



Brentwood Borough Council Whole Plan & CIL Viability Assessment

May 2016



Nationwide CIL Service

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Executive Summary

Purpose of the Study

1.1 The purpose of the Whole Plan Viability Study is to appraise the viability of Brentwood Borough Council's Local Plan in terms of the impact of its policies on the economic viability of the development expected to be delivered during the Plan period . The study considers policies that might affect the cost and value of development (e.g. Affordable Housing and Design and Construction Standards) in addition to the potential to accommodate Community Infrastructure Levy Charges. The area covered by the study is the Brentwood Borough Council administrative area.

1.2 Section 173 of the National Planning Policy Framework requires that plans should be deliverable ensuring that obligations and policy burdens do not threaten the viability of the developments identified in the plan. An assessment of the costs and values of each category of development is therefore required to consider whether they will yield competitive returns to a willing land owner and willing developer thus enabling the identified development to proceed.

1.3 The study also includes an assessment of the ability of different categories of development within the Local Plan area to make infrastructure contributions via a Community Infrastructure Levy (having taken account of the cost impacts of Affordable Housing delivery and other relevant policies). If there is any additional return beyond these reasonable allowances then this is the margin available to make CIL contributions. This information is provided to enable the Council to make informed decisions on the scope for future introduction of the Levy if supported.

Methodology

1.4 The viability assessment comprises a number of key stages as outlined below:

EVIDENCE BASE – LAND & PROPERTY VALUATION STUDY

1.5 Collation of an area-wide evidence base of land and property values for both residential and commercial property

EVIDENCE BASE – CONSTRUCTION COST STUDY

1.6 Collation of an area-wide evidence base of construction costs for both residential and commercial property

IDENTIFICATION OF SUB-MARKETS

1.7 Sub market identification informed by the valuation evidence gathered at stage one above, Large differences in values across a study area indicate the need to define independent sub areas

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for viability testing purposes and in turn these will inform the creation of different charging zones for Community Infrastructure Levy Purposes.

POLICY IMPACT ASSESSMENT

1.8 Identification of the policies within the plan, which will have a direct impact on the costs of development and hence the viability of development. Typical policy impacts include affordable housing requirements and sustainable construction requirements.

VIABILITY APPRAISAL

1.9 Viability assessment for both residential and commercial development scenarios based on a series of typologies which reflect the development likely to emerge over the plan period. The assessments are conducted for both greenfield and brownfield development as it is recognised this can result in significant difference in viability.

RESULTS

1.10 The viability results for both residential and commercial development typologies have been summarised below. The figures represent the margin of viability per square metre taking account of all development values and costs, plan policy impact costs and having made allowance for a competitive return to the landowner and developer. In essence a positive margin confirms whole plan viability.

RESIDENTIAL VIABILITY

1.11 The assessments of residential land and property values indicated that there were not sufficient differences in value across the Borough to justify the existence of sub-markets or application of differential value assumptions.

1.12 The following table shows the viability margins for the different residential typologies for greenfield and brownfield development

Maximum Residential CIL Rates					
	Mixed Residential Development	Town Centre Location	Edge of Village Housing	Large Family Housing	Small Housing Development
35% Affordable Housing					
Greenfield	£764	£533	£803	£824	£1,016
Brownfield	£367	£330	£405	£439	£709

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1.13 The testing showed that the Brentwood Borough Local Plan Policies are viable for all forms of housing development and demonstrate that Affordable Housing delivery at the Council's policy target of 35% delivery proposed by the Plan is deliverable.

1.14 Greenfield housing development demonstrates viable CIL rate potential of £533-£1,016 per square metre dependent on the sub-market area. For brownfield housing, the CIL rate potential is lower at £330-709 per square metre. The results are slightly skewed by the 'small housing development' scenario test of 2 units where no affordable housing delivery is assumed.

Commercial

1.15 The initial assessment of commercial land and property values indicate that there are no significant differences in values to justify differential sub-markets based on assumptions or differential CIL charging zones. The commercial category viability results are set out below but demonstrate that only food and non-food retail development categories are considered viable in terms of being able to viably accommodate CIL

 Maximum Commercial CIL Rates per sq m		
General Zone		
Charging Zone/Base Land Value	Greenfield	Brownfield
Industrial (B1b B1c B2 B8)	-£58	-£247
Office(B1a)	-£287	-£445
Hotel(C1)	-£957	-£1,113
Residential Institution (C2)	-£1,081	-£1,198
Community(D1)	-£1932	-££2069
Leisure (D2)	-£547	-£829
Agricultural	-£318	NA
Sui Generis	Car Sales -£603	Vehicle Repairs -£809
Food Supermarket Retail A1	£664	£383
General Retail A1-A5	£354	£217

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1.16 It can be seen that only food supermarket retail, with CIL potential rate of £383-£664 per square metre, dependent on existing land use and general retail with potential rates of £217-£354 provide a margin to introduce CIL charges. It is therefore recommended on the existing evidence, that all non-retail categories should not be charged CIL based.

1.17 It should be stressed that whilst the generic appraisals showed that most forms of commercial and employment development are not viable based on the test assumptions, this does not mean that this type of development is not deliverable. For consistency a full developer's profit allowance was included in all the commercial appraisals. In reality many employment developments are undertaken direct by the operators. If the development profit allowance is removed from the calculations, then much employment development would be viable and deliverable. In addition, it is common practice in mixed use schemes for the viable residential element of a development to be used to cross subsidise the delivery of the commercial component of a scheme.

SHLAA Sites

1.18 The economic viability of sites identified in the Council's SHLAA have been assessed taking account of site specific abnormal costs and mitigation factors, local plan policy impacts, affordable housing delivery and the impact of potential CIL charges.

1.19 The assessments confirm that Local Plan policies and the 35% Affordable Housing are deliverable on all sites across the plan period and that all residential sites can accommodate the draft CIL charges that are recommended without threatening economic viability.

Conclusions

1.20 The study demonstrates that most of the development proposed by the Local Plan is viable and deliverable taking account of the cost impacts of the policies proposed by the plan and the requirements for viability assessment set out in the NPPF. It is further considered that significant additional margin exists, beyond a reasonable return to the landowner and developer to accommodate CIL charges.

Executive Summary

1.21 In terms of CIL, it is recommended that there are not sufficient variations in residential viability to justify a differential zone approach to setting residential CIL rates across the Brentwood Borough area.

1.22 Taking account of the viability results, the generic nature of the tests, a reasonable buffer to allow for additional site specific abnormal costs, in the event Brentwood Borough Council wish to pursue CIL, we would recommend the following zonal rates. Brentwood Borough envisage a mixed development delivery strategy on brownfield and greenfield sites and so the rates are set within the lower brownfield viability margins with a reasonable viability buffer in excess of the generally accepted margin of 30%.

Residential CIL	
Housing	£200sqm

1.23 It is similarly recommended that a single zone approach is taken to setting commercial CIL rates. The viability assessment results indicate that all non-retail commercial uses should be zero rated.

1.24 The retail viability assessment results indicate that differential rates could be legitimately applied to both types of retail use and, in the case of food supermarket development also to scale of development. Based on the viability assessment results and taking account of a reasonable viability buffer and the issues set out in paragraph 1.17, the following Commercial CIL rates are recommended.

Non-Residential CIL	
Boroughwide	
All Non-residential uses (excepting Retail)	£0sqm
Boroughwide	
General Retail A1-A5 (excluding Food Supermarket)	£125sqm
Food Supermarket A1	£200sqm

1.25 The study is a strategic assessment of whole plan viability and as such is not intended to represent a detailed viability assessment of every individual site. The study applies the general assumptions in terms of affordable housing, planning policy costs impacts and identified site mitigation factors based on generic allowances. It is anticipated that more detailed mitigation cost and viability information may be required at planning application stage to determine the appropriate level of affordable housing and planning obligation contributions where viability issues are raised. The purpose of the study is to determine whether the development strategy proposed by the Plan is deliverable given the policy cost impacts of the Plan.

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1.26 The study illustrates that all greenfield and brownfield sites in the initial 0-5 year delivery period (i.e. the 5 year land supply) are viable based on the adopted assumptions. Viability improves in both the medium term (6-10 years) and longer term (11-15 years) with all sites demonstrating positive viability.

1.27 In conclusion, the assessment of all proposed residential sites in Brentwood Borough has been undertaken with due regard to the requirements of the NPPF and the best practice advice contained in 'Viability Testing Local Plans'. It is considered that all sites are viable across the entire plan period taking account of the Affordable/Low Cost Housing requirements and all policy impacts of the Local Plan as well as the introduction of CIL in the future.

1.28 It should be noted that this study should be seen as a strategic overview of plan level viability rather than as any specific interpretation of Brentwood Borough Council policy on the viability of any individual site or application of planning policy to affordable housing, CIL or developer contributions. Similarly the conclusions and recommendations in the report do not necessarily reflect the views of Brentwood Borough Council.

2 Introduction

2.1 The purpose of the study is to assess the overall viability of the Brentwood Borough Local Plan and potential to introduce CIL charges by assessing the economic viability of development being promoted by the Plan.

2.2 In order to provide a robust assessment, the study first uses generic development typologies to consider the cost and value impacts of the proposed plan policies and determine whether any additional viability margin exists to accommodate a Community Infrastructure Levy. The study then goes on to assess the viability of the key strategic sites which are key to the overall development strategy. The individual site assessments take account of policies in the plan, affordable housing requirements, mandatory requirements to be introduced during the Plan period such as the National Housing Standards and Sustainable Construction requirements including SUDS, the potential Community Infrastructure Levy and site specific constraints to determine whether the proposed sites are viable and deliverable in the plan period.

The NPPF and Relevant Guidance

2.3 The National Planning Policy Framework 2012 introduces a new focus on viability assessment in considering appropriate Development Plan policy. Paras 173-177 provide guidance on 'Ensuring Viability and Deliverability' in plan making. They state :-

"173. Pursuing sustainable development requires careful attention to viability and costs in plan-making and decision-taking. Plans should be deliverable. Therefore, the sites and the scale of development identified in the plan should not be subject to such a scale of obligations and policy burdens that their ability to be developed viably is threatened. To ensure viability, the costs of any requirements likely to be applied to development, such as requirements for affordable housing, standards, infrastructure contributions or other requirements should, when taking account of the normal cost of development and mitigation, provide competitive returns to a willing land owner and willing developer to enable the development to be deliverable.

174. Local planning authorities should set out their policy on local standards in the Local Plan, including requirements for affordable housing. They should assess the likely cumulative impacts on development in their area of all existing and proposed local standards, supplementary planning documents and policies that support the development plan, when added to nationally required standards. In order to be appropriate, the cumulative impact of these standards and policies should not put implementation of the plan at serious risk, and should facilitate development throughout the economic cycle. Evidence supporting the assessment should be proportionate, using only appropriate available evidence.....

177. It is equally important to ensure that there is a reasonable prospect that planned infrastructure is deliverable in a timely fashion. To facilitate this, it is important that local planning authorities understand Borough-wide development costs at the time Local Plans are drawn up. For this reason, infrastructure and development policies should be planned at the same time, in the Local Plan. Any affordable housing or local standards requirements that may be applied to development should be assessed at the plan-making stage, where possible, and kept under review."

2 Introduction

2.4 In response to the NPPF, the Local Housing Delivery Group, a cross industry group of residential property stakeholders including the House Builders Federation, Homes and Communities Agency and Local Government Association, has published more specific guidance entitled 'Viability Testing Local Plans' in June 2012.

2.5 The guidance states as an underlying principle, that :-

"An individual development can be said to be viable if, after taking account of all costs, including central and local government policy and regulatory costs and the cost and availability of development finance, the scheme provides a competitive return to the developer to ensure that development takes place and generates a land value sufficient to persuade the land owner to sell the land for the development proposed. If these conditions are not met, a scheme will not be delivered."

2.6 The guidance recommends the following stages be completed in testing Local Plan viability:-

- 1) Review Evidence Base and align existing assessment evidence
- 2) Establish Appraisal Methodology and Assumptions (including threshold land values, site and development typologies, costs of policy requirements and allowance for changes over time)
- 3) Evidence Collation and Viability Modelling (including development costs and revenues, land values, developers profit allowance)
- 4) Viability Testing and Appraisal
- 5) Review of Outputs

2.7 The guidance is not prescriptive about the use of particular financial assessment models but advises that a residual appraisal approach which tests the ability of development to yield a margin beyond all the test factors to determine viability or otherwise is widely used and accepted. The guidance sets out the key elements of viability appraisal and the factors that need to be considered to ensure robust assessment.

2.8 The current study adheres to the principles of the NPPF and 'Viability Testing Local Plans and sets out its methodology and assumptions in the following sections.

3 Methodology

The Process

There are a number of key stages to Viability Assessment which may be set out as follows.

1) Evidence Base – Land & Property Valuation Study

3.1 Establish an area wide evidence base of land and property values for development in each sub-market area. The evidence base relies on the area wide valuation study undertaken by Heb Surveyors in 2016.

2) Evidence Base – Construction Cost Study

3.2 Establish an area wide evidence base of construction costs for each category of development relevant to the local area. The study will also indicate construction rates for professional fees, warranties, statutory fees and construction contingencies. The evidence base relies on the Construction Cost Study by Gleeds undertaken in 2016. In addition specific advice on reasonable allowances for abnormal site constraints was obtained from Gleeds and is outlined in the report.

3) Identification of Sub Market Areas

3.3 The Heb Valuation Evidence considered the existence of potential sub-markets within the study area which might inform the application of differential value assumptions in the Whole Plan testing or inform the creation of differential Charging Zones as part of the progression of a Community Infrastructure Levy.

4) Policy Impact Assessment

3.4 The study will establish the policies proposed by the plan that have a direct impact on the cost of development and apportion appropriate allowances based on advice from cost consultants, Gleeds, to be factored in the viability assessment. Typically cost impacts will include sustainable construction requirements based on National Housing Standards and BREEAM standards.

3 Methodology

5) Viability Appraisal – Whole Plan Assessment & Generic CIL Tests

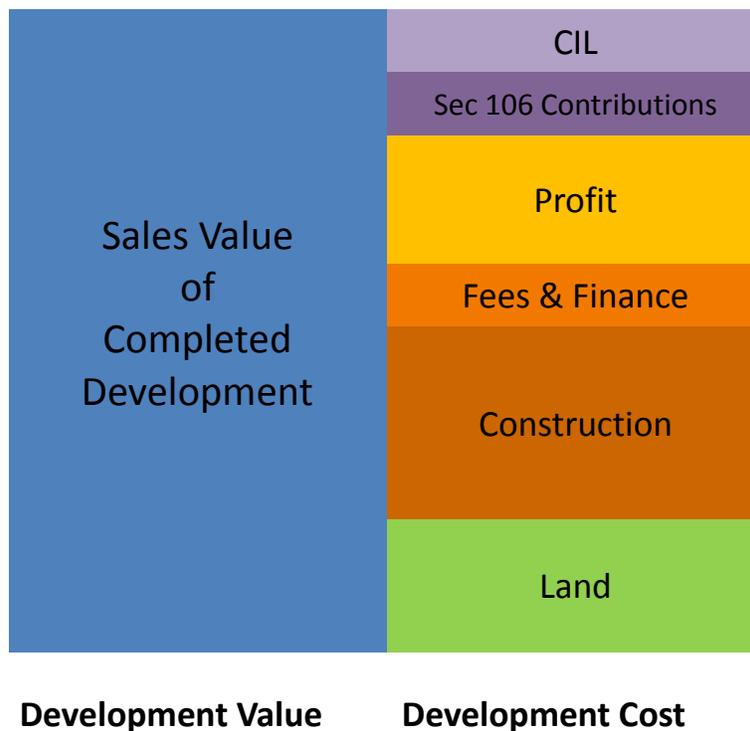
3.5 The study employs a bespoke model to assess Local Plan viability in accordance with best practice guidance (eg Local Housing Delivery group – Viability Testing Local Plans and the RICS – Financial Viability in Planning). The initial generic tests will be based on a series of development typologies to reflect the type of development likely to emerge over the plan period. The purpose of these tests is two-fold – it will firstly assess cumulative impact of the policies proposed by the plan to determine whether the overall development strategy is deliverable. Secondly the model will identify the level of additional margin, beyond a reasonable return for the landowner and developer, which may be available for the introduction of CIL.

6) Site Specific Appraisal

3.6 The proposed allocated sites undergo very similar appraisal as outlined in the above methodology but site specific factors in terms of site area, housing numbers, housing mix, abnormal cost/mitigation factors are also assessed to ensure sites are deliverable. The tests also enable the draft CIL charges to be applied to determine if they are broadly viable in the context of actual site delivery.

3 Methodology

The Development Equation



3.7 The appraisal model is illustrated by the above diagram and summarises the 'Development Equation'. On one side of the equation is the development value i.e. the sales value which will be determined by the market at any particular time. The variable element of the value in residential development appraisal will be determined by the proportion and mix of affordable housing applied to the scheme. Appropriate discounts for the relevant type of affordable housing will need to be factored into this part of the appraisal.

3.8 On the other side of the equation, the development cost includes the 'fixed elements' i.e. construction, fees, finance and developers profit. Developers profit is usually fixed as a minimum % return on gross development value generally set by the lending institution at the time. The flexible elements are the cost of land and the amount of developer contribution (CIL and Planning Obligations) sought by the Local Authority.

3.9 Economic viability is assessed using an industry standard Residual Model approach. The model subtracts the Land Value and the Fixed Development Costs from the Development Value to determine the viability or otherwise of the development and any additional margin available for CIL.

3 Methodology

Viability Assessment Model

3.10 The NCS model is based on standard development appraisal methodology, comparing development value to development cost. The model factors in a reasonable return for the landowner with the established threshold value, a reasonable profit return to the developer and the assessed cost impacts of proposed planning policies to determine if there is a positive or negative residual output. Provided the margin is positive (ie Zero or above) then the development being assessed is deemed viable. The principles of the model are illustrated below.

Development Value (Based on Floor Area) Eg 10 x 3 Bed 100sqm Houses x £2,200per sqm	£2,200,000
Development Costs	
Land Value	£400,000
Construction Costs	£870,000
Abnormal Construction Costs (Optional)	£100,000
Professional Fees (% Costs)	£90,000
Legal Fees (% Value)	£30,000
Statutory Fees (% Costs)	£30,000
Sales & Marketing Fees (% Value)	£40,000
Contingencies (% Costs)	£50,000
Section 106 Contributions/Policy Impact Cost Assumptions/CIL (Strategic Site Testing Only)	£90,000
Finance Costs (% Costs)	£100,000
Developers Profit (% Return on GDV)	£350,000
Total Costs	£2,175,000
Output	
Viability Margin	£50,000
Potential CIL Rate (CIL Appraisal only)	£50 sqm

3.11 The model will calculate the gross margin available for developer contributions. The maximum rate of CIL that could be levied without rendering the development economically unviable is calculated by dividing the gross margin by the floorspace of the development being assessed.

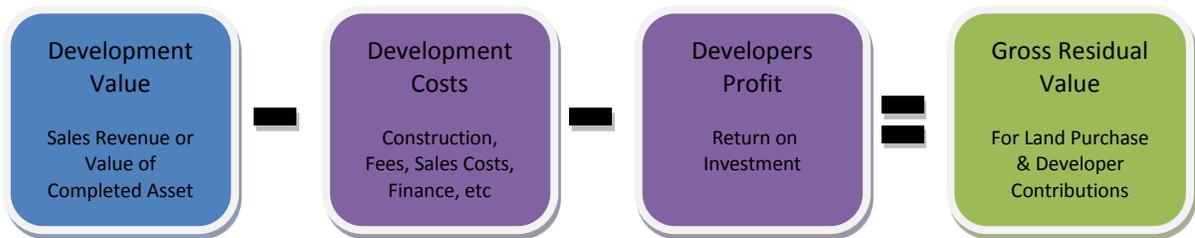
3.12 It is important to note that the model applies % proportions and further % tenure splits to the housing scenarios to reflect affordable housing discounts which will generate fractional unit numbers. The model automatically rounds to the nearest whole number and therefore some results appear to attribute value proportions to houses which do not register in the appraisal. The fractional distribution of affordable housing discounts is considered to represent the most accurate illustration of the impact of affordable housing policy on viability.

3 Methodology

Land Value Assumptions

3.13 It is generally accepted that developer contributions (Affordable Housing, CIL and S106), will be extracted from the residual land value (i.e. the margin between development value and development cost including a reasonable allowance for developers profit). Within this gross residual value will be a base land value (i.e. the minimum amount a landowner will accept to release a site) and a remaining margin for contributions.

Stage 1 – Residual Valuation



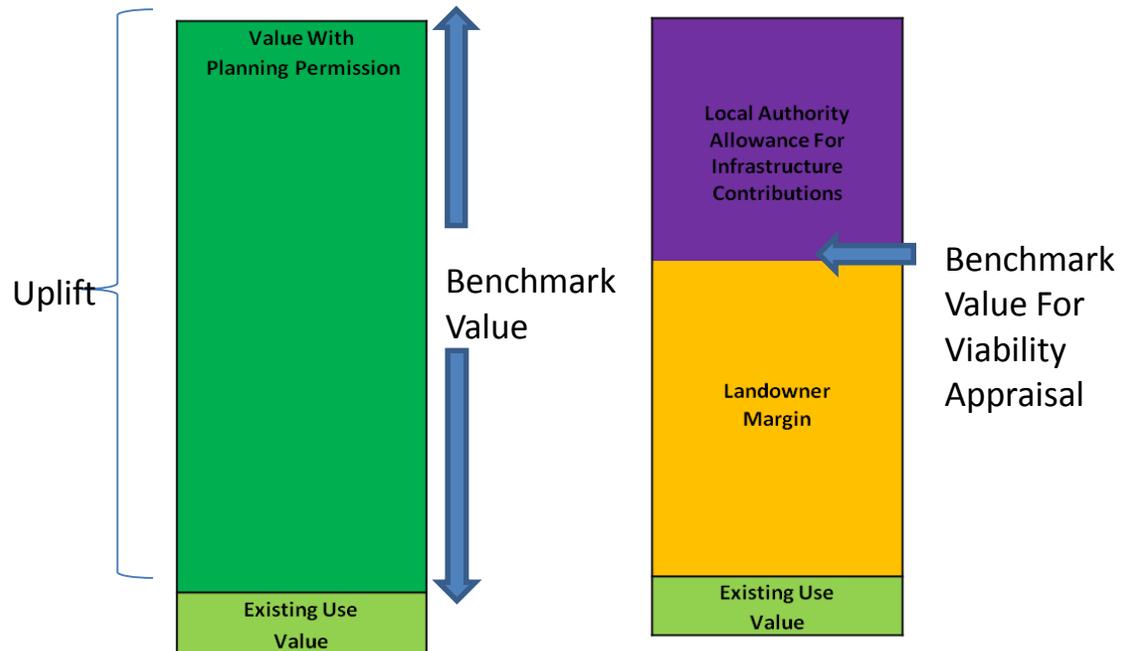
3.14 The approach to assessing the land element of the gross residual value is therefore the key to the robustness of any viability appraisal. There is no single method of establishing threshold land values for the purpose of viability assessment in planning but the NPPF and emerging best practice guidance does provide a clear steer on the appropriate approach.

Stage 2 – Establishing Base Land Value



3 Methodology

Land Value Benchmarking (Threshold Land Values)



3.15 The above diagram illustrates the principles involved in establishing a robust benchmark for land value. Land will have an existing use value (EUV) based on its market value. This is generally established by comparable evidence of the type of land being assessed (e.g. agricultural value for greenfield sites or perhaps industrial value for brownfield sites may be regarded as reasonable existing use value starting points and may be easily established from comparable market evidence)

3.16 The Alternative Use Value is established by assessing the gross residual value between development value and development cost after a reasonable allowance for development profit, assuming planning permission has been granted. The gross residual value does not make allowance for the impact of development plan policies on development cost and therefore represents the maximum potential value of land that landowners may aspire to.

3.17 In order to establish a benchmark land value for the purpose of CIL viability appraisal, it must be recognised that Local Authorities will have a reasonable expectation that, in granting planning permission, the resultant development will yield contributions towards infrastructure and affordable housing. The cost of these contributions will increase the development cost and therefore reduce the residual value available to pay for the land.

3.18 The appropriate benchmark value will therefore lie somewhere between existing use value and gross residual value based on alternative planning permission. This will of course vary significantly dependent on the category of development being assessed.

3 Methodology

3.19 The key part of this process is establishing the point on this scale that balances a reasonable return to the landowner beyond existing use value and a reasonable margin to allow for infrastructure and affordable housing contributions to the Local Authority.

Benchmarking and Threshold Land Value Guidance

3.20 Benchmarking is an approach which the Homes and Communities Agency refer to in 'Investment and Planning Obligations: Responding to the Downturn'. This guide states: *"a viable development will support a residual land value at a level sufficiently above the site's existing use value (EUUV) or alternative use value (AUV) to support a land acquisition price acceptable to the landowner"*.

3.21 The NPPF has introduced a more stringent focus on viability in planning considerations. In particular para 173 states:-

"To ensure viability, the costs of any requirements likely to be applied to development, such as requirements for affordable housing, standards, infrastructure contributions or other requirements should, when taking account of the normal cost of development and mitigation, provide competitive returns to a willing land owner and willing developer to enable the development to be deliverable"

3.22 The NPPF recognises that, in assessing viability, unless a realistic return is allowed to a landowner to incentivise release of land, development sites are not going to be released and growth will be stifled. The most recent practical advice in establishing benchmark thresholds at which landowners will release land was produced by the Local Housing Delivery Group (comprising, inter alia, the Local Government Association, the Homes and Communities Agency and the House Builders Federation) in June 2012 in response to the NPPF. 'Viability Testing Local Plans' states :-

"Another key feature of a model and its assumptions that requires early discussion will be the Threshold Land Value that is used to determine the viability of a type of site. This Threshold Land Value should represent the value at which a typical willing landowner is likely to release land for development, before payment of taxes (such as capital gains tax)".

Different approaches to Threshold Land Value are currently used within models, including consideration of:

- *Current use value with or without a premium.*
- *Apportioned percentages of uplift from current use value to residual value.*
- *Proportion of the development value.*
- *Comparison with other similar sites (market value).*

We recommend that the Threshold Land Value is based on a premium over current use values and credible alternative use values. The precise figure that should be used as an appropriate premium above current use value should be determined locally. But it is important that there is evidence that it represents a sufficient premium to persuade landowners to sell".

3 Methodology

NCS Approach to Land Value Benchmarking (Threshold Land Values)

3.23 NCS has given careful consideration to how the Threshold Land Value (i.e. the premium over existing use value) should be established.

3.24 We have concluded that adopting a fixed % over existing value is inappropriate because the premium is tied solely to existing value – which will often be very low - rather than balancing the reasonable return aspirations of the landowner to pursue a return based on alternative use as required by the NPPF. Landowners are generally aware of what their land is worth with the benefit of planning permission. Therefore a fixed % uplift over existing use value will not generally be reflective of market conditions and may not be a realistic method of establishing threshold land value.

3.25 We believe that the uplift in value resulting from planning permission should effectively be shared between the landowner (as a reasonable return to incentivise the release of land) and the Local Authority (as a margin to enable infrastructure and affordable housing contributions). The % share of the uplift will vary dependent on the particular approach of each Authority but based on our experience the landowner will expect a minimum of 50% of the uplift in order for sites to be released. Generally, if a landowner believes the Local Authority is gaining greater benefit than he is unlikely to release the site and will wait for a change in planning policy. We therefore consider that a 50:50 split is a reasonable benchmark and will generate base land values that are fair to both landowners and the Local Authority.

The Shinfield Appeal Decision Wokingham (APP/X0360/A/12/2179141) in January 2013 has provided clear support for this approach to establishing a ‘reasonable return the landowner’ under the requirements of the NPPF. The case revolved around the level of affordable housing and developer contributions that could be reasonably required and in turn the decision hinged on the land value allowed to the applicant as a ‘reasonable return’ to incentivise release of the site. The Inspector held that the appropriate approach to establishing the benchmark or threshold land value would be to split the uplift in value resulting from planning permission for the Alternative Use - 50:50 between landowner and the community.

The Threshold Land Value is established as follows :-

Existing Use Value + % Share Of Uplift from Planning Permission = Threshold Land Value

3.26 The resultant threshold values are then checked against market comparable evidence of land transactions in the Authority’s area by our valuation team to ensure they are realistic. We believe this is a robust approach which is demonstrably fair to landowners and more importantly an approach which has been accepted at CIL and Local Plan Examinations we have undertaken.

3 Methodology

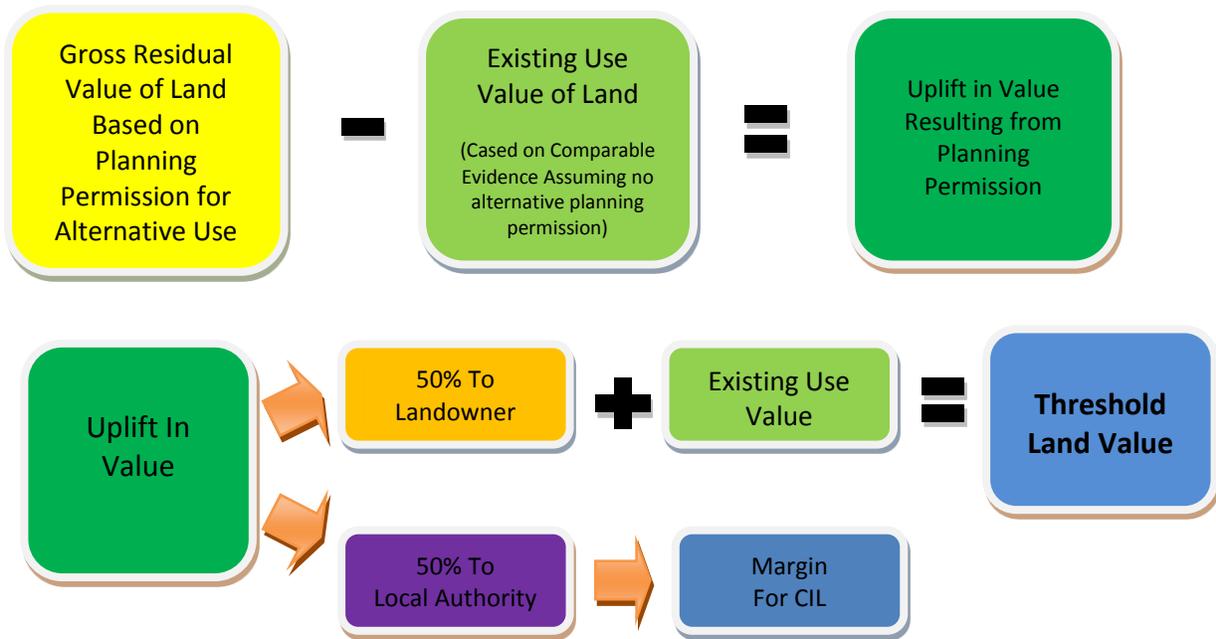
Worked Example Illustrating % over Existing Use vs % Share of Uplift

3.27 A landowner owns a 1 Hectare field at the edge of a settlement. The land is proposed to be allocated for residential development. Agricultural value is £20,000 per Ha. Residential land is being sold in this area for £1,000,000 per Ha. For the purposes of CIL viability assessment what should this Greenfield site be valued at?

Using Fixed % over EUV the land would be valued at £24,000 (£20,000 + 20%)

Using % Share of Uplift in Value the land would be valued at £510,000 (£20,000 + 50% of the uplift between £20,000 and £1,000,000) – realising a market return for the landowner but reserving a substantial proportion of the uplift for infrastructure contribution.

Benchmarking Based on % Share of Uplift in Land Value



3 Methodology

Brownfield and Greenfield Land Value Benchmarks

3.28 In order to represent the likely range of benchmark scenarios that might emerge in the plan period for the appraisal it will be necessary to test alternative threshold land value scenarios. A greenfield scenario will represent the best case for CIL as it represents the highest uplift in value resulting from planning permission. The greenfield existing use is based on agricultural value

3.29 The median brownfield position recognises that existing commercial sites will have an established value. The existing use value is based on a low value brownfield use (industrial). The viability testing firstly assesses the gross residual value (the maximum potential value of land based on total development value less development cost with no allowance for affordable housing, sec 106 contributions or planning policy cost impacts). This is then used to apportion the share of the potential uplift in value to the greenfield and brownfield benchmarks. This is considered to represent a reasonable scope of land value scenarios in that change from a high value use (e.g. retail) to a low value use (e.g. industrial) is unlikely.

3.30 Actual market evidence will not always be available for all categories of development. In these circumstances the valuation team make reasoned assumptions.

Residential

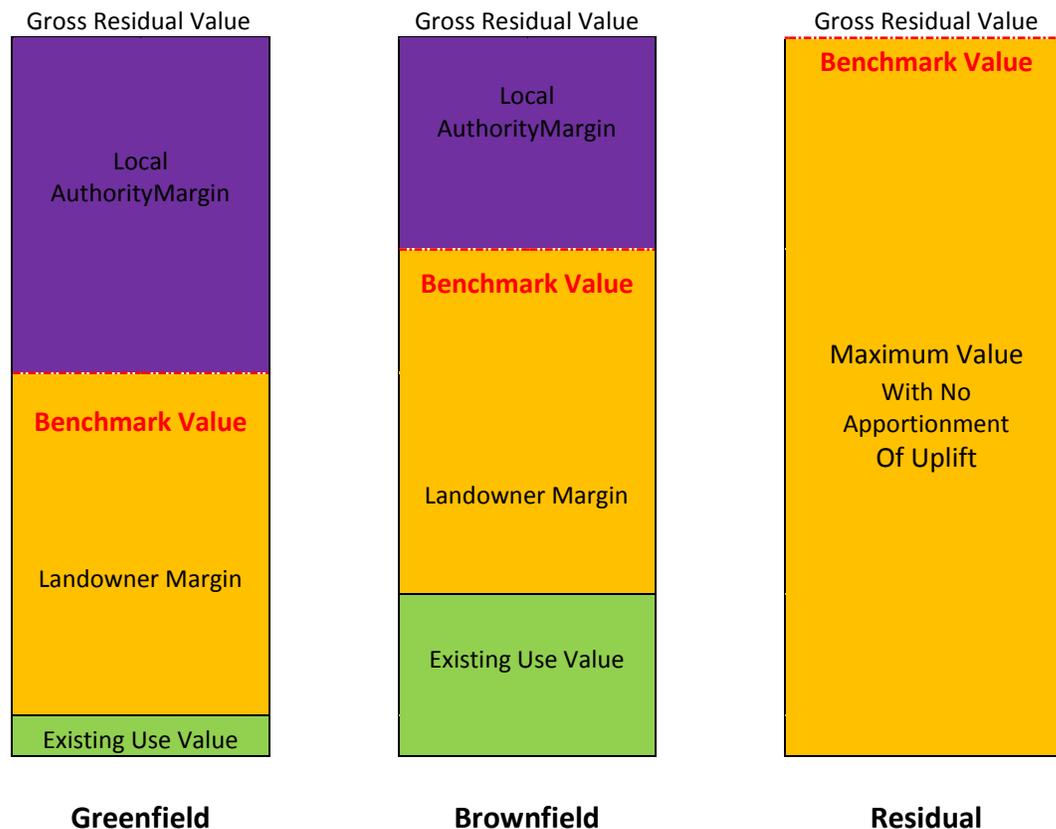
Benchmark 1	Greenfield	Agricultural – Residential (Maximum CIL Potential)
Benchmark 2	Brownfield	Industrial – Residential

Commercial

Benchmark 1	Greenfield	Agricultural – Proposed Use (Maximum CIL Potential)
Benchmark 2	Brownfield	Industrial – Proposed Use

3.31 The viability study assumes that affordable housing land has limited value as development costs form a very high proportion of the ultimate discounted sale value of the property. The appraisals apply a 30% proportion of the relevant market plot value to the affordable housing plots.

3 Methodology



3.32 The above diagram illustrates the concept of Benchmark Land Value. The level of existing use value for the three benchmarks is illustrated by the green shading. The uplift in value from existing use value to proposed use value is illustrated by the blue and gold shading. The gold shading represents the proportion of the uplift allowed to the landowner for profit. The blue shading represents the allowance of the uplift for developer contributions to the Local Authority. The Residual Value assumes maximum value with planning permission with no allowance for planning policy cost impacts. This benchmark is used solely to generate the brownfield and greenfield threshold values.

3.33 Whilst brownfield land evaluation with a higher benchmark land value will necessarily indicate that less viability margin exists for CIL, it should be acknowledged that brownfield sites will often contain existing buildings which may be used to claim CIL relief in calculating the net CIL liability. This should be taken into account in setting CIL rates.

4 Appraisal Assumptions

Development Categories

4.1 In order to ensure that the study is sufficiently comprehensive to inform a Differential Rate CIL system, all categories of development in the Use Classes Order will be considered, including a relevant sample of Sui Generis uses to reflect typical developments in the Brentwood Borough Local plan area, as follows :-

Residential (C3) - Based on varying residential development scenarios and factoring in the affordable housing requirements of the Authority. Land values are assessed based on house type plots. Sales values are assessed on per sqm rates.

Commercial - The following categories are considered. Land Values and Gross Development Values are assessed on sqm basis.

Industry (B1(b)B1(c), B2, B8)

Offices (B1a)

Food Supermarket Retail (A1)

General Retail (A1, A2, A3, A4, A5)

Hotels (C1)

Residential Institutions (C2)

Institutional and Community (D1)

Leisure (D2)

Agricultural

Sui Generis - Vehicle Sales

Sui Generis – Car Repairs

Sub Market Areas and Potential Charging Zones

4.2 The Heb valuation study considered evidence of residential land and property values across Brentwood Borough and concluded that there were not sufficient distinctions between sales prices to warrant differential value assumptions being made in the Whole Plan Viability Assessment and, potentially, a differential rate approach to CIL based on geographical zones.

4.3 The variations in commercial values were not considered significant enough across the Borough to justify the application of differential assumptions based on sub-market areas or to indicate a differential charging zone approach to CIL.

4 Appraisal Assumptions

Affordable Housing

4.4 A series of residential viability tests have been undertaken, reflecting affordable housing delivery at the policy level of 35%. The following extract from a generic sample residential viability appraisal model illustrates how affordable housing is factored into the residential valuation assessment. The relevant variables (e.g. unit numbers, types, sizes, affordable proportion, tenure mix etc.) are inputted into the appropriate cells. The model will then calculate the overall value of the development taking account of the relevant affordable unit discounts.

DEVELOPMENT SCENARIO	Mixed Residential Development				Apartments	10
BASE LAND VALUE SCENARIO	Greenfield to Residential				2 bed houses	20
DEVELOPMENT LOCATION	Urban Zone 1				3 Bed houses	40
DEVELOPMENT DETAILS	100	Total Units			4 bed houses	20
Affordable Proportion	30%	30	Affordable Units		5 bed house	10
Affordable Mix	30%	Intermediate	40%	Social Rent	30%	Affordable Rent
Development Floorspace	6489	Sqm Market Housing	2,163	Sqm Affordable Housing		
Development Value						
Market Houses						
7	Apartments	65	sqm	2000	£ per sqm	£910,000
14	2 bed houses	70	sqm	2200	£ per sqm	£2,156,000
28	3 Bed houses	88	sqm	2200	£ per sqm	£5,420,800
14	4 bed houses	115	sqm	2200	£ per sqm	£3,542,000
7	5 bed house	140	sqm	2200	£ per sqm	£2,156,000
Intermediate Houses						
		60%	Market Value			
3	Apartments	65	Sqm	1200	£ per sqm	£210,600
5	2 Bed house	70	Sqm	1320	£ per sqm	£415,800
2	3 Bed House	88	Sqm	1320	£ per sqm	£209,088
Social Rent Houses						
		40%	Market Value			
4	Apartments	65	sqm	800	£ per sqm	£187,200
6	2 Bed house	70	sqm	880	£ per sqm	£369,600
2	3 Bed House	88	sqm	880	£ per sqm	£185,856
Affordable Rent Houses						
		50%	Market Value			
3	Apartments	65	sqm	1000	£ per sqm	£175,500
5	2 Bed house	70	sqm	1100	£ per sqm	£346,500
2	3 Bed House	88	sqm	1100	£ per sqm	£174,240
100	Total Units					
Development Value						£16,459,184

It is important to note that the model applies % proportions and further % tenure splits to the housing scenarios which will generate fractional unit numbers. The model automatically rounds to the nearest whole number and therefore some results appear to attribute value proportions to houses which do not register in the appraisal. The fractional distribution of affordable housing discounts is considered to represent the most accurate illustration of the impact of affordable housing policy on viability.

4 Appraisal Assumptions

4.5 The following Affordable Housing Assumptions have been agreed for the purpose of the residential viability appraisals. The assumptions relate to the overall proportion of affordable housing, the tenure mix between Intermediate, Social Rent and Affordable Rent housing types. Finally the transfer values in terms of % of open market value are set out for each tenure type. The transfer value equates to the assumed price paid by the registered housing provider to the developer and is assessed as a discounted proportion of the open market value of the property in relation to the type (tenure) of affordable housing.

Affordable Housing				
	Proportion %		Tenure Mix %	
		Intermediate	Social Rent	Affordable Rent
Affordable Housing	35%	15%		85%
Transfer Values		70%		45%

4.7 The affordable assumptions were applied to all residential scenario testing with the exception of the small housing site where the 10 unit Government based threshold was applied. For the smaller unit number tests the proportional and tenure splits result in fractions of unit numbers. In these cases the discounts may be considered to equate to the impact of off-site contributions.

Development Density

4.8 Density is an important factor in determining gross development value and land value. Density assumptions for commercial development will be specific to the development category. For instance the floorplate for industrial development is generally around 50% of the site area to take account of external servicing, storage and parking, Offices will vary significantly dependent on location, town centre offices may take up 100% of the site area whereas out of town locations where car parking is a primary consideration, the floorplate may be only 25% of the site area. Food retailing generally has high car parking requirements and large site areas compared to floorplates.

The land : floorplate assumptions for commercial development are as follows:-

- Industrial 2:1
- Offices 2:1
- General Retail 1.5:1 (shopping parades, local centres etc.)
- Food retail 3:1
- Leisure 3:1
- Hotels 2:1
- Residential Institutions 1.5:1
- Community Uses 1.5:1
- Other Uses 2:1

4 Appraisal Assumptions

4.9 Residential densities vary significantly dependent on house type mix and location. Mixed housing developments may vary from 10-50 dwellings per Hectare. Town Centre apartment schemes may reach densities of over 150 units per Hectare. We generate plot values for residential viability assessment related to specific house types. The plot values allow for standard open space requirements per Hectare. The densities adopted in the study reflect the assumptions of the Local Authority on the type of development that is likely to emerge during the plan period.

4.10 The density assumptions for house types related to plot values are as follows :-

Apartment	100 units per Ha
2 Bed House	40 units per Ha
3 Bed House	35 units per Ha
4 Bed House	25 units per Ha
5 Bed House	20 units per Ha

House Types and Mix

4.11 The study uses the following standard house types as the basis for valuation and viability testing as unit types that are compliant with National Housing standards and meet minimum Local Plan policy requirements.

Apartment	60 sqm
2 Bed House	75 sqm
3 Bed House	90 sqm
4 Bed House	120 sqm
5 Bed House	150 sqm

4.12 Housing values and costs are based on the same gross internal area. However apartments will contain circulation space (stairwells, lifts, access corridors) which will incur construction cost but which is not directly valued. We make an additional construction cost allowance of 15% to reflect the difference between gross and net floorspace.

4 Appraisal Assumptions

Residential Development Scenarios

4.13 The study tests a series of residential development scenarios to reflect general types of development that are likely to emerge over the plan period.

4.14 For residential development, five scenarios were considered. The list does not attempt to cover every possible development in the Borough but provides an overview of residential development in the plan period.

1. Mixed Housing (Apartments, 2, 3, 4 & 5 Bed Housing)	80 Units
2. Town Centre Location (Apartments)	200 Units
3. Village Edge Housing (3 & 4 Bed Housing)	15 Units
4. Large Family Housing (4 & 5 Bed Housing)	12 Units
5. Small Housing Development (2 Bed Housing)	2 Units

Commercial Development Scenarios

4.15 The CIL appraisal tests all forms of commercial development broken down into use class order categories. For completeness the appraisal includes a sample of sui generis uses. A typical form of development that might emerge during the plan period, is tested within each use class.

4.16 The density assumptions for commercial development will be specific to the development category. For instance the floorplate for industrial development is generally around 50% of the site area to take account of external servicing, storage and parking. Offices will vary significantly dependent on location, town centre offices may take up 100% of the site area whereas out of town locations where car parking is a primary consideration, the floorplate may be only 25% of the site area. Food retailing generally has high car parking requirements and large site areas compared to floorplates.

4.17 The viability model also makes allowance for net:gross floorspace. In many forms of commercial development such as industrial and retail, generally the entire internal floorspace is deemed lettable and therefore values per sqm and construction costs per sqm apply to the same area. However in some commercial categories (e.g. offices) some spaces are not considered lettable (corridors, stairwells, lifts etc.) and therefore the values and costs must be applied differentially. The net:gross floorspace ratio enables this adjustment to be taken into account.

4.18 The table below illustrates the commercial category and development sample testing as well as the density assumptions and net:gross floorspace ratio for each category. In acknowledgement of consultation responses to initial retail viability work more detailed assessment of retail viability has been undertaken in respect to use and scale of development to reflect the type of general retail (A1-A5) and food supermarket (A1) development considered likely to emerge over the plan period.

4 Appraisal Assumptions

Commercial Development Sample Typology					
Unit Size & Land Plot Ratio					
		Unit Size Sqm	Plot Ratio		Sample
			%	Gross:Net	
Industrial	B1b B1c B2 B8	1000	200%	1.0	Factory Unit
Office	B1a	1000	200%	1.2	Office Building
Food Retail	A1	3000	300%	1.0	Supermarket
General Retail	A 1 – A5	300	150%	1.0	Roadside Type Shop Unit
Residential Inst	C2	4000	150%	1.2	Care Facility
Hotels	C3	3000	200%	1.2	Mid Range Hotel
Community	D1	200	150%	1.0	Community Centre
Leisure	D2	2500	300%	1.0	Bowling Alley
Agricultural		500	200%	1.0	Farm Store
Sui Generis	Car Sales	1000	200%	1.0	Car Showroom
Sui Generis	Vehicle Repairs	300	200%	1.0	Repair Garage

Sustainable Construction Standards

4.19 It is acknowledged that the Code for Sustainable Homes are being replaced by changes to the Building Regulations based on the National Housing Standards. The latest government guidance is that forthcoming Building Regulation changes will not impose standards beyond an equivalent of CoSH 4 and the cost rates adopted in the study reflect this.

4.20 The Commercial Viability assessments are based on BREEAM 'Excellent' construction rates.

Construction Costs

4.21 The construction rates will reflect allowances for external works, drainage, servicing preliminaries and contractor's overhead and profit. The viability assessment will include a 5% allowance for construction contingencies.

4.22 The following residential construction rates are adopted in the study to reflect National Housing Standards, Category 2 Dwellings and the water and space standards of Brentwood Borough Council. Whilst the Code for Sustainable Homes standards have been withdrawn, the cost parameters that inform them remain a useful guide to the cost implications of the National Housing standards and are considered within the study.

4 Appraisal Assumptions

Residential Construction Cost Sqm		
Apartments	1210	sqm
2 bed houses	1031	sqm
3 Bed houses	1031	sqm
4 bed houses	1031	sqm
5 bed house	1031	sqm

Commercial Construction Cost Sqm	
552	Factory Unit
1264	Office Building
1134	Supermarket
785	Roadside Retail Unit
1218	Care Facility
1715	Mid Range Hotel
2451	Community Centre
903	Bowling Alley
485	Farm Store
1080	Car Showroom
962	Repair Garage

Abnormal Construction Costs

4.23 Most development will involve some degree of exceptional or 'abnormal' construction cost. Brownfield development may have a range of issues to deal with to bring a site into a 'developable' state such as demolition, contamination, utilities diversion etc. Whole Plan and CIL Viability Assessment is based on generic tests and it would be unrealistic to make assumptions over average abnormal costs to cover such a wide range of scenarios. In reality abnormal cost issues like site contamination are reflected in reductions to land values so making additional generic abnormal cost assumptions would effectively be double counting costs unless the land value allowances were adjusted accordingly.

4.24 It is considered better to bear the unknown costs of development in mind when setting CIL rates and not fix rates at the absolute margin of viability. Nevertheless, for the assessment of the LAPP sites, where there is specific evidence of abnormal site constraint costs, these have been factored into the study. The abnormal assumptions are set out in the LAPP Site Appraisal section.

Policy Cost Impacts & Planning Obligation Contributions

4.25 The study seeks to review Whole Plan Viability and therefore firstly assesses the potential cost impacts of the proposed policies in the plan to determine appropriate cost assumptions in the viability assessments and broadly determine if planned development is viable.

4 Appraisal Assumptions

4.26 CIL may replace some if not all planning obligation contributions. The second purpose of the study is to test the maximum margin available for CIL that is available from various types of development. CIL, if adopted, will represent the first 'slice' of tax on development. Planning Obligations may be used to top up contributions on a site specific basis subject to viability appraisal at planning application stage. Nevertheless the CIL Guidance 2014 (contained in the National Planning Practice Guidance) indicates that Authorities should demonstrate that the development plan is deliverable by funding infrastructure through a mixture of CIL and planning obligation contributions in the event that the Authority does not intend to completely replace planning obligations with CIL.

4.27 Costs have been factored into the viability appraisals to reflect the impact of relevant development plan policy and the residual use of planning obligations for site specific mitigation. Based on historic evidence of planning obligation contributions over the last five years (excluding Affordable Housing which is factored in separately) the following cost allowances have been adopted in the study:-

Residual Planning Obligations for site specific mitigation	£2000 per dwelling
	£20 per sqm commercial

4.28 Historical evidence demonstrates that where planning obligations have been charged these amount to an average of £1,908 per dwelling and £13 per sqm for commercial development (where Sec 106 contributions have been charged – therefore the true average across all development would be lower, so the figures represent the worst case position). It is likely that CIL will replace a significant part of this funding requirement in the future. Therefore an ongoing allowance of £2000 per dwelling has been made to reflect a worst case for potential future contributions for residential development. The allowance has been rounded up to £20sqm for commercial development.

4.29 Costs have been factored into the viability appraisals to reflect the impact of relevant development plan policies and the residual use of planning obligations for site specific mitigation. The cost impact of these mitigation measures has been assessed by Gleeds and may be summarised as follows :-

ACCESSIBILITY STANDARDS - £20sqm

The appraisals test the impact of requiring all homes to be built to Category 2 standard for accessibility. This is estimated to add £20sqm over National Housing Standards equivalent build cost allowance.

WATER CONSERVATION STANDARDS

The higher optional water standard of 110 lpd is considered to be covered by the adopted construction cost rates (equivalent of CoSH Code 4) and do not require any additional allowance.

4 Appraisal Assumptions

ENERGY

No additional allowance has been made for Zero Carbon costs in view of the Government's recent policy change on this issue.

BREAAM Standards

The construction costs for commercial development make allowance for BREAAM 'Excellent' rating including additional professional fees.

SPACE STANDARDS

The residential unit sizes adopted in the appraisals comply with National Space Standards.

Developers Profit

4.30 Developer's profit is generally fixed as a % return on gross development value or return on the cost of development to reflect the developer's risk. In current market conditions, and based on the assumed lending conditions of the financial institutions, a 20% return on GDV is used in the residential viability appraisals to reflect speculative risk on the market housing units. However it must be acknowledged that affordable housing does not carry the same speculative risk as it effectively pre-sold. There is significant evidence of this 'split profit' approach being accepted as a legitimate approach in Whole Plan Viability and Community Infrastructure Levy Examinations and Affordable Housing Sec 106 BC Appeals.

4.31 In response to representations by house builders the profit allowance on the affordable housing element has been increased from 6% to 10% and is considered to represent a reasonable approach to the 'competitive return' required by the NPPF. It should also be recognised that a 'competitive profit' will vary in relation to prevailing economic conditions and will generally reduce as conditions improve, generally remaining within a 15-20% range for speculative property.

4.32 In the generic commercial development assessments, a 17.5% profit return is applied in recognition that most development will be pre-let or pre-sold with a reduced level of risk. If it is considered that industrial and other forms of commercial are likely to be operator rather than developer led, this allowance may be further reduced to a 5-10% allowance to reflect an allowance for operational/opportunity cost rather than a traditional development risk.

Property Sales Values

4.33 The sale value of the development category will be determined by the market at any particular time and will be influenced by a variety of locational, supply and demand factors as well as the availability of finance. The study uses up to date comparable evidence to give an accurate representation of market circumstances.

4 Appraisal Assumptions

4.34 A valuation study of all categories of residential and commercial property has been undertaken by HEB Chartered Surveyors in July 2015. A copy of the report is attached at Appendix I.

Residential Sales Values					
Charging Zone	Sales Value £sqm				
	Apartment	2 Bed	3 Bed	4 Bed	5 Bed
Boroughwide	4,600	4,600	4,400	4,400	4,300

Commercial Sales Values Sqm		
		Charging Zones
		Area Wide
Industrial		950
Office		2000
Food Retail	A1	3000
General Retail	A1-A5	2000
Residential Inst		800
Hotels		2400
Community		915
Leisure		1200
Agricultural		350
Sui Generis	Car Sales	1800
Sui Generis	Vehicle Repairs	950

Land Value Allowances - Residential

4.35 Following the land value benchmarking 'uplift split' methodology set out in Section 3 the following greenfield and brownfield existing residential land use value assumptions are applied to the study. The gross residual value (the maximum potential value of land assuming planning permission but with no planning policy, affordable housing sec 106 or CIL cost impacts). An example for Mixed Housing in the High Value zone is illustrated in the table below.

Land Value	£20000	Existing Greenfield (agricultural) Per Ha Brownfield (equivalent general commercial) Per Ha	Gross Residual Residential Value per Ha	Uplift	50%
	£457,000				
	£2,358,065				

4.36 50% of the uplift in value between existing use and the gross residual value of alternative use with planning permission is applied to generate benchmarked land values per Ha. These land

4 Appraisal Assumptions

values are then divided by the assumed unit type densities to generate the individual greenfield and brownfield plot values to be applied to the appraisals.

EUV	+	50% of Uplift in Value	=	Threshold Land Value
Greenfield		£20,000 + 50% (2,358,065 - £20,000)	=	£1,189,033 per Ha
Brownfield		£457,000 + 50% (£2,358,065 - £457,000)	=	£1,407,533 per Ha

Density Assumptions	Apt	2 Bed	3 Bed	4 Bed	5 Bed
	100	40	35	25	20
LAND VALUES (Plot Values)					
	Apt	2 Bed	3 Bed	4 Bed	5 Bed
Greenfield	£11890	£29726	£33972	£47561	£59452
Brownfield	£14075	£35188	£40215	£56301	£70377

4.37 The complete set of gross residual residential values for all the residential tests from which the benchmarked threshold land value allowances were derived, is set out in the table below. Apartments in the low and medium zones demonstrated negative residual land values so a minimum allowance of £250,000 per Ha was applied.

Gross Residual Land Value per Ha	
Mixed Residential Development	6960137
Town Centre Location	12311700
Village Edge Housing	6637575
Large Family Housing	6383375
Small Housing Development	6976605

Land Value Allowances - Commercial

4.38 The approach to commercial land value allowances is the same in principle. Obviously there will be a broad spectrum of residual land values dependent on the commercial use. A number of residual land calculations for commercial categories actually demonstrate negative values – which is clearly unrealistic for the purpose of viability appraisal. Therefore where residual values are less than market comparable evidence the market comparable is used as the minimum gross residual figure. In the Brentwood Borough assessments only retail gross residual values exceeded these market comparable benchmarks.

4 Appraisal Assumptions

4.40 The following provides an example threshold land value allowances food supermarket retail

	EUV	+	50% of Uplift in Value	=	Threshold Land Value
Greenfield	£22,000	+	50% (£5,152,165 - £22,000)	=	£2,587,083 per Ha
Brownfield	£1,700,000	+	50% (£5,152,165 - £1,700,000)	=	£3,426,083 per Ha

4.41 The greenfield and brownfield land value threshold allowances are all set out within the commercial viability appraisals but in summary the gross residual values on which they are based may be summarised as follows :-

Commercial Residual Land Values	Area Wide
Industrial Land Values per Ha	
Residual Land Value per Ha	1700000
Office Land Values per Ha	
Residual Land Value per Ha	1700000
Food Retail Land Values per Ha	
Residual Land Value per Ha	5153165
General Retail Land Values per Ha	
Residual Land Value per Ha	3626000
Residential Institution Land Values per Ha	
Residual Land Value per Ha	1500000
Hotel Land Values per Ha	
Residual Land Value per Ha	2000000
Community Use Land Values per Ha	
Residual Land Value per Ha	1500000
Leisure Land Values per Ha	
Residual Land Value per Ha	2000000
Agricultural Land Values per Ha	
Comparable Land Value per Ha	22000

Fees, Finance and Other Cost Allowances

4.42 The following 'industry standard' fee and cost allowances are applied to the appraisals.

4 Appraisal Assumptions

Residential Development Cost Assumptions				
Professional Fees			8.0%	Construction Cost
Legal Fees			0.5%	GDV
Statutory Fees			1.1%	Construction Cost
Sales/Marketing Costs			2.0%	Market Units Value
Contingencies			5.0%	Construction Cost
Planning Obligations			2000	£ per Dwelling
			20	£ per sqm Commercial
Interest	5.0%	12	Month Construction	3-6 Mth Sales Void
Arrangement Fee	1.0%	Cost		

5 Viability Appraisal Results

5.1 The results of the generic Viability Testing are set out in the tables below. In order to reflect the policy position of the Council the residential viability tests were undertaken on the assumption that schemes would deliver 35% Affordable Housing and are based on a 20% profit allowance on the market housing element and a 10% profit allowance on the affordable element.

5.2 Any positive figures confirm that the category of development tested is economically viable in the context of Whole Plan viability and the impact of planning policies. The level of positive viability indicates the potential additional margin for CIL charges in £ per sqm. The commercial table illustrates the potential CIL rates across the whole Authority area.

5.3 Each category of development produces a greenfield and brownfield result in each test area. These results reflect the benchmark land value scenario. The first result assumes greenfield development which generally represents the highest uplift in value from current use and therefore will produce the highest potential CIL Rate. The second result assumes that development will emerge from low value brownfield land.

Brentwood Borough Residential CIL Appraisal					
	Mixed Residential Development	Town Centre Location	Edge of Village Housing	Large Family Housing	Small Housing Development
35% Affordable Housing					
Greenfield	£764	£533	£803	£824	£1,016
Brownfield	£367	£330	£405	£439	£709

5.4 It should be recognised that the CIL Rates that have emerged from the study are maximum potential rates, based on optimum development conditions. The viability tests are necessarily generic and do not factor in site specific abnormal costs that may be encountered on many development sites. The tests produce maximum contributions for infrastructure and therefore ultimate CIL charges should consider an appropriate ‘viability buffer’ to account for additional unforeseen costs and site specific abnormalities.

5.5 The results of the viability testing clearly demonstrate that Affordable Housing delivery at the Council’s policy target of 35% enables delivery of all housing development proposed by the Plan across the Borough with a substantial viability margin for flexibility and potentially permitting a significant viability margin for CIL.

5 Viability Appraisal Results

 Maximum Commercial CIL Rates per sq m		
Charging Zone/Base Land Value	General Zone	
	Greenfield	Brownfield
Industrial (B1b B1c B2 B8)	-£58	-£247
Office(B1a)	-£287	-£445
Hotel(C1)	-£957	-£1,113
Residential Institution (C2)	-£1,081	-£1,198
Community(D1)	-£1932	-££2069
Leisure (D2)	-£547	-£829
Agricultural	-£318	NA
Sui Generis	Car Sales -£603	Vehicle Repairs -£809
Food Supermarket Retail A1	£664	£383
General Retail A1-A5	£354	£217

5.6 Most of the above commercial use class appraisals indicated negative viability and therefore no margin to introduce CIL charges. Only food supermarket and general retail demonstrated significant positive viability. These results are typical of our experience of most Local Authorities' commercial viability assessments. In order for viability assessment to be consistent between residential and commercial development, full development profit allowances are contained within all appraisals (assuming all development is delivered by third party developers requiring a full risk return). In reality much commercial development is delivered direct by business operators who do not require the 'development profit' element. As such many commercial categories of development are broadly viable and deliverable despite the apparent negativity of the results. In addition, it is common practice in mixed use schemes for the viable residential element of a development to be used to cross subsidise the delivery of the commercial component of a scheme.

6 Site Viability Appraisals

6.1 The study has undertaken specific Viability Appraisals of the residential sites proposed to be allocated by the Local Plan. In addition to the assumptions outlined above additional abnormal site constraint costs associated with the development of the individual sites have been applied to the individual site tests. Advice on cost allowances for these constraints was obtained from Gleeds and is summarised in the table below.

Abnormal Site Development Costs	Budget Cost £/Hectare
<p>Archaeology</p> <p>Typically, Archaeology is addressed by a recording/monitoring brief by a specialist, to satisfy planning conditions Intrusive archaeological investigations are exceptional and not allowed for in the Budget cost</p>	£10,000
<p>Flood Defence Works</p> <p>Generally involves raising floor levels above flood level, on relevant sites Budget £2,000 per unit x 35 units/Hect, apply to 1 in 3 sites</p>	£25,000
<p>Site Specific Access Works</p> <p>New road junction and S278 works, allowance for cycle path linking Major off-site highway works not allowed for.</p>	£20,000
<p>Land Contamination</p> <p>Heavily Contaminated land is not considered, as remediation costs will be reflected in the land sales values</p> <p>Allow for remediation/removal from site of isolated areas of spoil with elevated levels of contamination</p>	£25,000
<p>Ground Stability</p> <p>Former Mining area. Allow raft foundations to dwellings, on 75% of sites Budget £2000 per unit x 35 units x 25% of sites</p>	£20,000
<p>Utilities</p> <p>Allowance for Infrastructure Upgrade</p>	£80,000
<p>Site Specific Biodiversity Mitigation/Ecology</p> <p>Allow for LVIA and Ecology surveys and mitigation and enhancement allowance.</p>	£20,000

6 Site Viability Appraisals

6.2 Draft CIL charges are applied to the allocated site tests as well as the standard cost and value outlined in Section 4. The overall assumptions applied to the allocated site tests may be summarised as follows

ALLOCATED SITE APPRAISAL GENERAL ASSUMPTIONS

Affordable Housing						
Affordable Proportion%	35%					
Affordable Mix	15%	Intermediate	0%	Social Rent	85%	Affordable Rent
Transfer Value (% OMV)	70%	Intermediate		Social Rent	45%	Affordable Rent

NB – Not Applied to Student Housing

Professional Fees @			8.0%	Construction Cost		
Legal Fees			0.5%	GDV		
Statutory Fees			1.1%	Construction Cost		
Sales/Marketing Costs			2.0%	Market Units Value		
Contingencies			5.0%	Construction Cost		
Interest @	5.0%	12		Month Construction	6	Mth Sales Void
Arrangement Fee	1.0%	Cost				
Development Profit	Market Hsg	20.0%		of GDV	Afford Hsg	10% of GDV

CONSTRUCTION COSTS	Apt	2 Bed	3 Bed	4 Bed	5 Bed
Sqm	1210	1031	1031	1031	1031

Abnormal Costs							
Archlogy (Ha)	Flood (Ha)	Access (Ha)	Contam (Ha)	Sec 106 & Policy Costs(unit)	Ground Stability (Ha)	Utilities Upgrade (Ha)	Open Space
10000	25000	20000	25000	1000	20000	80000	10000

6 Site Viability Appraisals

ALLOCATED SITE APPRAISAL MIXED HOUSING ASSUMPTIONS

House Types	Apt	2 Bed	3 Bed	4 Bed	5 Bed
House Sizes (Sqm)	65	75	90	120	150

Density Assumptions	Apt	2 Bed	3 Bed	4 Bed	5 Bed
	100	40	35	25	20

Housing Mix	Apt	2 Bed	3 Bed	4 Bed	5 Bed
% Mix	10%	20%	35%	25%	10%

Affordable Housing Mix	Apt	2 Bed	3 Bed	4 Bed	5 Bed
% Mix	20%	70%	10%	0%	0%

ALLOCATED SITE APPRAISAL APARTMENT ASSUMPTIONS

House Types		2 Bed Apt
House Sizes (Sqm)		65

Density Assumptions		2 Bed Apt
		100

Housing Mix	1 Bed Apt	2 Bed Apt
% Mix	0%	100%

Affordable Housing Mix	Apt	2 Bed
% Mix	100%	0%

6 Site Viability Appraisals

COMMUNITY INFRASTRUCTURE LEVY

200

£ Per Sqm

Delivery Timescale

6.3 The delivery of housing and sites has been considered over a plan period of 15 years and broken down into 5 year delivery periods from 0-5 years, 6-10 years and 11-15 years. Larger sites have assumed phased delivery across all three periods.

6.5 Based on forecasts from industry research the following broad assumption adjustments have been applied to the values and costs in the study in the three appraisal periods. There will obviously be significant fluctuations over a 15 year plan period with higher residential value growth likely in the early part of the cycle but the figures are considered to represent reasonable estimates for the purpose of the Viability Appraisal.

Assumption Adjustments			
Residential Values Av Annual Increase	2015-2030	3%	
Construction Costs Av Annual increase	2015-2030	2%	
Delivery Period	0-5 Years	6-10 Years	11-15 Years
Value Adjustment	0%	27%	46%
Costs Adjustment	0%	17%	29%

6.6 No adjustment is applied to current costs and values in the 0-5 year period or the generic CIL appraisals as required by the NPPF and Harman guidance. A period of 8 years of compounded adjustments is applied to the 6-10 year period of the SHLAA appraisals and 13 years for the 11-15 year period. Adjustments are similarly applied to CIL Rates and Abnormal Site Constraint Costs in the SHLAA appraisals.

6.7 The site specific testing indicates whether individual development sites are considered viable on a 'traffic light' red, green, amber approach (having applied draft CIL rates as well as all of the policy cost impacts outlined in Section 4).

Green – Site considered broadly viable having made allowance for all reasonable development impacts, a standard developers profit and return to the landowner.

6 Site Viability Appraisals

Amber – Site considered capable of viable development making allowance for all reasonable development impacts, a standard developers profit but acknowledging that landowners may need to accept land value reductions for abnormal site development costs if development is to proceed.

Red – Site not currently considered viable based on implementation of Council policies and standard returns to landowners. It should be recognised that sites in this category may be viable if (a) the abnormal costs of bringing the site into a developable state (including some up front infrastructure investment) are deducted from the land value, (b) the Council is minded to relax affordable housing or infrastructure contributions or (c) landowner/developers accept some reduced profit return to stimulate the development.

6 Site Viability Appraisals

MIXED HOUSING 0-5 YEAR DELIVERY

Mixed Housing Viability Results			0-5 Year Delivery		
Ref	Site	Size	Units	Type	Viability
010	Sow & Grow Nursery, Ongar Road, Pilgrims Hatch	1.20	37	Brownfield	£345,291
022	Land at Honeyplot Lane, Brentwood	10.90	250	Greenfield	£7,892,433
032	Land east of Nags Head Lane, Brentwood	5.80	150	Greenfield	£5,317,436
034, 087 & 235	Officer's Meadow, Alexander Lane, Shenfield	23.49	600	Greenfield	£20,093,945
079A	Land adjacent to Ingatestone by-pass (part bounded by Roman Road)	1.39	42	Greenfield	£1,419,305

MIXED HOUSING – 6-10 YEAR DELIVERY

Mixed Housing Viability Results			6-10 Year Delivery		
Ref	Site	Size	Units	Type	Viability
001A & 001B	Land north of Highwood Close Including St Georges Court, Brentwood	1.28	52	Brownfield	£1,277,618
005	Essex County Fire Brigade HQ, Rayleigh Road	1.26	50	Brownfield	£1,355,669
020, 021 & 152	West Horndon Industrial Estates, Childerditch Lane and Station Road, West Horndon	17.06	500	Brownfield	£10,636,270
044 & 178	Land at Priests Lane, Brentwood	5.35	130	Brownfield	£2,900,246
081	Council Depot, The Drive	1.71	68	Brownfield	£1,843,827
098	Ingleton House, Stock Lane, Ingatestone	0.26	10	Brownfield	£303,109
128	Ingatestone Garden Centre, Roman Road, Ingatestone	3.25	60	Brownfield	£1,485,662
023	Land off Doddinghurst Road, either side of A12, Brentwood	7.20	250	Greenfield	£14,812,252

MIXED HOUSING – 11-15 YEAR DELIVERY

Mixed Housing Viability Results			11-15 Year Delivery		
Ref	Site	Size	Units	Type	Viability
200	Dunton Hills Garden Village	237.49	2500	Greenfield	£151,278,116

6 Site Viability Appraisals

APARTMENTS – 0-5 YEAR DELIVERY

Viability Results					0-5 Year Delivery
Ref	Site	Size	Units	Type	Viability
003	Wates Way Industrial Estate, Ongar Road, Brentwood	0.96	80	Brownfield	£2,488,696
041	Land at Hunter House, Western Road, Brentwood	0.22	16	Brownfield	£537,857
042	Land at Bell Mead, Ingatestone	0.22	16	Brownfield	£537,857
013B	Warley Training Centre, Essex Way, Warley	0.66	50	Brownfield	£1,592,639

APARTMENTS – 6-10 YEAR DELIVERY

Apartments Viability Results					6-10 Year Delivery
Ref	Site	Size	Units	Type	Viability
039	Westbury Road Car Park, Westbury Road, Brentwood	0.27	22	Brownfield	£1,227,950
040	Chatham Way, Crown Street Car Park, Brentwood	0.33	26	Brownfield	£1,461,595
099	Victoria Court, Victoria Road, Brentwood	0.50	40	Brownfield	£2,217,001

APARTMENTS – 11-15 YEAR DELIVERY

Apartments Viability Results					11-15 Year Delivery
Ref	Site	Size	Units	Type	Viability
100	Baytree Centre, Brentwood	1.34	200	Brownfield	£7,940,616

7 Conclusions

Residential Viability Assessment

7.1 The Brentwood Borough Local Plan sets out the strategy to deliver housing over the plan period. The Plan Wide Viability assessment illustrated that firstly, in general terms, housing development proposed in all locations in the Brentwood Borough Local Plan are economically viable and, secondly, can accommodate significant CIL charges whilst maintaining the Council's Affordable Housing aspirations. The assessment of residential land and property values indicated that the Authority did not possess significantly different residential sub-markets that warrant differential value assumptions being made in the Whole Plan Viability Assessment or a differential rate approach to CIL.

7.2 The viability results are summarised in the table below. The figures represent the margin of viability per sqm taking account of all development values and costs, plan policy impact costs and having made allowance for a competitive return to the landowner and developer. In essence a positive margin confirms whole plan viability and the level of positive margin represents the potential to introduce additional CIL charges.

Maximum Residential CIL Rates

	Mixed Residential Development	Town Centre Location	Edge of Village Housing	Large Family Housing	Small Housing Development
35% Affordable Housing					
Greenfield	£764	£533	£803	£824	£1,016
Brownfield	£367	£330	£405	£439	£709

7.3 The results of the viability testing clearly demonstrate that Affordable Housing delivery at the Council's policy target of 35% delivery proposed by the Plan is viable with a substantial margin for flexibility and potentially permitting significant CIL charges.

7.4 The testing showed that the Brentwood Borough Local Plan Policies are viable and all forms of housing development are capable of yielding significant levels of CIL. Greenfield housing development demonstrates viable CIL rate potential of £533-£1,016 per square metre dependent on the sub-market area. For brownfield housing, the CIL rate potential is lower at £330-709 per square metre. The results are slightly skewed by the 'small housing development' scenario test of 2 units where no affordable housing delivery is assumed.

7 Conclusions

Key Findings – Commercial Viability Assessment

7.6 The initial assessment of commercial land and property values indicate that there are no significant differences in values to justify differential sub-markets based on assumptions or differential CIL charging zones. The commercial category viability results are set out below but demonstrate that only food and non-food retail development categories are considered viable in terms of being able to viably accommodate CIL

 Maximum Commercial CIL Rates per sq m		
General Zone		
Charging Zone/Base Land Value	Greenfield	Brownfield
Industrial (B1b B1c B2 B8)	-£58	-£247
Office(B1a)	-£287	-£445
Hotel(C1)	-£957	-£1,113
Residential Institution (C2)	-£1,081	-£1,198
Community(D1)	-£1932	-£2069
Leisure (D2)	-£547	-£829
Agricultural	-£318	NA
Sui Generis	Car Sales -£603	Vehicle Repairs -£809
Food Supermarket Retail A1	£664	£383
General Retail A1-A5	£354	£217

7.7 It can be seen that only food supermarket retail, with CIL potential rate of £383-£664 per square metre, dependent on existing land use and general retail with potential rates of £217-£354 provide a margin to introduce CIL charges. It is therefore recommended on the existing evidence, that all non-retail categories should not be charged CIL based.

7.8 It should be stressed that whilst the generic appraisals showed that most forms of commercial and employment development are not viable based on the test assumptions, this does not mean that this type of development is not deliverable. For consistency a full developer's profit allowance was included in all the commercial appraisals. In reality many

7 Conclusions

employment developments are undertaken direct by the operators. If the development profit allowance is removed from the calculations, then much employment development would be viable and deliverable. In addition, it is common practice in mixed use schemes for the viable residential element of a development to be used to cross subsidise the delivery of the commercial component of a scheme.

SHLAA Sites

7.9 The viability testing of proposed residential sites in Brentwood Borough has been undertaken, accounting for the following policy impacts and key assumptions :-

- Greenfield or Brownfield Development
- Delivery Timescale
- Affordable Housing Delivery of 35%
- Key Planning Policy Cost Impacts
- Community Infrastructure Levy
- Residual Planning Obligation Allowances
- Site Specific Abnormal Costs and Mitigation Factors

7.10 The assessments confirm that Local Plan policies and the 35% Affordable Housing are deliverable on all sites across the plan period and that all residential sites can accommodate the draft CIL charges that are recommended without threatening economic viability.

CIL Appraisal Conclusions

7.11 The study demonstrates that most of the development proposed by the Local Plan is viable and deliverable taking account of the cost impacts of the policies proposed by the plan and the requirements for viability assessment set out in the NPPF. It is further considered that significant additional margin exists, beyond a reasonable return to the landowner and developer to accommodate CIL charges.

7.12 Taking account of the viability results, the generic nature of the tests, a reasonable buffer to allow for additional site specific abnormal costs, in the event Brentwood Borough Council wish to pursue CIL, we would recommend the following zonal rates. Brentwood Borough envisage a mixed development delivery strategy on brownfield and greenfield sites and so the rates are set within the lower brownfield viability margins with a reasonable viability buffer in excess of the generally accepted margin of 30%.

Residential CIL	
Housing	£200sqm

7 Conclusions

7.13 It is similarly recommended that a single zone approach is taken to setting commercial CIL rates. The viability assessment results indicate that all non-retail commercial uses should be zero rated.

7.14 The retail viability assessment results indicate that differential rates could be legitimately applied to both types of retail use and, in the case of food supermarket development also to scale of development. Based on the viability assessment results and taking account of a reasonable viability buffer and the issues set out in paragraph 1.17, the following Commercial CIL rates are recommended.

Non-Residential CIL	
Boroughwide	
All Non-residential uses (excepting Retail)	£0sqm
Boroughwide	
General Retail A1-A5 (excluding Food Supermarket)	£125sqm
Food Supermarket A1	£200sqm

7.15 The study is a strategic assessment of whole plan viability and as such is not intended to represent a detailed viability assessment of every individual site. The study applies the general assumptions in terms of affordable housing, planning policy costs impacts and identified site mitigation factors based on generic allowances. It is anticipated that more detailed mitigation cost and viability information may be required at planning application stage to determine the appropriate level of affordable housing and planning obligation contributions where viability issues are raised. The purpose of the study is to determine whether the development strategy proposed by the Plan is deliverable given the policy cost impacts of the Plan.

7.16 The study illustrates that all greenfield and brownfield sites in the initial 0-5 year delivery period (i.e. the 5 year land supply) are viable based on the adopted assumptions. Viability improves in both the medium term (6-10 years) and longer term (11-15 years) with all sites demonstrating positive viability.

7.17 In conclusion, the assessment of all proposed residential sites in Brentwood Borough has been undertaken with due regard to the requirements of the NPPF and the best practice advice contained in 'Viability Testing Local Plans'. It is considered that all sites are viable across the entire plan period taking account of the Affordable/Low Cost Housing requirements and all policy impacts of the Local Plan as well as the introduction of CIL in the future.

**Heb Surveyors
Valuation Report
May 2016**

**Gleeds
Construction Cost Study
March 2016**