required across both new entrants and existing developers is that developer margins and the return on capital employed are seen by those in the capital markets as being sufficiently robust and sustainable to justify that investment. In the case of quoted national housebuilders their finance is secured at a corporate level via capital markets. This enables them to secure competitive rates, as the majority of their business is undertaken by way of equity rather than debt. In contrast, SMEs secure finance on a project-by-project basis from third parties lenders at much higher rates (8-14%).
- 1.5 The most readily available market evidence of a competitive return is the return achieved for the shareholders of the quoted Plc housebuilders, noting that the Top 17 House Builders accounted for 66% of new home starts in Great Britain in 2016³. The Operating Margins (based on Earnings or Profit before Interest and Tax) of the Plc housebuilders are shown in Figure 3 below.

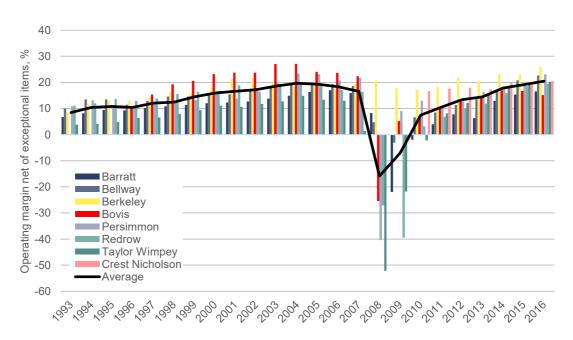


Figure 3 – Operating Margins of major housebuilders 1993 – 2016

Source: Thomson Reuters

1.6 It should be noted that the analysis above refers to <u>blended</u> margins across the business, including:

- All types, size and risk profile of site;
- All tenures of housing, including market sale, market rent and affordable;
- The costs of securing and promoting unsuccessful sites; and
- Overheads.

³ NHBC registrations as published in Housing Market Report, January 2017

Competitive Return to a Willing Developer



- 1.7 A number of viability consultants argue that a different developer margin should be applied to private and affordable housing. However, it is increasingly common for developers to purchase land prior to securing an offer from Registered Providers who are subject to more market risk from the current affordable housing regime than in previous systems of funding. It should also be highlighted that even when a Registered Provider has been secured on a site, the developer is open to risk from planning, ground conditions, delays and abnormals. Developers will therefore review a site as a whole, adopting a blended development margin to reflect the risk of the project in its totality.
- 1.8 Since the economic downturn, the average level of Operating Margin achieved has been building back to 15% to 20% which was achieved during the 2000 to 2007 period, when sector output was approaching and then exceeding 200,000 additional homes per annum (Figure 4 and Figure 2). Only if margins are maintained at these percentages will the required levels of investment in housebuilding be made, enabling significant investment in new entrants and reinvestment amongst existing developers. The margin needs to be sufficiently high to protect, or at least cushion, investors from such downturn risks as evidenced during the 2008-2009 downturn.

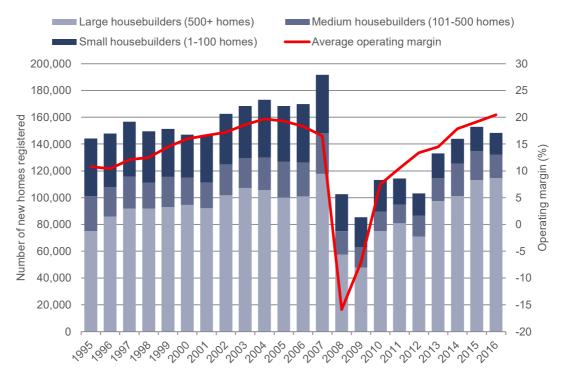


Figure 4 – Registrations by size of housebuilder compared to margin levels

Source: Thomson Reuters and NHBC (NB: These reported figures are after the cost of Overheads has been deducted)

Competitive Return to a Willing Developer



1.9 With the number of new entrants and SMEs in serious decline (as highlighted in Figure 4), this analysis highlights that existing and historic margins have been insufficient to stimulate a broader range of operators into the market. In order for the Government's targets to increase housing supply and SME operators to be realised, the level of competitive returns secured needs to be reflective of the risk and lending requirements of this key part of the sector.

Providers of Finance & Capital

- 1.10 Shareholders in the quoted housebuilders are principally institutional investors pension funds, insurance companies and private equity funds. They have a wide range of companies and sectors to choose from, including retail, house building, mining, transport, energy and telecommunications, all with different risk and return profiles. If shareholders' hurdle rates are not achieved then they will invest in other sectors, reducing the development capacity of the house building sector.
- 1.11 In the case of SMEs the profile of their finance providers is different. Given the varying covenant strength of these companies (compared to national housebuilders) the requirements of lenders for development funding are much stricter. SMEs will therefore be required to demonstrate sufficient site level margins to cover the additional risk implied by their respective covenant strength. Acknowledgment of the additional overheads and finance costs incurred by SMEs needs, therefore, to be recognised.

Market Trends

1.12 The key measures are Site Level Net Margin and ROCE associated with a cashflow that is deliverable from a funder's perspective. For a development to be viable, all of these measures need to meet acceptable target levels.

Gross vs. Net Margins

1.13 As illustrated in Figure 1, it is important to distinguish between site level margins and the Operating Margin reported in house builder accounts. This is discussed in the Harman Report, which suggests that:

"Overheads for house-building typically lie in the range of <u>5% - 10% of gross development value</u>, with only the very largest developers operating near the lower end of the scale^{**} (emphasis added)

1.14 JP Morgan's analysis⁵ of Plc housebuilder performance for the financial years 2012 and 2013 indicates that the average overheads of the quoted housebuilders (the difference between Gross Margin and Earnings Before Interest and Tax) were 6.4% and 6.0% of revenue respectively, averaging 6.2%. However, it should be highlighted that SMEs are subject to higher overheads, within the range of 5-12% of GDV. This suggests that an average of 8% for overheads is more appropriate, which when applied to a target Operating Margin range of 15% to 20% of revenue derives, at a corporate level, a Gross Margin of 23% to 28% of GDV.

⁴ Viability Testing Local Plans, Chaired by Sir John Harman, June 2012

⁵ UK Housebuilding, Europe Equity Research. J.P. Morgan. September 2013

Competitive Return to a Willing Developer



- 1.15 In viability testing, if delivery is not to be constrained, operating margins should be set at a level which facilitates developers of all shapes and sizes; as opposed to a level which relies upon the efficiencies of scale achieved solely by the larger developers.
- 1.16 Both Operating Margin and Gross Margin are quoted before deduction of the cost of paying interest on debt, which at a corporate level has averaged 3-5% of GDV in recent years. Therefore the hurdle rate for Site Level Net Margin for larger housebuilders is 20-25% of GDV. For SMEs the hurdle rate will be higher (in the region of 25-30%) to reflect their higher project finance costs.
- 1.17 This is the basis of the developer margin hurdle rate that is applicable to site level development appraisals calculating the Residual Land Value (RLV), in which the cost of debt is included separately⁶.
- 1.18 Around this average, there will be a range of site specific development risks and therefore a range of site level hurdle rates for developer margin. For example:
 - Smaller, lower density, less constrained sites are inherently less capital intensive and represent a
 lower delivery risk than costlier larger sites and higher density sites. It therefore follows that smaller,
 lower density site's hurdle rate will be below the corporate average. Although it should be noted that
 sales risk and delivery risk are inherently different. For example, a small site with low delivery risk
 can still represent a higher risk to the developer if in a high value location above the Help to Buy
 thresholds. In this case the site will require a higher hurdle rate to reflect the increased sales risk.
 - In contrast, larger complex sites requiring up-front infrastructure delivery and protracted timescales
 will be above the corporate level average. This is particularly relevant for brownfield sites where the
 extent of abnormal costs (ground conditions and remediation) is largely unknown at the outset.
 Furthermore, on large sites there is significantly more sales risk, as there is greater uncertainty
 about the strength of market conditions over the life of the development, which is likely to include a
 market downturn. Such uncertainty both in terms of cost and timings increases the risk profile and
 therefore the hurdle rate required.
 - The variance in sales rate also needs to be considered, with the relative strength of the market reflected in the risk profile of a site. It therefore follows that larger sites in weaker or over-supplied markets reflect a greater risk and subsequently require a higher hurdle rate than similar sites in stronger markets. Similarly, larger projects pose a greater sales risk as they are likely to be developed across a property cycle introducing more uncertainty.
- 1.19 The above is particularly relevant for large-scale development and regeneration areas, where large upfront costs hamper the developer's ability to achieve the required ROCE, such that a higher margin is necessary to reflect the additional risk. In these instances, ROCE becomes the primary hurdle rate as highlighted by the Harman Report:

⁶ Refer to footnote 1

Competitive Return to a Willing Developer



"Developments of large flatted blocks on previously used land in urban areas with high cash requirements will <u>demand significantly higher levels of profit to achieve an acceptable ROCE</u> than developments of a more standard, less cash intensive nature on virgin ground. Likewise, projects with significant up-front infrastructure may also require higher levels of profit to generate an acceptable ROCE."⁷

1.20 The requirements for those investing in the sector will subsequently be a minimum hurdle rate of 25%. Although it is worth highlighting that our analysis is based on typical hurdle rates on sites across the Country. It does not therefore reflect the additional cost and risk associated with delivering sites in London. In this instance, different investment requirements may be sought, reflecting significantly higher minimum hurdle rates.

Appeal Precedent

1.21 For the reasons outlined above, development margin is a key point in viability discussions and will vary depending on a number of factors. This point has been acknowledged by a number of Inspectors at appeals, including the following:

Land at The Manor, Shinfield, Reading⁸

"The appellants supported their calculations by providing letters and emails from six national housebuilders who set out their net profit margin targets for residential developments. The figures ranged from a minimum of 17% to 28%, with the usual target being in the range 20-25%. Those that differentiated between market and affordable housing in their correspondence did not set different profit margins. Due to the level and nature of the supporting evidence, I give it great weight. I conclude that the national housebuilders' figures are to be preferred and that a figure of 20% of GDV, which is at the lower end of the range, is reasonable."

Land at Lowfield Road, Rotherham¹⁰

"The Council's approach, set out in the DVs report, is that a profit of around 17.5% is reasonable for a scheme of this nature, which equates (on a 'blended basis') to 16.47% on revenue. The DV has provided evidence to support this view, based on a range of sites – identified only in general terms.

The return to a developer is inevitably going to vary considerably between one development and another, and will properly reflect the risk of a specific project. Reference has been made to a number of appeal decisions where varying levels of developer profit have been accepted. However these other decisions are of limited value, as much will depend on the individual circumstances of the particular site and development.

There are various 'rules of thumb' which are quoted when discussing developer profit, and these generally vary between 15% and 25%. However, in general, it is reasonable to assume that on more marginal sites,

lbid. p46

⁸ Ref: APP/X0360/A/12/2179141 – dated 8th January 2013

⁹ Paragraph 44

¹⁰ Ref: APP/R4408/Q/14/2216976 – dated 9th September 2014

Competitive Return to a Willing Developer



profit expectations would be higher. In this case, the developer has been very clear about the slow sales and the reasons why the site has not been mothballed, as it otherwise might have been. This background tends to support a figure in the upper part of the 'normal' range.

In this case, recognising the approach of this appellant to the use of in-house professional expertise, the appellant's proposed level of developer profit shown in the viability appraisal (22% - i.e. 15% profit and 7% overheads) is reasonable.¹¹

Land between Lydney Bypass and Highfield Road¹²

"The Council considered that due to the improving market a profit level of 17.5% would be reasonable. The Appellant on the other hand considered that 20% would be the minimum on which finance could be obtained. The amount required by a developer to undertake the development is a reflection of the anticipated risk. In this case the evidence indicates that the market is not an easy one within this part of the country. Although the Council considered that work had started on the site with the installation of the pumping station, I am not convinced that this would greatly reduce the risk element of the project. Whilst the greenfield site has an attractive position with enviable views it is not within a prime location on the edge of one of the major towns such as Gloucester or Cheltenham. Furthermore the scheme would be carried out over a relatively long time period and this would add to uncertainty in terms of future economic conditions.

Taking all of the above circumstances into account I consider that it is reasonable to adopt the Appellant's figure of 20% of gross development value as the input for Developer's profit in this case.³¹³

Land to the North and East of Lisvane, Lisvane, Cardiff¹⁴

"A blended developer profit of 20% is appropriate in this case, noting that two appeal decisions29 (at Pinn Court Farm and Shinfield) where the blended rate of 18.8% and 20% on gross development value (GDV) were found to be acceptable. The attractiveness of the site to the market is acknowledged, but this is reflected in the high GDV which has been used, which in itself introduces an increased risk if that assumption proves to be overly optimistic. The DVS has assumed that site purchase would take place in staged payments - this is a crude approach that fails to establish the appropriate value at the time that the appraisal is undertaken. The rate suggested by the DVS is the same as that adopted in relation to the adjacent, recently approved Cefn Mably Road scheme. There are significant differences between that scheme and the appeal which is at outline stage and is much larger. These differences represent an appreciably greater risk for a developer."¹⁵

¹¹ Paragraphs 31 - 34

¹² Ref: APP/P1615/Q/14/2215840 – dated 18th June 2014

¹³ Paragraphs 24 - 25

¹⁴ Ref: APP/Z6815/A/14/2224216 – dated 28th August 2015

¹⁵ Paragraph 51 (v), Pinn Court Farm ref: PP/U1105/A/13/2208393

Competitive Return to a Willing Developer



Summary

The evidence in this paper indicates that the <u>minimum</u> margin used within viability testing for development sites should be a Site Level Net Margin¹⁶ of <u>20-25% on GDV</u>, <u>blended across all tenures</u>, <u>subject to achieving a minimum site ROCE of 25%</u>, subject to consideration of the risk profile of the scheme. Those sites with a higher risk profile (i.e. longer term projects with significant upfront infrastructure costs and abnormals) will be at the upper end of this range, shorter term projects with less capital intensive infrastructure are likely to fall at the lower end.

The reference to ROCE is particularly important on large, capital intensive schemes. This needs to be achieved in addition to the Site Level Net Margin of 20-25% on GDV. Typically, the assessment of viability is undertaken using ARGUS Developer or a bespoke residual land value model. These include a developer margin and normally report on IRR not ROCE. In these cases the relevant hurdle rate for site specific appraisals is an Internal Rate of Return of <u>at least</u> 25%.

A number of viability consultants argue that a different developer margin should be applied to private and affordable housing. If this is the case, then the blended margin across all tenures should equate to the hurdle rate referred to above.

It is increasingly common for developers to purchase land prior to securing an offer from Registered Providers who themselves are subject to more market risk from the current affordable housing regime than in previous systems of funding. There is, therefore, a heightened risk associated with the affordable housing in addition to increased holding and finance costs. We would also highlight that the potential for the introduction of Starter Homes results in an additional level of risk for developers (these units being retained by the housebuilder as opposed to being sold to a Registered Provider). Receipts from Starter Homes are received later on in a project's cashflow and, to reflect this increased risk, developers will subsequently require a higher return on these units compared to 'traditional' affordable housing.

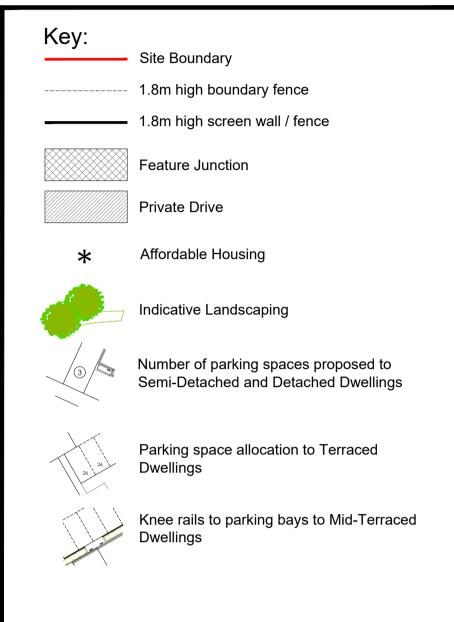
¹⁶ Please note that this excludes finance, which will be included separately in viability appraisals.

Appendix 2





HOUSETYPE	DESCRIPTION	s	QFT	NUMBER	PERCENTAG
Oakley	2 Bed, 2 Storey, Mid-Terrace	705	SQFT	14	23.73
Highfield	3 Bed, 2 Storey, End Terraced	822	SQFT	4	6.78
Huxley	3 Bed, 2 Storey, Semi-Detached	882	SQFT	2	3.39
Kingsley	3 Bed, 2 Storey	1026	SQFT	2	3.39
Beaumont	3 Bed, 2 Storey	1106	SQFT	4	6.78
Ashbury	4 Bed, 2 Storey	1225	SQFT	5	8.47
Heatherington	4 Bed, 2 Storey	1352	SQFT	5	8.47
Alderton	4 Bed, 2 Storey	1424	SQFT	5	8.47
Salisbury	4 Bed, 2 Storey	1515	SQFT	4	6.78
Marbury	4 Bed, 2 Storey	1545	SQFT	6	10.17
Wiltshire	4 Bed, 2 Storey	1618	SQFT	4	6.78
Albury	4 Bed, 2 Storey	1672	SQFT	4	6.78
TOTAL		69893	SQFT	59	
Gross Site Area		- 4		0.07	
POS			Acres Acres		Hectares Hectares
FWPumping Station					
	ance, Single-Sided Road & Existing Landscaping		Acres Acres		Hectares Hectares
ondevelopable. Enti-	ance, Single-Sided Road & Existing Landscaping	0.54	Acres	0.22	neclares
NETT SITE AREA:		5.01	ACRES	2.03	HECTARES
Gross Density:		8.31	Units/Acre	20.53	Units/Hectare
NETT DENSITY:		11 78	UNITS/ACRE	29 10	UNITS/HECTA
HET PERGITI		11.70	SHI GAONE	20.10	SIGITO/ILLOTA
Gross Footage:		9844.08	SQFT/Acre	2259.87	SQWHectare
NETT FOOTAGE:		10050 70	SQFT/ACRE		SQM/HECTAR



_		
Rev:	Description:	Date:
С	Boundary Treatments amended.	04/07/18
D	Amendments to Housing Mix.	18/07/18
Е	Plots 32, 36, 41 & 57 handed. Turning head adj. Plot 59 enlarged to aid pumping station tanker tracking.	29/11/18
F	Entrance detail revised to FCC Highways comments, turning head to the front of Plots 58 & 59 enlarged to	
	DCWW comments.	01/04/19
G	Plot 35 Substituted. Plots 18, 51 and 55 handed. Alterations to Heatherington garages	25/04/19
н	Wentworth block & Footage corrected	22/05/19
Ι	AS/OPP references changed to affordable units	02/07/19
J	House type names amended & affordable units interface distance amended	29/07/19
к	Plots 26-30 amended and rotated. Plot 25 substituted for a Marbury house type.	24/09/19
L	Beaumont & Kingsley blocks corrected.	22/10/19
М	Wiltshire house type blocks corrected.	28/10/19
Ν	Plots 38, 39, 54-59 amended. Highway retaining walls amended. Plot 39 changed to Beaumont housetype. Plot 37 changed to Alderton. Salisbury housetype plots	07/02/20
	32,35,56 & 57 replaced with extended bay version	
0	Plot 19 now indicated as OPP.	29/06/20

Macbryde Homes Limited, Macbryde House, Unit 28, St. Asaph Business Park, Ffordd Richard Davies, St Asaph, Denbighshire. LL17 0LJ. Tel. 01745 536677 Fax. 01745 536688
- Site:
Title: Proposed Site Plan
- Scale: Date: 1:500@A1 15.06.18



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Rev:

Appendix 3



