Affordable Housing Model undertaken by EDAW on behalf of East Northamptonshire Council

Review by Anthony Lee for the Planning Inspectorate

EDAW Affordable Housing Viability Model undertaken by EDAW on behalf of East Northamptonshire Council

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1 Introduction

1.1.1 Background

I have been appointed by the Planning Inspectorate as an assessor to assist Mr John Mattocks, Inspector, in the examination of the East Northamptonshire Rural North, Oundle and Thrapston Plan. In particular, I have been requested to undertake a review of the Affordable Housing Viability Model ("AHVM") by EDAW on behalf of East Northamptonshire Council. The AHVM is dated January 2009. While the aim of the AHVM is not explicitly stated, the introductory section states that the AHVM "will assist East Northamptonshire Council in advising on the viability of their Affordable Housing policy which currently sets a target of 40% in a mix of tenure types". Subsequently, the Council has revised its affordable housing target to a minimum of 20% affordable housing on sites of over 15 dwellings, but it will seek to attain a target of 40% of units, subject to specific site viability.

My brief from the Inspector is to advise on the following matters:

- The extent to which the methodology used in the AHVM is robust;
- Whether any weaknesses exist in the methodology that might suggest a different approach; and
- Whether the criticisms of the AHVM by William Davis Limited have any validity.

1.1.2 Personal introduction and qualifications

I confirm that I am Director of Affordable Housing at Atisreal Limited, where I have been employed since 2000. I have a Bachelor of Science degree and Master of Science degree in Social Policy; a Master of Arts degree in Town and Country Planning and a Doctorate in Housing Policy. I am a professional member of the Royal Institution of Chartered Surveyors and a member of the RCIS panel "*Expert Appointments in Planning Service*".

In the course of my professional business, I advise landowners, developers and local authorities on development economics, valuation and development appraisal of residential and mixed use developments. I have undertaken a number of commissions on behalf of the Homes and Communities Agency and the Communities and Local Government Department on the delivery of affordable housing. I have advised local authority and developer clients on site specific viability appraisals for schemes totalling over 29,000 residential units, with a combined GDV of £10 billion. I have also advised a number of authorities on the viability of their affordable housing policies.

1.1.3 RICS practice statement on expert witnesses

I have prepared this report in accordance with the requirements set out by the RICS in its Practice Statement *Surveyors as Expert Witnesses.*

1.1.4 Report structure

This report is comprised of four sections; a review of the AHVM methodology; a review of the inputs to the AHVM; a commentary on the William Davis critique; and finally my conclusions.

2 Methodology

2.1.1 Approach to testing viability of the affordable housing target

The AHVM tests the viability of the delivery of various levels of affordable housing, ranging from zero to 40%, by running development appraisals of nine developments using information provided by officers of the Council.

For each of the nine developments, the AHVM provides a residual land valuation, incorporating revenue from market and affordable housing units and costs of constructing the units, preparing the sites, provision of utilities and so on. Land costs and interest are then deducted, leaving a residual sum which is the developer's profit. The developer's profit is then compared to a 'norm' or 'target' level of profit to make a judgement as to whether or not the scheme can be considered viable with a range of affordable housing percentages.

2.1.2 Cashflow method

EDAW's cashflow methodology phases developments over a period of time – up to 9 years – in order that they can apply inflation to sales values. While the cashflow applies interest to outstanding balances on an annual basis, it is not a *discounted* cashflow. This means that sums received in as many as 8 years time are not discounted to reflect their present value.

Although the text refers to the data in the appraisal being "net present value and net present cost", it is not immediately obvious to me where in the cashflow a discount factor is applied to the cashflows. My reading of the numbers is that the cashflow does not attempt to discount the numbers to present value.

I recommend that EDAW be requested to explain the impact this apparent omission is likely to have on the impact of the results of the study. My own view is that the results are likely to be less favourable if the cashflow is discounted in the normal way.

2.1.3 Land value as an input

Entering the land value as an input to the model is an approach which is likely to provide a general indication of the viability of a range of affordable housing target. However, schemes are usually assessed using the Residual method – i.e. the value of the completed development is calculated and the development costs deducted (including build costs, fees and developer's profit). The residual amount is the value that should be paid for the land.

Having calculated the residual land value, this would then normally be compared to the value of the site in its existing use. If the residual land value with a given level of affordable housing and grant funding exceeds the existing use value (plus a reasonable return to the landowner to incentivise him/her to bring the site forward for development) then the site would generally be considered viable.

I would therefore have preferred to have seen an appraisal methodology which calculated the residual land value of each scheme, so that we can compare this to the existing use value of each individual site. The use of a generalised transacted land value means that the results drawn from such an analysis provide only a general indication as to the viability of affordable housing delivery. The results should therefore be considered with this caveat in mind. The Authority should recognise that when applying any policy adopted on the basis of the outputs of the AHVM to individual sites, existing use values may be higher or lower than the transacted land values used in the model.

Consequently, on a site-by-site basis, the level of affordable housing that might be yielded will vary. This is, however, already implicitly recognised in any policy that is target based.

2.1.4 Range of sensitivities tested

The AHVM appraises one set of variables for developer's profit, Section 106 contributions, and affordable housing tenure mix. In my opinion, this limits the usefulness of the study, as it gives us no sense of the impact of variations in these factors on the outturn affordable housing level. Developer's profit, in particular, has increased significantly as a result of changing requirements by banks who finance development. Their requirements may change when the market recovers and the perceived risk of lending to residential developers eases. As currently drafted, the AHVM does not attempt to engage with this factor. Similarly, if the Council wishes to seek increased levels of Section 106 contributions in the future, the impact this would have on affordable housing provision has not been tested.

If time permits, I would suggest that it might be useful to run further sensitivities of the model to reflect a range of profit levels; alternative affordable housing tenure mixes; and a range of Section 106 contributions.

In addition, it might also be helpful for the Council if the AHVM were to test some sensitivities on scheme density. Higher densities may, under some circumstances, assist in aiding financial viability thus helping to increase affordable housing delivery. However, these points are not critical to the assessment.

2.1.5 Timing of development

For the appraisals of schemes 1 to 4, the developments are phased over an eight year period with site purchase in January 2009. The text incorrectly advises that the developments are delivered over six years. The smaller schemes (5 to 9) are delivered over a two year period, but site purchase does not occur until 2011.

I have two observations on this approach. Firstly, an eight year development period for scheme 1 (which provides 685 units) appears to be appropriate, as it results in a sales rate of 114 per annum. However, schemes 2, 3 and 4 provide only 145, 125 and 150 units respectively. Extending these developments over eight year development periods results in sales rates of 24, 21 and 25 respectively. It is highly unlikely in my view that relatively modest developments such as schemes 2,3 and 4 would be delivered over such an extended period, as this would increase interest costs with no obvious benefit to the developer. If the sole purpose of adopting the extended development period is to delay unit sales until later in the programme when values are predicted to increase, this presents a somewhat false picture of the viability of the scheme, not least because the study makes no allowance for build cost inflation.

Development of schemes 5 to 9 are not assumed to start until 2012, following site purchase in 2011. This is clearly inconsistent with the approach taken for schemes 1 to 4 (which effectively start in January 2009). All the appraisals should ideally commence at the same point in time, even though they may finish at different times due to phasing of development. The Authority will need to view the results of the study in the context of market conditions at the time an application is submitted – it is therefore important to recognise that individual schemes may not fit within the timescale in the AHVM, and consequently may not benefit from increases in sales values.

2.1.6 Site selection

The written text provides no explanation of how and why the nine sites were selected. We get no sense from reading the text of how representative these nine sites are of the range of development circumstances found within the area. It would be helpful if EDAW could provide some further information on this and their view on how appropriate it is to draw conclusions from the results of the appraisals of these sites.

3 Appraisal inputs

3.1.1 Build costs

The text notes that the build costs assumed in the appraisals are based on "benchmark examples from... existing cost plans for projects in the area and are specific to affordable housing". The text asserts that "the variation in cost will not deliver the margins required to materially affect the results of the current model". No evidence is provided to support this assertion and it would be helpful if EDAW could demonstrate that the costs adopted are reflective of any extra-over costs associated with private housing in comparison to affordable.

The report does not provide any information on the benchmark costs and existing cost plans, so it is difficult for the reader to form any judgement on how applicable these costs are to the nine schemes in the report. EDAW should provide further information so that we can be assured that the existing cost plans are for schemes that correlate with the schemes being tested in the report.

The model includes a standardised allowance for abnormal costs, such as ground remediation and archaeology. Although we are given no information on the existing uses of the sites, there is likely to be a range, and I therefore query whether a standardised assumption for remediation is appropriate. Similarly, the model applies that same costs for infrastructure and servicing, yet some of the sites are possibly too small to require site roads and may already be located in populated areas with ready access to services. The provision of site plans within the report would be useful to assist in making such judgements.

In the final paragraph of the Section headed "Unit costs – New Build", the report states that "the basic rate [of build costs] has been applied to the small units and reduced for the larger units on the schemes to reflect economies of scale that are achieved in delivering larger homes". I am unsure of the validity of this assertion, but further evidence may assist. It is, however, certainly the case that economies of scale can be achieved on larger *schemes* compared to smaller schemes.

3.1.2 Abnormal costs

This section lumps genuine abnormal costs together with other development costs that are far from abnormal (professional fees, Section 106 contributions, servicing costs etc). This is merely a labelling issue, but may confuse some readers of the report.

3.1.3 Land cost

There is a very general statement at the beginning of this section that states "*we have taken a notional estimate on the value of the land based upon information on existing land deals within the area at £90k to £100k per acre to take account of volume benefits on larger land assembly*". It would be helpful for the reader to understand what is meant by the last part of this sentence and whether these "benefits" apply equally to the larger, as well as the smaller sites in the study.

We are given no information on the existing use values of the sites, so any comparison between the notional land cost and the value of the site with its current use is impossible. This means that we cannot form a judgement as to whether developers are paying appropriate prices for land.

3.1.4 Revenue

The text refers to "*current data regarding housing of this type for sale within the area*". It would be helpful for the reader to be given details of where and when these transactions took place and the property types to which they relate.

Values have been uplifted by annual increases derived from predictions of sales values increases from CBRE. However, while the sales values are inflated, build costs remain the same for the entire development period. I would question how realistic the latter assumption might be? While build costs are currently predicted by BCIS to fall, they suggest that costs will start to increase again in 2011. I see no reason why the AHVM should include increased sales values, yet exclude any changes in build costs.

3.1.5 Affordable housing revenue

The process for deriving the income from the disposal of the completed affordable housing units to a Registered Social Landlord is unclear.

For social rented units, we are told that rents derived from Cambridge Centre for Housing and Planning Research have been capitalised using a 6.25% yield. It was not stated in the text, but EDAW should confirm that the £85 per week average rent is *net* of management and maintenance costs and sinking fund allowances. I am also concerned about the adoption of a single average rent across all unit types – social rents for one bed properties are significantly different from social rents for four bed units.

For shared ownership units, the AHVM applies a blanket valuation approach of 50% of market value. This approach is generally unreliable, as it could fail to reflect the affordability of units to people who have been identified in the Housing Needs Survey or Strategic Housing Market Assessment. Household income will determine the percentage of equity that can be purchased and the rent that the purchaser can afford to pay, rather than market values. In some cases, the percentage of equity purchased plus rent on retained equity that generates a 'price payable' by an RSL that equates to 50% of market value might be unaffordable by some households on lower incomes. A preferable approach would therefore be to consider the household incomes of those identified in housing need, in order to calculate (a) the initial equity stake they can afford given any criteria set by the Council and (b) how much rent on the retained equity they can afford. This adjustment could be completed relatively easily in my view. Seeking advice on this point from locally operating RSLs might also help to expedite this change.

There is also an inaccurate statement in the second paragraph of the "Revenues" section. This states that "*the value attached to [the social rented units] represents that value which these units would require to achieve from the RSL in order to make the scheme economic for the developer*". It is not the function of any payment from an RSL to make a scheme economic for the developer – the price reflects the target rents that the RSL can charge its tenants, less appropriate deductions for management and maintenance. The RSL payment is not a form a gap funding. The developer should take account of amounts an RSL should pay for the social rented units when formulating their offer for a site.

Finally, I would suggest that EDAW investigate the profiling of payments from RSLs for affordable housing. My understanding is that the model is set up so that the income from the affordable housing is received at the same time as the market housing (i.e. after the development period). However, in most cases, the RSL will pay part of the agreed acquisition sum during the development period, providing a significant cashflow benefit to the developer. This may assist in improving overall scheme viability and could result in an increase in affordable housing. If it is not possible to accommodate this change within the time available, I would point out that the current profiling of affordable housing income would generally *underestimate* very slightly the amount of affordable housing that could be provided.

3.1.6 Clarification of unit numbers in appraisals

There appear to be some errors in unit numbers in the development appraisals at Appendix 2 which EDAW should clarify, as shown in the following table. This only has a significant impact on the overall results in a small number of cases (i.e. the smaller sites) but these errors need to be corrected to ensure the results can be relied upon.

The quality of the text in the Appendix 2 is somewhat poor and this makes it difficult in some cases to read the numbers.

Scheme number	Affordable Housing percentage	Total units in scheme	Units shown under revenue	Units shown under costs
1	40%	685	691	685
1	30%	685	683	685
1	20%	685	687	685
1	Optimum	685	687	685
2	40%	145	146	145
2	20%	145	147	145
2	Optimum	145	146	145
3	40%	125	124	125
3	30%	125	127	125
3	20%	125	123	125
4	30%	150	149	150
5	40%	11	12	11
6*	40%	11	12	12
6*	30%	11	12	12
6*	20%	11	11	12
6*	Optimum	11	12	12
9	40%	5	5	4
9***	20%	5	4	4
9***	Optimum	5	4	4

*Development appraisals also incorrectly labelled with different scheme name
** Scheme 7 incorrectly labelled and the total number of units varies between the appraisals – 9 units in 40% appraisal, 12 units in 30% and 20% appraisals and 9 units in optimum affordable appraisal. The actual unit numbers under the revenue and costs section are correct.
*** Incorrectly labelled with a different scheme name. Total units incorrectly shown as 12 in heading.

3.1.7 Other Section 106 obligations

With the exception of schemes 1 to 4, all the other schemes all assume the same level of Section 106 obligations (£41,562). Given that these schemes vary from 5 units to 12 units, I would have expected to see some variation in the levels of contributions. Otherwise, the average S106 costs per unit for a 5 unit scheme are more than double the costs for a 12 unit scheme.

3.1.8 Contingencies

A similar point to the one above applies to contingencies. A fixed sum of £50,000 has been assumed for schemes 5 to 9, despite the variance in scheme size. Contingencies should be expressed as a percentage of build costs, rather than a fixed sum.

4 Commentary on the William Davis critique

William Davis Limited ("WDL") submitted representations on the AHVM in February 2009. The headings below reflect the headings used in the document submitted to the Council.

4.1.1 Unit costs

These challenges have some validity and echo the points I raise at Section 3.1.1 of my report.

4.1.2 Abnormals

The WDL suggestion of an increase in fees to 20% is wholly unrealistic. 10% is already generous for all but the most complex schemes. However, I do agree that AHVM should incorporate additional separate allowances for stamp duty, marketing costs and acquisition fees. I do not, however, consider the proposed level of 20% to be appropriate as this would falsely exaggerate development costs. WDL mention, in particular, acquisition costs and stamp duty as being omitted from the EDAW study. Both of these costs are applied as percentage rates to land value, which is clearly a much lower sum than build costs. If these costs are to be included, they should be separately identified and applied to the most appropriate appraisal variable (in this case land acquisition costs).

The points regarding servicing costs reflect my comments at Section 3.1.1 of my report and have some validity.

4.1.3 Land costs

WDL examine the question of land costs at great length. I set out my views on an appropriate treatment of this issue at Section 2.1.3 of my report, but I would repeat that using transacted land costs in a policy appraisal is in my view inappropriate. The fact that developers have paid a certain price for land in the past (often reflecting a different policy environment) does not mean that is an appropriate input into the AHVM. If we use historic land prices in the appraisal, it automatically renders any increased affordable housing target unviable – an adjustment in land values is required to ensure that policies can work. It is therefore more appropriate in my view that an appropriate benchmark against which to test the residual land value of the nine schemes is the existing use value. On this basis, I do not agree with this challenge by WDL.

4.1.4 Revenues

WDL suggest that current market data is volatile and that any 'current' data is "highly questionable. They then proceed to provide their own values, which they suggest are more realistic than the figures in the EDAW model. In light of WDL's comments about the volatility of the market and unreliability of current data, the same comments apply equally to the values they suggest. Current values may be low due to the need for developers to heavily discount unit sales values to achieve sales in light of lack or mortgage availability on reasonable terms. Rather than simply adopting low values on the basis of a very particular set of (difficult) circumstances, providing a range of sensitivities gives us a picture of the levels of affordable housing that might be viable in future if and when market conditions improve. It is would be appropriate for an appraisal of this type to model a range of values, which might include current values, but also increased values, recognising that market conditions are likely to change.

I do not agree with WDL's assertion that an appropriate method to calculate the value of social rented housing is to simply take 25% of market value. This is a crude method and can fail to recognise the sensitivity of values to grant funding. Capitalisation of Target rents for social rented units, net of appropriate management and maintenance costs, is precisely the method that RSLs use to calculate the price that they can pay to acquire completed social rented units.

4.1.5 Scheme summaries

I do not agree with WDL's assertion that the AHVM should not attempt to model the schemes with projected changes in sales values. Modelling the schemes on the basis of today's values only would be of limited assistance to the Authority in determining the amounts of affordable housing that sites might be able to yield under different market conditions. As the plan will have a considerable life, it is absolutely necessary for the AHVM to assess both current and future conditions. There is perhaps a failing to assess the schemes on the basis of current market conditions, as I note in Section 2.1.5.

I do not agree that the graphs are "unintelligible" but I do agree that the labelling of the graphs could be improved to clarify that they tell us. Although the vertical axis is labelled as "Developer profit", examination of the graphs suggest to me that the values shown in the graph represent that outstanding balance (i.e. income minus costs) in each year of the development period. Further explanation of the meaning of the graphs would assist the reader.

WDL's assertion that profit "comes at the end of the schemes" does not have any merit and is just a quirk of the particular approach adopted to model the schemes. In a 'real' scheme, the developer would take his profit when units are sold and the end result would be a zero balance, rather than the positive residual sum that we see in the AHVM.

4.1.6 Summary and conclusions

The second bullet point is criticised, although I do not see much difference between the text in the AHVM and WDL's preferred text. I read both statements to suggest that an increased requirement for Section 106 payments could reduce the scope for affordable housing delivery in a scheme.

WDL object to the third bullet point on the grounds that the text attempts to make a forecast of market values in the future. As I have already noted, a study that simply assesses the ability of sites to deliver affordable housing in the context of current market conditions is of limited value. In my view, sensitivity testing of the results of an AHVM, using a range of future sales values and build costs, provides a valuable evidence base for an Authority to consider its affordable housing policy.

4.1.7 New Policy text

WDL make various claims about the impact of a target based system on the Planning system and housing delivery. I see no reason why the submission and consideration of viability evidence through the planning process should result in delays to the grant of planning permissions. Many authorities use viability testing as a tool to inform decision making when applicants indicate that their proposed schemes cannot meet the affordable housing target.

In respect of the final paragraph, the Homes and Communities Agency will expect to see evidence that any investment (in the form of social housing grant) does not simply subsidise the price developers pay to landowners. The viability assessment referred to above will assist in marking the case for grant to the HCA.

5 Conclusions

While there are some issues with the basic methodology adopted by EDAW for this study, it is nevertheless of assistance in assessing, in general terms, whether the Council's proposed policy approach to affordable housing is justified. These issues are summarised as follows:

- The cashflow is run in money of the day values and not discounted to reflect the deferred receipt of sales values;
- The model treats land value as a cost, rather than as an output of the appraisal (i.e. a residual land value).
- It would have been useful for the study to have run further sensitivities on factors that may change over the plan period, including a wider range of house price and build cost trajectories; alternative profit levels; and a range of Section 106 costs.
- The small schemes are phased to take full benefit from predicted increases in sales values. It should be recognised that some schemes will come forward earlier and are unlikely to be able to yield the levels of affordable that the study indicates would be possible.
- I have raised specific comments on some of the appraisal inputs, although these should be considered in the context of the purpose of the study – to assess in general terms whether the proposed affordable housing policies are justified.

Although the target based approach is criticised by WDL, I consider it to be an appropriate approach to maximising the delivery of affordable housing, while also helping to ensure that development is not frustrated. If there are genuine reasons why a site cannot meet the target (e.g. high existing use value; decontamination costs; other section 106 requirements and so on), then the site can still come forward, albeit with a lower proportion of affordable housing than the proposed headline target of 40%. Such arrangements are now common throughout England and local planning authorities are developing skills in assessing viability appraisals submitted in support of the provision of sub-target levels of affordable housing. Viability tests are also now required by the Homes and Communities Agency to support grant applications, and the ideal time to appraise grant availability is during the planning process, helping to ensure that schemes that are granted consent are deliverable.