Brentwood Borough Council
CIL Viability Assessment

November 2013

NCS

Nationwide CIL Service

Contents

1.1 The report will provide an appraisal of the viability of the Brentwood Borough Local Plan in terms of the impact of its policies on the economic viability of development proposed to be delivered by the Plan and the potential for development to yield CIL.. The study will consider policies that might affect the cost and value of development (Affordable Housing and Community Infrastructure Levy, Design and Construction Standards).

Study Area

1.2 The study area covers the whole of the administrative area of Brentwood Borough Council. The assessment first considers the existence of economic sub-market areas for residential and commercial development within the study area which may also form the basis for the Authority's CIL Charging Zones in the event that Brentwood pursues the adoption of CIL.

Methodology

1.3 The study seeks to assess the viability of residential development and commercial sites taking account of all relevant factors.

1.4 The study involves an assessment of market values for residential and commercial development in Brentwood based on valuation advice from Heb Surveyors. The study uses the base construction costs and rates based on advice from Gleeds cost consultants.

1.5 The Study firstly tests mixed residential and commercial development scenarios considered relevant and likely to emerge in the study area to assess the potential to adopt a Community Infrastructure Levy.

1.6 The viability appraisal considers two principal land value benchmarks from which development is likely to emerge – Greenfield and Brownfield.

1.7 The residential valuation assessment study factors in the Authority's affordable housing targets. Affordable Housing is exempt from CIL charges and this is also factored into the appraisal.

1.8 The CIL viability assessment produces maximum rates of CIL that can be applied whilst maintaining the economic viability of development

CIL Viability Appraisals

1.9 The viability study firstly concluded that the variations in the values of residential development were not significant enough to warrant differential assumptions being applied to different geographical locations in the study area and that a single value zone approach was appropriate to the viability testing and any CIL system that might emerge.

	Mixed Residential Development	Town Centre Location	Edge of Village Housing	Large Family Housing	Small Housing Development
35% Affordable Housing					
Greenfield	£455	£543	£462	£449	£478
Brownfield	£143	£345	£138	£140	£161

1.10 Based on Brentwood Borough Council's proposed affordable Housing target of 35% the study illustrated that all forms of residential development are viable and capable of yielding significant levels of CIL. Potential CIL rates for greenfield development ranged from £449-£543 sqm. Brownfield rates varied from £128-£345sqm. Apartment development was considered the most viable form of housing in both greenfield and brownfield scenarios.

1.11 The valuation study concluded that any variations in the value of commercial locations in Brentwood are not significant enough to warrant a differential charging zone approach to commercial CIL rates. The viability appraisals also illustrated that most categories of developer led commercial development are not viable based on current market circumstances in Brentwood. The viability results do not mean that commercial and employment development cannot be delivered in Brentwood. Many forms of commercial development may be undertaken direct by occupiers and where the development return can be reduced from a developers profit to a margin that reflects occupiers operational or opportunity costs then development could then be viable.

1.12 Food supermarket retail and general retail were assessed to be viable and capable of accommodating CIL in both greenfield and brownfield development scenarios. Food supermarket retail indicated potential rates of £396-£648 per sqm and general retail of £101-223 per sqm for general greenfield and brownfield scenarios.

1.13 It is important that the Development Strategy of the Authority is considered in setting CIL rates based on an economic viability assessment. The Local Plan envisages that a substantial proportion of new development over the plan period will emerge from brownfield sites. It is estimated that approximately 40% of residential development will be on previously developed sites. As such it is considered appropriate that the brownfield results act as the primary guide to rate setting.

1.14 The results illustrate maximum potential CIL rates which could be applied without threatening the economic viability of development. The appraisals are necessarily generic tests which do not make allowance for site specific abnormal costs. As such we would recommend that CIL rates are set within the identified viability margins to take account of these unknown factors, setting the appropriate balance within the context of Brentwood.

1.15 It is recommended that there are insufficient variations in residential value to justify a differential zone approach to setting residential CIL rates. Based on an Affordable Housing target of (with a tenure mix of 15% Intermediate and 85% Affordable Rent), and taking account of the substantial level of brownfield delivery, the generic nature of the tests, a reasonable buffer to allow for additional site specific abnormal costs we would recommend the following residential CIL rates:-

Affordable Housing Target	
Boroughwide	35%
Residential CIL	
Boroughwide	£130sqm

1.16 It is similarly recommended that a single zone approach is taken to setting commercial CIL rates. Food supermarket and general retail viability is significantly different but in view of the difficulties in separately defining supermarkets for the purpose of charging CIL it is recommended a single rate is adopted to take account of the viability of categories.

Retail A1-A5	£80
All Other Non Residential Uses	£0sqm

1.17 In order to estimate residential CIL over the plan period, the recommended CIL rate is applied to an average dwelling size of 90 sq metres for eligible dwellings. In Brentwood it is estimated that approximately 3500 dwellings could be potentially be liable for CIL over the plan period. Assuming 35% of these are exempt as affordable Housing, the projected CIL liable floorspace is 2275 x 90sqm = 204750sqm

1.18 The Local Plan makes provision for up to 7275sqm of comparison retail floorspace and 4277sqm of convenience retail floorspace. It is uncertain at this stage how much development might be exempt from CIL due to re-use of existing buildings or lawful use demolition allowances. As such a full allowance has been made for potentially chargeable floorspace.

CIL Revenue Projections				
Charging Zone	**Category**	**CIL Rate**	**Eligible Floorspace**	**CIL Revenue**
Boroughwide	**Residential**	**£130**	**204750**	**£26,617,500**
Boroughwide	**Retail**	**£80**	**11552**	**£924,160**
			Total	**£27,541,660**

2 Introduction

2.1 The purpose of the study is to assess the overall viability of development in Brentwood by assessing the specific viability of site typologies reflecting the type of development likely to emerge over the plan period.

2.2 In order to provide a robust assessment, the study first uses generic development typologies to consider the cost and value impacts of Local Plan policies and determine whether any additional viability margin exists to accommodate a Community Infrastructure Levy.

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 -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."

2.4 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

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

1) Evidence Base – Land & Property Valuation Study

3.2 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 2013.

2) Evidence Base – Construction Cost Study

3.3 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 2013. 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

3.4 The Heb Valuation Evidence considered the existence of potential sub-markets within the study area which might form differential Charging Zones adopted as part of the Community Infrastructure Levy and which warrant the application of varied assumptions to the individual site viability assessments.

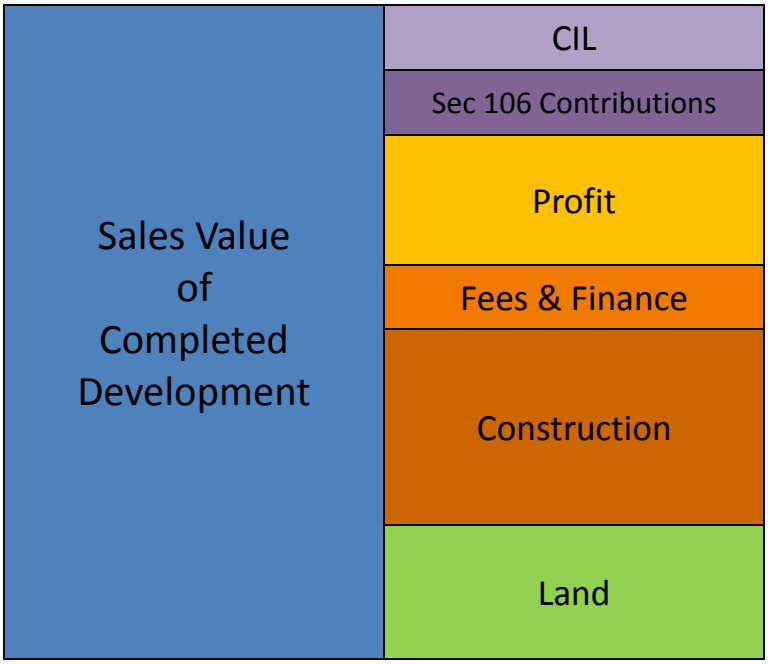
4) Viability Appraisal

3.5 Appraisal of every category of development in the identified charging zones using a Residual Appraisal Model to determine the margin available for CIL contributions.

5) Maximum CIL Rates

3.6 Tabulation of the Viability Appraisal results to illustrate the maximum rates of CIL that may be levied without threatening the economic viability of development

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 ie 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.

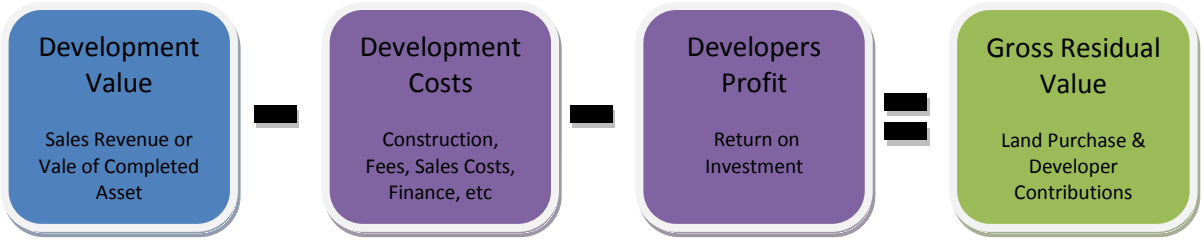
3.8 On the other side of the equation, the development cost includes the 'fixed elements' ie construction, fees, finance and developers profit. Developers profit is usually fixed as a minimum % return on gross development value generally set by the lending institution at the time. The flexible elements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

3.9 We assess economic viability using an industry standard Residual Model approach. The model firstly calculates development value and then subtracts the Land Value and the Fixed Development Costs to determine the margin available for Policy Based Contributions (S106, CIL etc). Importantly the methodology attempts to establish a realistic land value – one that reflects the reasonable contributions expectations of Authorities but which also provides sufficient return to persuade landowners to release sites (see Land Value Assumptions).

Land Value Assumptions

3.10 It is generally accepted that planning policy based developer contributions, will be extracted from the residual land value (ie the margin between development value and development cost including a reasonable allowance for developers profit). For the purpose of Local Plan Viability Assessment a benchmark or Threshold Land Value must be established to ascertain the remaining margin for CIL contributions.

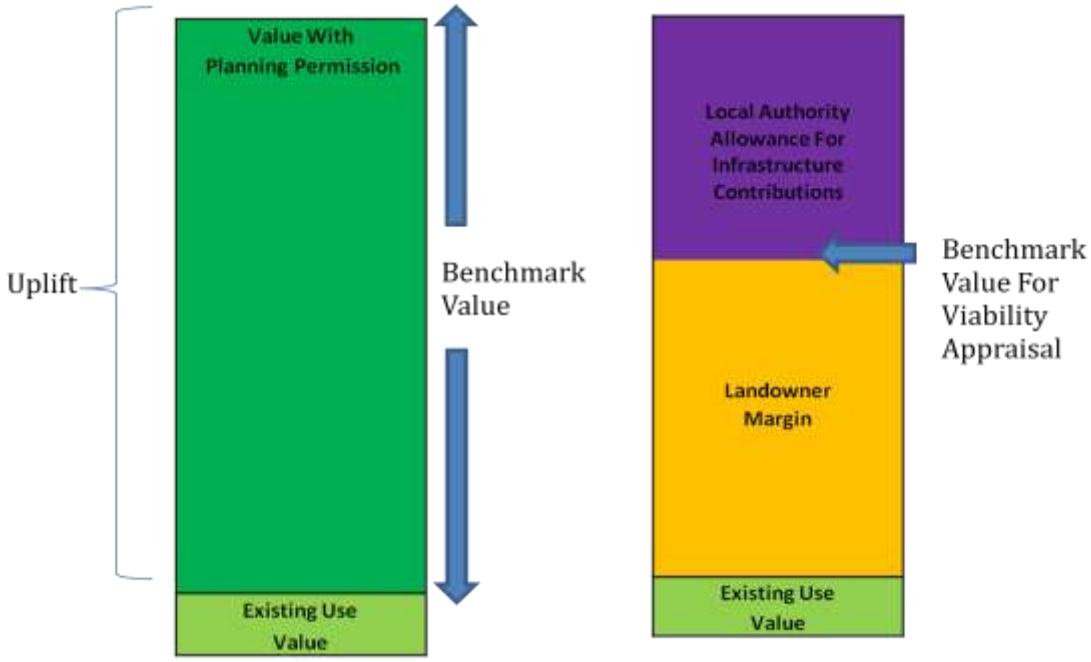
Stage 1 – Residual Valuation



3.11 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 for CIL but the NPPF and emerging best practice guidance does provide a clear steer on the appropriate approach as discussed in the previous section.

Stage 2 – Establishing Threshold Land Value

Land Value Benchmarking (Threshold Land Values)



3.11 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 (eg 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)

3.12 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.

3.13 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.

3.14 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

3.15 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

3.16 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 (EUV) or alternative use value (AUV) to support a land acquisition price acceptable to the landowner*".

3.17 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"

3.18 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 Local Housing Delivery Group guidance '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".

NCS Approach to Land Value Benchmarking (Threshold Land Values)

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

3.20 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.

3.21 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, 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 Wokingham Appeal Decision (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

3.22 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.

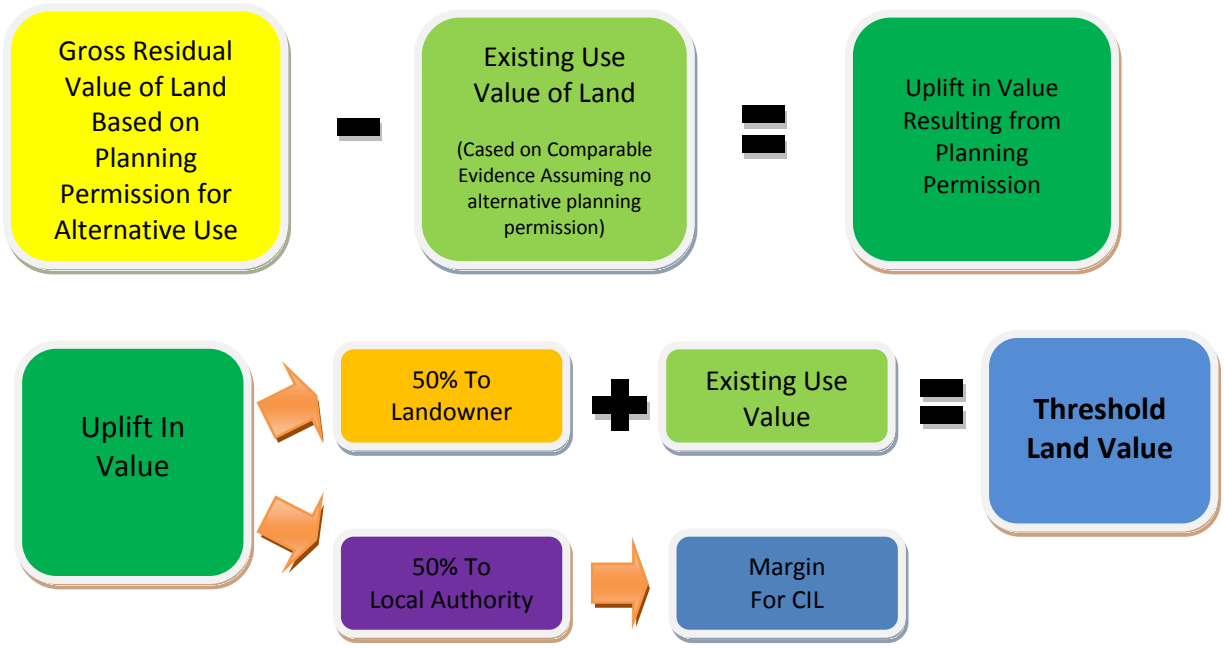
Worked Example Illustrating % over Existing Use vs % Share of Uplift

3.23 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



Brownfield and Greenfield Land Value Benchmarks

3.24 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 developer contributions as it represents the highest uplift in value resulting from planning permission. The greenfield existing use is based on agricultural value.

3.25 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, CIL, 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 (eg retail) to a low value use (eg industrial) is unlikely.

3.26 In CIL appraisal work, as a sense check, the viability appraisals are also undertaken based on market comparable evidence of actual land transactions in the relevant use category. Actual market evidence will not always be available for all categories of development, the valuation team make reasoned assumptions. It is not recommended that these results are used as the basis for setting CIL rates or Affordable Housing targets since the market transaction land values may not necessarily reflect proper allowance for planning policy impacts – particularly where a policy that has a direct 'land taxation' impact (like CIL) has not previously been in existence.

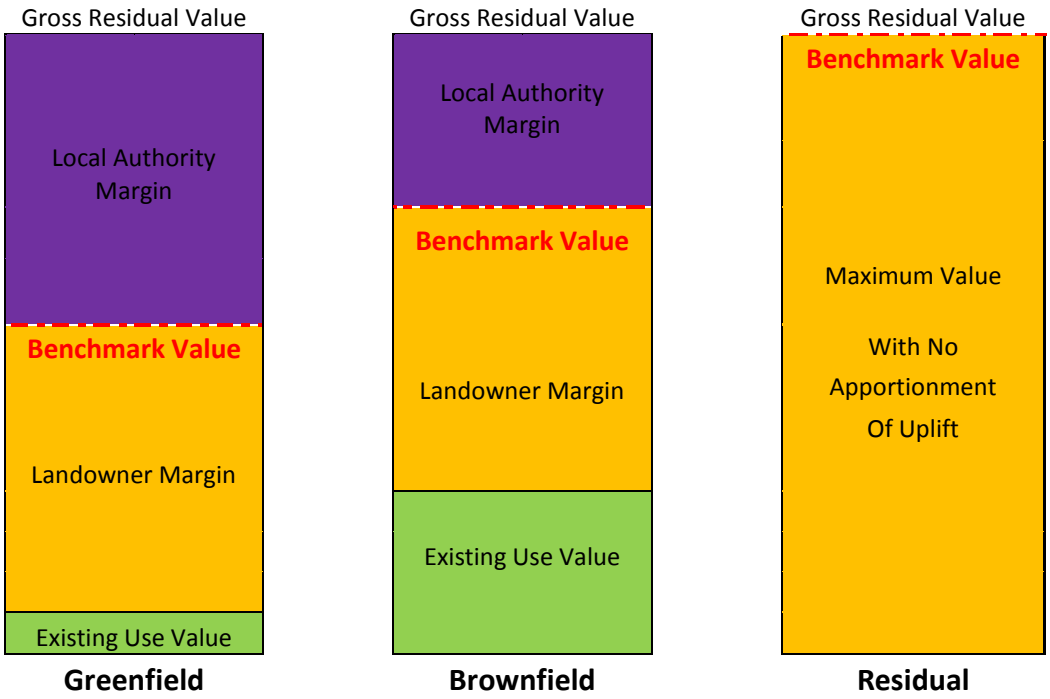
Residential

Benchmark 1	Greenfield	Agricultural – Residential
Benchmark 2	Brownfield	Industrial – Residential
Benchmark 3	Market Comparable	Based on transactional evidence where available (CIL Appraisal only)

Commercial

Benchmark 1	Greenfield	Agricultural – Proposed Use (Maximum CIL Potential)
Benchmark 2	Brownfield	Industrial – Proposed Use
Benchmark 3	Market Comparable	Based on transactional evidence where available (CIL Appraisal only)

3.27 The viability study normally assumes that affordable housing land has no value because development costs generally exceed affordable housing sales value. In very high value areas adjustments are made to this assumption to reflect affordable housing land value as appropriate.



3.28 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 purple 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.

3.29 Whilst brownfield land evaluation with a higher benchmark land value will necessarily indicate that less margin exists for policy cost impacts.

3.30 The 'Market Comparable' land values will normally represent the highest land value assumptions of the three assessed benchmarks as they cannot make allowance for the introduction of the new policy that is being assessed and which will have subsequent impact on value, once adopted.

Residual Valuation & Development Appraisal

3.31 NCS do not rely solely on residual value appraisal to assess viability. Alternative methodologies rely on subtracting development costs and profit from development value and inputting assumed developer contributions and policy impact costs to give a residual value for land. This residual value is then compared to a benchmark value. If it is equal to or higher to the benchmark the development is deemed to be viable.

3.32 The problem with the residual value approach is that it doesn't factor in the finance cost of land – which will be the element of development cost that is incurred up front and carry finance costs through the entire development process. The omission of this finance cost could potentially give a false picture of development viability.

3.33 NCS therefore adopt a development appraisal approach rather than a residual land value approach. NCS has developed a bespoke model specifically to assess the economic viability of development. This model factors in land value (threshold land value as discussed in the previous section) as a key element of development cost. In this way the finance charges for of all elements of development cost are properly assessed including land.

Residual Valuation & Development Appraisal

3.34 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 2000sqm Unit x £1,100per 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	£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)	£25 sqm

Property Sales Values

3.28 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 appropriate available evidence to give an accurate representation of the market circumstances on which Development Plan policy will be based. Sales value evidence is based on the Valuation survey undertaken by Heb Surveyors in 2013.

Sales Values

Sub Market Area/CIL Charging Zone	Sales Value £sqm				
	Apartment	2 Bed	3 Bed	4 Bed	5 Bed
Boroughwide	3500	3400	3400	3300	3300

Sub Market Areas

4.1 The Heb valuation study concluded that variations in land and property values were not significant enough to justify delineation of sub-markets and application of differential value assumptions.

Affordable Housing

4.2 The residential viability tests factor in affordable housing in accordance with the Council's relevant policy on proportion and mix. The following extract from a residential viability appraisal model illustrates how affordable housing is factored into the residential valuation assessment. The relevant variables (eg unit numbers, types, sizes, affordable proportion, tenure mix etc) are inputted into the highlighted 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**

4.3 Affordable Housing delivery from 10-35% was tested against the potential to yield CIL. The following Affordable Housing assumptions were employed in the viability testing relating to 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.

Affordable Housing				
	Proportion %	Tenure Mix %		
		Intermediate	Social Rent	Affordable Rent
Boroughwide	10-35%	15%		85%
Transfer Values		60%		45%

4.4 The Council's target policy of 35% Affordable Housing delivery was used to consider draft CIL rates.

Development Density

4.5 Density is an important factor in determining gross development value and land value. 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.

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

Apartment	120 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

4.7 The study uses the following standard house types as the basis for valuation and viability testing as unit types that are generally reflective of market circumstances in Brentwood .

2 Bed Apartment	65 sqm
2 Bed House	75 sqm
3 Bed House	88 sqm
4 Bed House	120 sqm
5 Bed House	150 sqm

4.8 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.

Residential Development Scenarios For CIL Testing

4.9 The CIL appraisal considered 5 generic housing mixes to generate potential CIL rates as follows :-

1.	Mixed Residential	Apts, 2, 3, 4, 5 Bed Houses	80 Units
2.	Town Centre Apartments	Apartments	200 Units
3.	Edge of Village Housing	3, 4 Bed Houses	9 Units
4.	Large Family Housing	4, 5 Bed Houses	4 Units
5.	Small Housing Development	2 Bed Houses	2 Units

Commercial Development Scenarios

4.10 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.

4.11 The density assumptions for commercial development will be specific to the development category. For instance the extent of the building footprint 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 building footprint may be only 25% of the site area. Food retailing generally has high car parking requirements and large site areas compared to building footprints.

4.12 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 (eg 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.

4.13 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.

Commercial Development Sample Typology
Unit Size & Land Plot Ratio

		Unit Size Sqm	Plot Ratio %	Gross:Net	Sample
Industrial	B1b B1c B2 B8	1000	200%	1.0	Factory Unit
Office	B1a	2000	200%	1.2	Office Building
Food Retail	A1	3000	300%	1.0	Supermarket
General Retail	A 1 A2 A3	300	150%	1.0	Roadside Retail 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

Construction Costs

4.14 The base construction cost reflects Code level for Sustainable Homes Code 3. 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.

Abnormal Construction Costs

4.15 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. Viability assessment is a generic test and it would be unrealistic to make assumptions over average abnormal costs to cover such a wide range of scenarios. 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.

Planning Policy Cost Impacts

4.16 The study has considered the impacts of policies proposed in the Plan on the economic viability of development. Brentwood does not consider that there are any proposed policies (that are not already factored into the study) that would add specific additional development costs that would have a direct impact on the viability of development.

Planning Obligation Contributions

4.17 CIL is likely to replace some if not all planning obligation contributions. Nevertheless it is anticipated that planning obligations will continue to be used to fund site specific mitigation and infrastructure, particularly in connection with residential development. An allowance of £2000 per dwelling has been adopted in the viability appraisal to reflect the impact of the future use of planning obligation contributions. Further consideration to planning obligation contributions may be considered at Application stage subject to individual site viability considerations.

Developers Profit

4.18 Developers 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 minimum lending conditions of the financial institutions. A 20% return on GDV is used in the residential CIL viability appraisals to reflect speculative risk. A reduced level of 17.5% return is used in the commercial appraisals to reflect the likelihood that commercial development will be pre-let or pre-sold with a reduced level of risk.

5 CIL Viability Appraisal Results

Maximum Residential CIL Rates per sqm					
Aff Hsg Target/Base Land Value	Mixed Residential Development	Town Centre Location	Edge of Village Housing	Large Family Housing	Small Housing Development
10% Affordable Housing					
Greenfield	£532	£673	£523	£503	£582
Brownfield	£250	£518	£236	£217	£289
Market Comparable	-£8	£377	-£40	-£57	£29
20% Affordable Housing					
Greenfield	£509	£631	£503	£488	£548
Brownfield	£215	£462	£204	£192	£255
Market Comparable	-£51	£307	-£66	-£88	-£27
25% Affordable Housing					
Greenfield	£493	£605	£489	£477	£528
Brownfield	£194	£428	£185	£177	£228
Market Comparable	-£76	£266	-£89	-£93	-£60
30% Affordable Housing					
Greenfield	£475	£577	£472	£464	£505
Brownfield	£170	£389	£163	£160	£197
Market Comparable	-£106	£218	-£116	-£114	-£98
35% Affordable Housing					
Greenfield	£455	£543	£462	£449	£478
Brownfield	£143	£345	£138	£140	£161
Market Comparable	-£140	£164	-£147	-£139	-£128

5.1 The results of the Residential CIL Viability Testing are set out in the above table. The residential results are illustrated for the 5 different Affordable Housing tests (10-35% Delivery) for the five residential development scenarios.

5.2 The residential tables illustrate the maximum potential CIL rates in £ per sqm that could be applied for each rate of affordable housing delivery, without threatening the overall viability of that development. Negative rates illustrate that the relevant combination of CIL and affordable Housing is not currently viable.

5.3 Each category of development produces a greenfield and brownfield result reflecting 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. The Market Comparable rate should be regarded as a sensitivity test only as it is based on non benchmarked land values which reflect historic land transactions that could not factor in, and therefore make appropriate allowance for, CIL. The greenfield and brownfield results should guide the actual rates of CIL adopted, dependent on the prevailing development strategy of the Development Plan.

Maximum Commercial CIL Rates per sqm

Charging Zone/Base Land Value	Industrial (B1b B1c B2 B8)	Office (B1a)	Food Supermarket (A1)	General Retail (A1-A5)	Hotel (C1)
General Zone					
Greenfield	-£99	-£366	£648	£223	-£975
Brownfield	-£268	-£508	£396	£101	-£1,114
Market Comparable	-£380	-£555	£270	£111	-£1,161

Charging Zone/Base Land Value	Residential Institution (C2)	Community (D1)	Leisure (D2)	Agricultural (A1-A5)	Sui Generis
General Zone					
Greenfield	-£1,092	-1950	-559	-363	Car Sales -£702
Brownfield	-£1,197	-2072	-810	na	Car Repairs – -880
Market Comparable	-£1,232	-2113	-895	na	

5.4 The results of the Commercial CIL Viability Testing are set out in the above table. The commercial results are illustrated for all the categories of development tested and represent the maximum rates that could be applied without threatening the economic viability of development.

CIL Study Conclusions - Residential

6.1 The viability study firstly concluded that the variations in the values of residential development were not significant enough to warrant differential assumptions being applied to different geographical locations in the study area and that a single value zone approach was appropriate to the viability testing and any CIL system that might emerge.

	Mixed Residential Development	Town Centre Location	Edge of Village Housing	Large Family Housing	Small Housing Development
35% Affordable Housing					
Greenfield	£455	£543	£462	£449	£478
Brownfield	£143	£345	£138	£140	£161

6.2 Based on Brentwood Borough Council's proposed affordable Housing target of 35% the study illustrated that all forms of residential development are viable and capable of yielding significant levels of CIL. Potential CIL rates for greenfield development ranged from £449-£543 sqm. Brownfield rates varied from £138-£345sqm. Apartment development was considered the most viable form of housing in both Greenfield and brownfield scenarios.

6.3 It is clear that the economic viability of brownfield development on previously developed sites in the urban area is very different to that of greenfield development. It is important that CIL does not threaten either the economic viability of development or the delivery of the development strategy. It is envisaged that the majority of new development will emerge from brownfield sites over the plan period. It is therefore recommended that the brownfield CIL results guide rate setting in the Borough, balanced with the appropriate Affordable Housing targets.

CIL Study Conclusions - Commercial

6.4 The valuation study concluded that any variations in the value of commercial locations in Brentwood are not significant enough to warrant a differential charging zone approach to commercial CIL rates. The viability appraisals also illustrated that most categories of developer led commercial development are not viable based on current market circumstances in Brentwood. The viability results do not mean that commercial and employment development cannot be delivered in Brentwood. Many forms of commercial development may be undertaken direct by occupiers and where the development return can be reduced from a developers profit to a margin that reflects occupiers operational or opportunity costs then development could then be viable.

6.5 Food supermarket retail and general retail were assessed to be viable and capable of accommodating CIL in both greenfield and brownfield development scenarios. Food supermarket retail indicated potential rates of £396-£648 per sqm and general retail of £101-223 per sqm for general greenfield and brownfield scenarios. We would recommend some caution in respect of food retail rates. Whilst the study has made a reasoned assessment of land values, transactional evidence is low due to lack of activity in the sector. As specific food retail projects emerge it is likely that landowners will expect significant premiums in order to release sites, which may reduce viability levels significantly and this should be taken into consideration in rate setting.

CIL Rate Recommendations

6.6 It is important that the Development Strategy of the Authority is considered in setting CIL rates based on an economic viability assessment. The Local Plan envisages that a substantial proportion of new development over the plan period will emerge from brownfield sites. It is estimated that approximately 40% of residential development will be on previously developed sites. As such it is considered appropriate that the brownfield results act as the primary guide to rate setting.

6.7 The results illustrate maximum potential CIL rates which could be applied without threatening the economic viability of development. The appraisals are necessarily generic tests which do not make allowance for site specific abnormal costs. As such we would recommend that CIL rates are set within the identified viability margins to take account of these unknown factors, setting the appropriate balance within the context of Brentwood.

6.8 It is recommended that there are insufficient variations in residential value to justify a differential zone approach to setting residential CIL rates. Based on an Affordable Housing target of (with a tenure mix of 15% Intermediate and 85% Affordable Rent), and taking account of the substantial level of brownfield delivery, the generic nature of the tests, a reasonable buffer to allow for additional site specific abnormal costs we would recommend the following residential CIL rates:-

Affordable Housing Target	
Boroughwide	35%
Residential CIL	
Boroughwide	£130sqm

6.9 It is similarly recommended that a single zone approach is taken to setting commercial CIL rates. Food supermarket and general retail viability is significantly different but in view of the difficulties in separately defining supermarkets for the purpose of charging CIL it is recommended a single rate is adopted to take account of the viability of categories. Taking account of the factors expressed in para 6.5 a retail CIL rate of £80 per sqm is recommended.

Retail A1-A5	£80
All Other Non Residential Uses	£0sqm

CIL Revenue Potential

6.10 In order to estimate residential CIL over the plan period, the recommended CIL rate is applied to an average dwelling size of 90 sq metres for eligible dwellings. In Brentwood it is estimated that approximately 3500 dwellings could be potentially be liable for CIL over the plan period. Assuming 35% of these are exempt as affordable Housing, the projected CIL liable floorspace is 2275 x 90sqm = 204750sqm

6.11 The Local Plan makes provision for up to 7275sqm of comparison retail floorspace and 4277sqm of convenience retail floorspace. It is uncertain at this stage how much development might be exempt from CIL due to re-use of existing buildings or lawful use demolition allowances. As such a full allowance has been made for potentially chargeable floorspace.

Charging Zone	Category	CIL Rate	Eligible Floorspace	CIL Revenue
Boroughwide	**Residential**	**£130**	**204750**	**£26,617,500**
Boroughwide	**Retail**	**£80**	**11552**	**£924,160**
			Total	**£27,541,660**

Valuation Report

Construction Cost Study