



Havering

L O N D O N B O R O U G H

CABINET MEETING
19th JULY 2017

HAVERING LOCAL PLAN
VIABILITY ASSESSMENT 2017



**BNP PARIBAS
REAL ESTATE**

Real Estate
for a changing
world

Havering Local Plan - Viability Assessment

Prepared for
London Borough of Havering

June 2017



Contents

1	Summary	3
2	Introduction	5
3	Methodology and appraisal inputs	12
4	Appraisal assumptions	16
5	Appraisal outputs	22
6	Assessment of the results	23
7	Conclusions and recommendations	45

Appendices

Appendix 1 - Policy analysis
Appendix 2 - Sites details
Appendix 3 - Sample appraisal

Anthony Lee MRTPI MRICS
Senior Director – Development Consulting
BNP Paribas Real Estate
5 Aldermanbury Square
London EC2V 7BP

020 7338 4061
anthony.lee@bnpparibas.com
realestate.bnpparibas.com

1 Summary

- 1.1 This report tests the ability of a range of developments identified in London Borough of Havering's Draft Local Plan to be viably developed over the plan period. The study takes account of the cumulative impact of the Council's current planning requirements, in line with the requirements of the National Planning Policy Framework ('NPPF') and the Local Housing Delivery Group guidance '*Viability Testing Local Plans: Advice for planning practitioners*'. As part of the exercise, we have tested the ability of developments to absorb higher amounts of Community Infrastructure Levy ('CIL') than the £50 to £70 per square metre rates contained in the Council's Preliminary Draft Charging Schedule ('PDCS').

Methodology

- 1.2 The study methodology compares the residual land values of a range of development typologies reflecting the types of developments expected to come forward in the borough over the plan period. The appraisals compare the residual land values generated by those developments (with varying levels of affordable housing and CIL contributions) to a benchmark land value to reflect the existing value of land prior to redevelopment. If a development incorporating the Council's policy requirements generates a higher residual land value than the benchmark land value, then it can be judged that the site is viable and deliverable. Following the adoption of policies, developers will need to reflect policy requirements in their bids for sites, in line with requirements set out in the RICS Guidance on '*Financial Viability in Planning*'¹.
- 1.3 The study utilises the residual land value method of calculating the value of each development. This method is used by developers when determining how much to bid for land and involves calculating the value of the completed scheme and deducting development costs (construction, fees, finance, sustainability requirements and CIL) and developer's profit. The residual amount is the sum left after these costs have been deducted from the value of the development, and guides a developer in determining an appropriate offer price for the site.
- 1.4 The housing and commercial property markets are inherently cyclical and the Council is the viability of potential development sites at a time when the market has recovered after a severe recession. Forecasts for future house price growth point to continuing growth in mainstream London housing markets, although there is a degree of uncertainty associated with the outcome of the referendum on the UK's membership of the European Union. We have allowed for this medium term growth over the plan period by running a sensitivity analysis which varies the base sales values and build costs, with values increasing by 5% per annum and costs by 3% per annum.
- 1.5 This analysis is indicative only, but is intended to assist the Council in understanding the viability of potential development sites on a high level basis, both in today's terms but also in the future. Some sites may require more detailed viability analysis when they come forward through the development management process due to specific site circumstances that cannot be reflected in an area wide assessment².

¹ This guidance notes that when considering site-specific viability "*Site Value should equate to the market value subject to the following assumption: that the value has regard to development plan policies and all other material planning considerations and disregards that which is contrary to the development plan*". Providing therefore that Site Value does not fall below a site's existing use value, there should be no reason why policy requirements cannot be achieved.

² The Local Housing Delivery Group Guidance '*Viability Testing Local Plans: Advice for Planning Practitioners*' notes that "*the role of the test is not to provide a precise answer as to the viability of every development likely to take place during the plan period. No assessment could realistically provide this level of detail. Some site-specific tests are still likely to be required at the development management stage*".

Key findings

1.6 The key findings of the study are as follows:

- The results of this study are reflective of current market conditions, which will inevitably change over the medium term. It is therefore important that the Council keeps the viability situation under review so that policy requirements can be adjusted should conditions change markedly. We have tested the development typologies to consider the impact of growth in values and inflation on costs over the plan period. The results of this sensitivity analysis show a significant improvement in the number of development scenarios which become viable incorporating the Council's policy requirements.
- Some schemes tested were unviable due to market factors, rather than the impact of the Council's policy requirements. These schemes will not come forward until changes in site specific market conditions and their current unviable status should not be taken as an indication that the Council's requirements cannot be accommodated on other schemes.
- In most cases, schemes can accommodate the Council's affordable housing requirement at a level somewhere between 25% to 50%. The type of development is a critical factor; our appraisals indicate that lower density developments providing a mix of houses and flats, are likely to be viable across the borough, including in the lowest value areas. This is because building costs associated with this form of development are lower in comparison to high density flatted schemes. Our appraisals indicate that high density flatted developments are only likely to be viable and able to provide affordable housing at a level of between 25% and 35% in the highest value locations in the borough.
- The Council's flexible approach to application of its affordable housing targets will ensure the viability of developments is not adversely affected over the economic cycle.
- The emerging Local Plan requirement for larger town centre schemes to make a contribution towards provision of employment floorspace requires a subsidy from the private element of developments (the relatively low office rents in the area result in low capital values which are insufficient to cover the development costs). This will result in two policy requirements requiring cross subsidy (affordable housing provision and workspace) as well as CIL and any residual Section 106 requirements. The Council may need to apply the workspace policy flexibly and balance this requirement with the need for developments to deliver affordable housing.
- As an additional requirement, the Local Plan seeks that 20% of newly developed workspace is provided as affordable, which in our appraisals we have tested at a 20% discount to market rent in perpetuity. This requirement has only a modest impact on the residual land values generated by our development typologies in comparison to the appraisals with 100% of workspace let at market rents.
- The Council's PDCS indicates Council's intention to adopt CIL rates of between £50 and £70 per square metre for residential development. These rates are not dissimilar from those adopted by neighbouring boroughs. However, our appraisals adopting higher rates of CIL (+£20 and +£40 per square metre on both rates) show only marginal movements in residual land values which equate to 1.7% and 3.4% of the base residual land value. Consequently, there may be some scope for the Council to consider upwards adjustments to their CIL rates, but this should be explored further with the Council's CIL advisors.
- The Council needs to strike a balance between achieving its aim of meeting needs for affordable housing with raising funds for infrastructure, and ensuring that developments generate acceptable returns to willing landowners and willing developers. This study demonstrates that the Council's flexible approach to applying its affordable housing requirements ensures that these objectives are balanced appropriately.

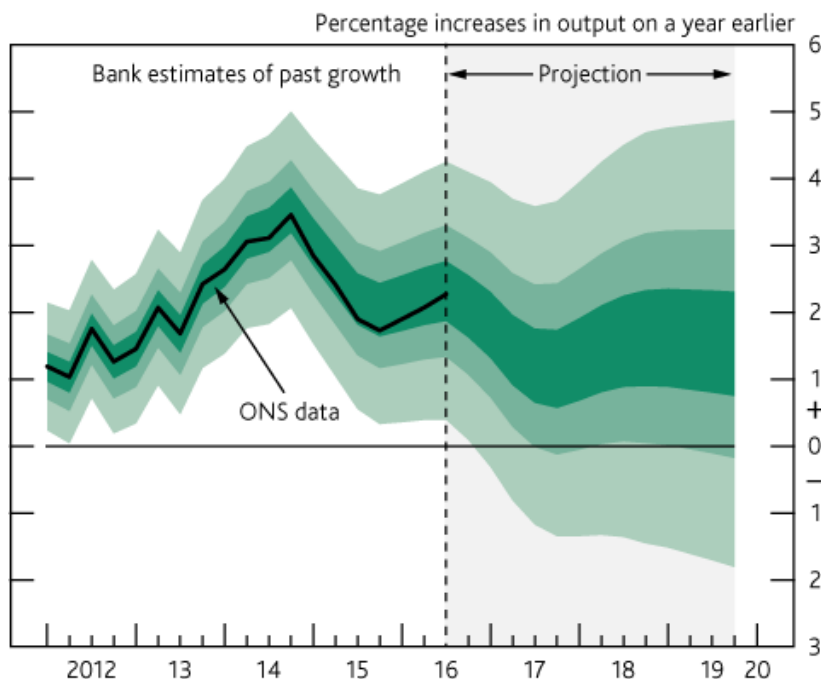
2 Introduction

- 2.1 The Council has commissioned this study to contribute towards an evidence base to inform its emerging Local Plan. The aim of the study is to assess at high level the viability of development typologies representing the types of sites that are expected to come forward to test the cumulative impact of planning policies in the emerging Local Plan, alongside the Council's emerging Community Infrastructure Levy ('CIL') rates.
- 2.2 In terms of methodology, we adopted standard residual valuation approaches to test the viability of development typologies, including the impact on viability of the Council's proposed planning policies alongside the proposed levels of CIL. However, due to the extent and range of financial variables involved in residual valuations, they can only ever serve as a guide. Individual site characteristics (which are unique), mean that conclusions must always be tempered by a level of flexibility in application of policy requirements on a site by site basis.

Economic and housing market context

- 2.3 The housing and commercial property markets are inherently cyclical. The historic highs achieved in the UK housing market by mid-2007 followed a prolonged period of real house price growth. However, a period of 'readjustment' began in the second half of 2007, triggered initially by rising interest rates and the emergence of the US subprime lending problems in the last quarter of 2007. The subsequent reduction in inter-bank lending led to a general "credit crunch" including a tightening of mortgage availability. The real crisis of confidence, however, followed the collapse of Lehman Brothers in September 2008, which forced the government and the Bank of England to intervene in the market to relieve a liquidity crisis.
- 2.4 The combination of successive shocks to consumer confidence and the difficulties in obtaining finance led to a sharp reduction in transactions and a significant correction in house prices in the UK, which fell to a level some 21% lower than at their peak in August 2007 according to the Halifax House Price Index. Consequently, residential land values fell by some 50% from peak levels. One element of government intervention involved successive interest rate cuts and as the cost of servicing many people's mortgages is linked to the base rate, affordability of repayments helped to boost demand for housing. This, together with a return to economic growth early in 2010 (see November 2016 Bank of England GDP fan chart below, showing the range of the Bank's predictions for GDP growth to 2019) meant that consumer confidence started to improve.
- 2.5 From the first half of 2010 improved consumer confidence fed through into more positive interest from house purchasers. However, this brief resurgence abated with figures falling and then fluctuating in 2011 and 2012. The improvement in the housing market towards the end of 2012 continued through into 2013 at which point the growth in sales values improved significantly through to the last quarter of 2014, where the pace of the improvement was seen to moderate and continued to do so in 2015. In March 2016, we highlighted downside risks in the form of the changing tax regime for buy to let investments and challenging economic conditions in some parts of the country. The regional economic implications of falling global demand in the manufacturing and oil sectors were also identified as likely to take its toll on house price growth in those exposed regions.
- 2.6 In the Referendum held on 23 June 2016 concerning the UK's membership of the EU, a decision was taken to exit. The immediate aftermath of the result of the vote was "panic" with the Pound Sterling falling to a 31 year low and stocks overselling due to the earnings of the FTSE being largely in US Dollars. As the Pound dropped significantly this supported the stock market, which has since recouped all of the losses seen and is near the all-time highs. We are now in a period of uncertainty in relation to many factors that impact the property investment and letting markets, however there are tentative signs of improvement and resilience in the market. This includes The International Monetary Fund having revised its forecast for UK growth in 2016 on 4 October 2016 from 1.7% to 1.8%, thereby partly reversing the cut it made to the forecast shortly after the Referendum (1.9% to 1.7%). However it further trimmed its 2017 forecast from 1.3% to 1.1%, which stood at 2.2% prior to the Referendum.

- 2.7 The UK's first official growth figures since the Brexit vote have been published and exceed initial estimates. Office for National Statistics ('ONS') GDP figures were 0.5%, higher than analyst's predictions of 0.3%. The ONS has highlighted that *"the pattern of growth continues to be broadly unaffected following the EU referendum"*. Initial expectations are that the better than expected GDP figures will deter the Bank of England Monetary Policy Committee from going ahead with any further interest rate cuts. The Economy has slowed slightly from the Q2 figure of 0.7% and the pattern is a slightly unbalanced one with the only sector of the economy continuing to grow being the services industry at 0.8%. Data from the construction and manufacturing sector are on a continuing trend of stagnation and decline, with construction contracting by 1.4% and manufacturing 0.4%. It was expected that manufacturing would be bolstered by the unprecedented fall in the value of the pound, however this has failed to materialise. Overall the figures are better than expected, however experts have warned that forecasts for 2017 are gloomier, as Britain begins the formal process of exiting the EU through the process of invoking article 50. Theresa May has announced that Article 50 will be triggered at the end of March (Q1) 2017, and any adverse impacts of leaving the EU on the UK economy are unlikely to become apparent until the terms of departure and future trading arrangements are settled. Nevertheless, the Bank of England's November Inflation report increases predicted economic growth from 0.8% to 1.4% for next year, but decreased growth in 2018 from 1.8% to 1.5%. The revisions indicate that the Bank now considers that the impact of the UK's departure from the EU will be felt later than initially expected.



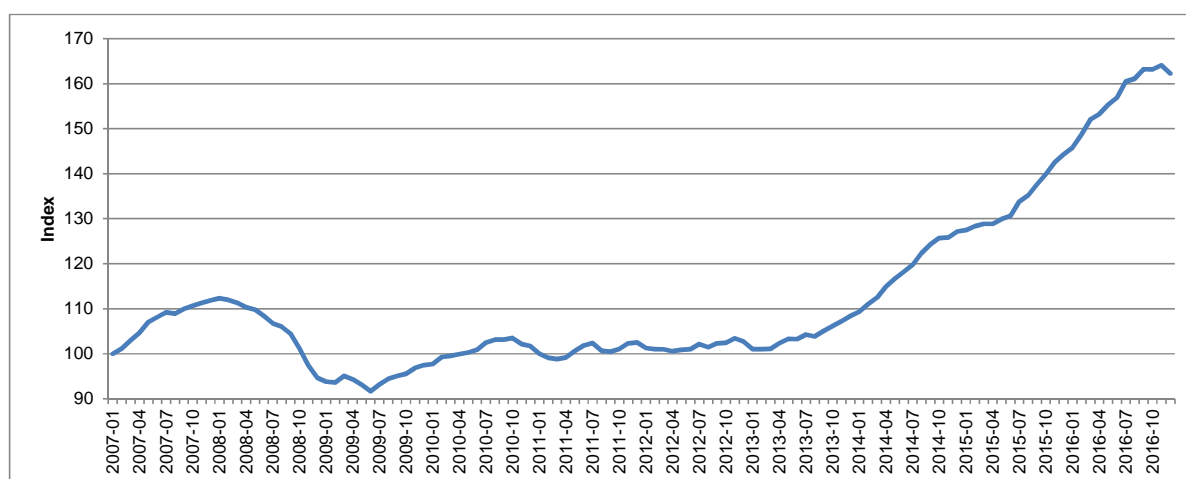
Source: Bank of England

- 2.8 The November Halifax House Price Index report indicates that house prices in the three months to October were 5.2% higher on average than the equivalent three months of 2015, with the annual rate of growth easing from 5.8% in October to 5.2%. Martin Ellis, the Halifax housing economist comments that, *"Annual house price growth has nearly halved from a peak of 10.0% in March this year, but remains robust at 5.2%. This expected slowdown appears to have been largely due to mounting affordability pressures, which have increasingly constrained housing demand. Whilst house price growth may ease further in the coming months, very low mortgage rates and a shortage of properties available for sale should help support price levels"*.
- 2.9 It is worth noting that Nationwide's chief Economist reported in Nationwide's October House Price Index that *"Measures of housing market activity remain fairly subdued, with the number of residential property transactions c10% below the levels recorded in the same period of 2015 in recent months"*. He reflected that *"this weakness may still in part reflect the after-effects of the introduction stamp duty on second homes introduced in April, where buyers brought forward transactions to Q1 to avoid*

additional stamp duty liabilities (see chart below). Policy changes impacting the Buy to Let market may also be playing a role in dampening activity”.

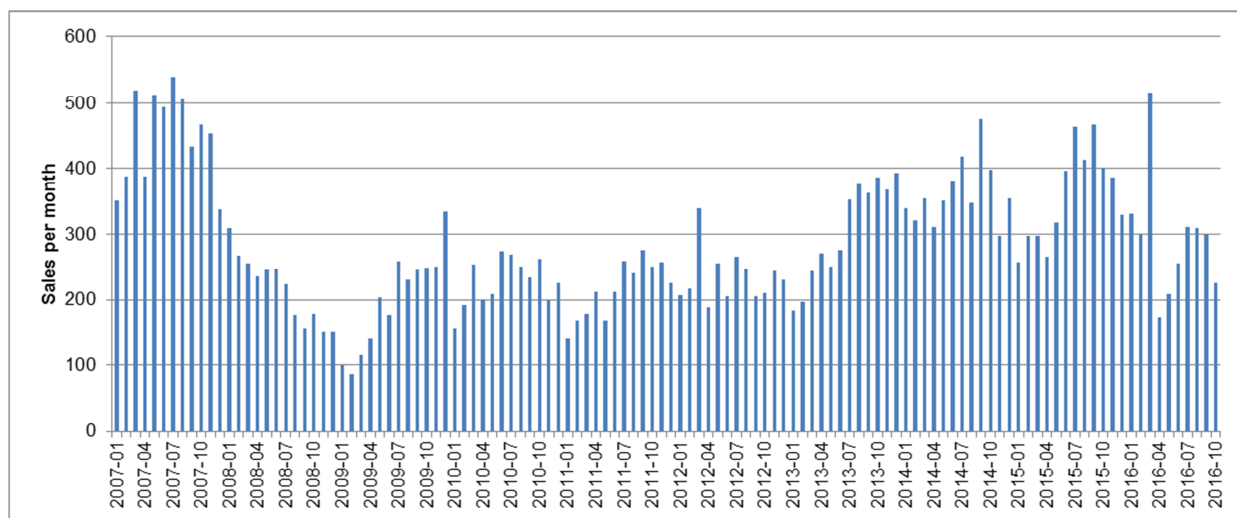
- 2.10 We also note that the Nationwide have reported that they consider *“the solid labour market conditions and historically low borrowing costs should provide support to buyer confidence. Moreover, the relatively low number of homes on the market and modest rates of housing construction are likely to keep the demand/supply balance fairly tight, even if economic conditions weaken in the quarters ahead, as most forecasters expect”.*
- 2.11 All sources reviewed support the view that the economic outlook is uncertain, and the five year outlook for housing value growth in the UK will be *“almost wholly dependent on the UK’s terms of exit from the EU and the agreements that we manage to put in place”* (JLL Unchartered Territory Report (UK Research November 2016, UK Residential Forecasts)).
- 2.12 Savills identify in their Residential Property Focus Q4 2016 Report (published November 2016) that, *“The effect of Brexit is complicating a natural shift towards the later stages of the housing market cycle, when the strongest growth is seen beyond London and the South East. All regions are expected to see reduced house price growth as the economy slows”.* They highlight the expectation that negotiations on the terms of the UK’s departure from the EU and future trading arrangements will be concluded by early 2019, which will bring *“to an end the two-year period of greatest uncertainty...As buyer confidence returns, low mortgage rates should mean there is capacity for a small bounce-back in house prices”.* Thus the consensus in the market is that UK housing market will be more subdued for the next 2-3 years, as uncertainty in the economy will begin to have a dampening effect on the levels of activity. JLL identify in their November report that, they consider that the housing market *“will remain reasonably active with little chance of meaningful price corrections”.*
- 2.13 According to Land Registry data, residential sales values in Havering have recovered since the lowest point in the cycle in June 2009. Prices increased by 77% between June 2009 and December 2016. In December 2016, sales values were 44% higher than the previous (January 2008) peak value (see figures 2.13.1 and 2.13.2). There is also significant demand for new housing in the Borough, where the housing market operates as part of the wider London housing market. The Further Alterations to the London Plan (2015) have increased housing targets across London to address this demand. Havering’s housing delivery target is 11,701 units over the ten period to 2025.

Figure 2.13.1: House prices in Havering (January 2007 = 100)



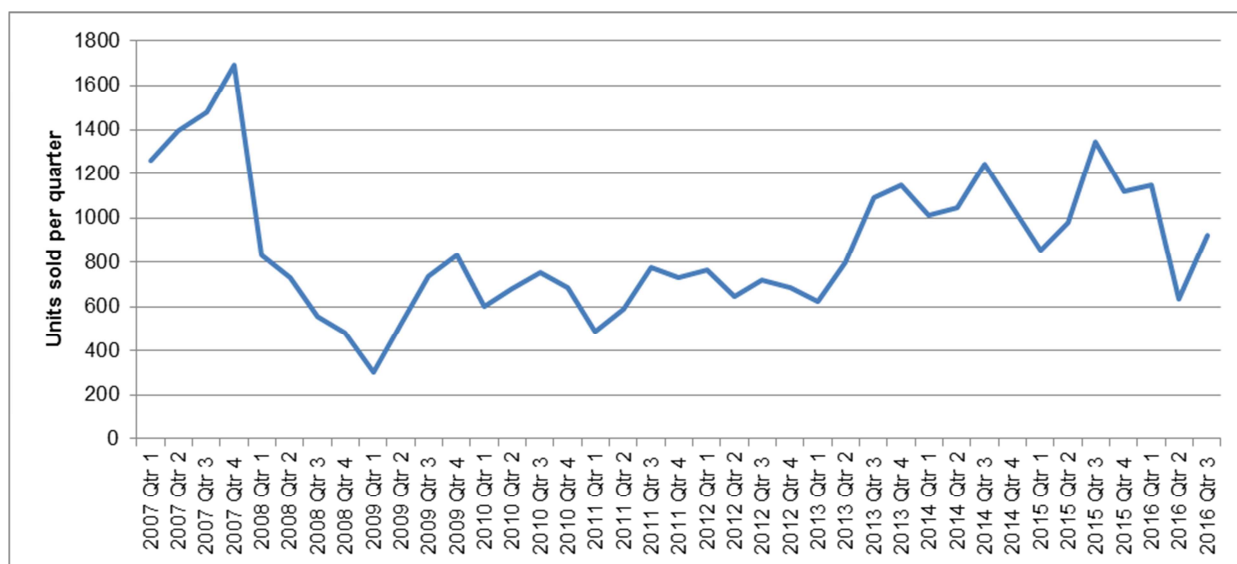
Source: Land Registry

Figure 2.13.2: Sales volumes in Havering (sales per month)



Source: Land Registry

Figure 2.13.3: Sales volumes in Havering (sales per quarter)



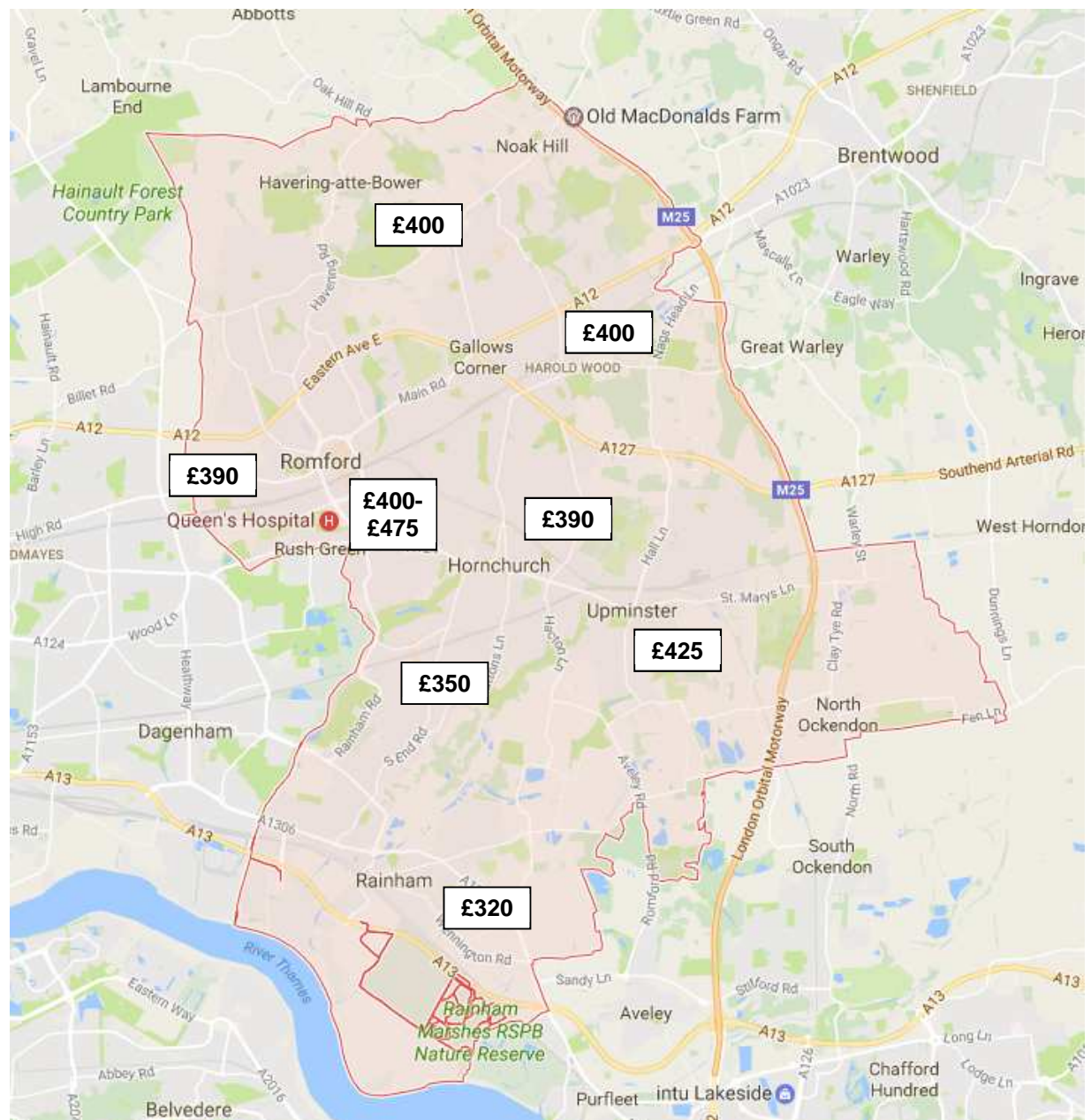
Source: Land Registry

- 2.14 The future trajectory of house prices is currently uncertain, although Savills Property Focus Quarter 4 2016 prediction is that values are expected to increase over the next five years. Medium term predictions are that properties in mainstream London markets will grow over the period between 2017 and 2021³. Savills predict that values in mainstream London markets (i.e. non-prime) will increase by 1% in 2017, 1.5% in 2018, 6.5% in 2019, 4.0% in 2020 and 6% in 2021. This equates to cumulative growth of 19% between 2017 and 2021 inclusive.
- 2.15 In common with other Boroughs in London, there are variations in sales values between different parts of Havering, as shown in Figure 2.15.1. Highest sales values are achieved around the key transport hubs of Romford, Gidea Park and Harold Wood, which will benefit from access to Crossrail (from 2018) and Upminster. In the centre and east of the Borough, values are slightly lower than in the west. Values are lowest in the south of the borough where public transport accessibility and

³ Savills Property Focus Quarter 4 (November 2016)

frequency of services is lower.

Figure 2.15.1: Sales values in Havering (approx. £s per square foot)



Sources: Map – Google; Values – comparable evidence

National Policy Context

The National Planning Policy Framework

- 2.16 In March 2012, the old suite of planning policy statements and planning policy guidance was replaced by a single document – the National Planning Policy Framework ('NPPF'). The NPPF has subsequently been supplemented by the National Planning Practice Guidance ('NPPG').
- 2.17 The NPPF provides more in-depth guidance on viability of development than Planning Policy Statement 3, which limited its attention to requiring local planning authorities to test the viability of their affordable housing targets. The NPPF requires that local planning authorities have regard to

the impact on viability of the *cumulative effect* of all their planning requirements on viability. Paragraph 173 of the NPPF requires that local planning authorities give careful attention “*to viability and costs in plan-making and decision-taking*”. The NPPF requires that “*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*”. After taking account of policy requirements, land values should be sufficient to “*provide competitive returns to a willing landowner and willing developer*”.

- 2.18 The meaning of a “*competitive return*” has been the subject of considerable debate over the past year. For the purposes of testing the viability of a Local Plan, the Local Housing Delivery Group⁴ has concluded that the current use value of a site (or a credible alternative use value) plus an appropriate uplift, represents a competitive return to a landowner. Some members of the RICS consider that a competitive return is determined by market value⁵, although there is no consensus around this view.

CIL

- 2.19 The Council issued its ‘PDCS for consultation in February 2015. Table 2.19.1 below summarises the proposed rates of CIL. For residential developments, the borough is divided into two zones; north of the A1306 and south of the A3016 at rates of either £50 or £70 per square metre.

Table 2.19.1: CIL rates in the PDCS

Type of Development	CIL Rates £ per square metre Net additional floorspace
Open market residential north of the A1306	£70
Open market residential south of the A1306	£50
Private care/retirement housing north of the A1306	£70
Private care/retirement housing south of the A1306	£50
Office and Industrial	£0
Retail – supermarkets, superstores and retail warehouses above 2,000m2 gross internal area	£175
Retail – below 2,000 m2 gross internal area in Metropolitan, District and Local Centres as defined in the Havering Core Strategy, 2008.	£50
Hotel	£20
All other development	£0

- 2.20 The Borough is located within Mayoral CIL Zone 3, which attracts a rate of £20 per square metre.

Crossrail Section 106

- 2.21 Havering has three existing stations that will be served by the new Crossrail service from 2018 (Romford, Gidea Park and Harold Wood. The Borough will not benefit from any new stations as a result of the introduction of the service.
- 2.22 Developments within one kilometre of the four stations will therefore be subject to the ‘Rest of London’ Crossrail Section 106 top-up charge. Developments are required to pay the higher of the Mayoral CIL or the Crossrail Section 106 charges which are £31 per square metre for offices and £16 per square metre for retail. The retail rate is lower than the prevailing rate of Mayoral CIL in the Borough (£20 per square metre), so there is no Crossrail Section 106 top up. However, the office charge of £31 per square metre exceeds the Mayoral CIL rate of £20 per square metre, so a top up

⁴ Viability Testing Local Plans: Advice for planning practitioners, June 2012

⁵ RICS Guidance Note: Financial Viability in Planning, August 2012

of £11 is payable.

Local Policy context

- 2.23 There are numerous policy requirements that are now embedded in base build costs for schemes in London addressing London Plan requirements, which are mirrored in borough core strategies (i.e. secure by design, lifetime homes, landscaping, amenity space, internal space standards, car parking, waste storage, tree preservation and protection etc). Therefore it is unnecessary to establish the cost of all these pre-existing policy requirements. Appendix 1 summarises the Council's analysis of the anticipated cost of new or amended policies.
- 2.24 It is therefore considered prudent to assume that developments can absorb the pre-existing requirements in the adopted policies. Therefore only the elements of the policy framework which are proposed to change and which have cost implications for developments will need to be tested.
- 2.25 In addition to financing infrastructure through Section 106 (subject to pooling restrictions), the Council expects residential developments to provide a mix of affordable housing tenures to help meet identified housing needs. Policy 6 requires all developments of more than 10 dwellings or residential developments of 1,000 sqm or more to provide at least 35% affordable housing based on habitable rooms, subject to individual scheme viability. The Policy sets a proposed tenure mix of 70% social/affordable housing and 30% intermediate housing. We have therefore tested the viability of schemes providing 25%, 35% and 50% of units as affordable.
- 2.26 In 2015, the Council consulted on its key issues and priorities for a new Havering Local Plan. The Council has considered the viability implications of these emerging policies and their conclusions are attached at Appendix 1. As a result of the recent housing standards review, the government no longer intends to incorporate Code for Sustainable Homes into building regulations in 2016 as previously planned. We have therefore included an allowance for Code for Sustainable Homes level 4 only which reflects the standards currently include in Part L of the Building Regulations.

Development context

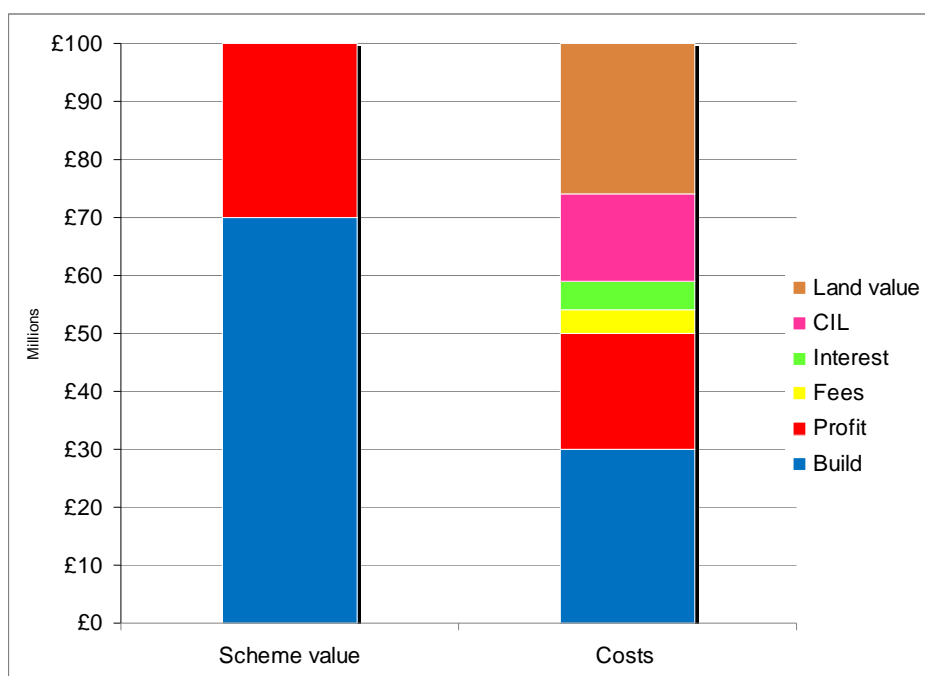
- 2.27 Havering is located in north-east London. It is the third largest borough in London (in terms of land area) with 11,227 hectares. The borough benefits from good transport links and plentiful open space, with over 50% of land within the green belt. There are three main train routes providing services to central London; the Transport for London Rail service which serves stations at Romford, Gidea Park and Harold Wood, with frequent train services to Liverpool Street Station; secondly, the c2c mainline service to Fenchurch Street Station serving Rainham Station; and thirdly, the c2c service at Upminster which provides access to Fenchurch Street. In addition, the Underground District Line serves stations at Elm Park, Hornchurch and Upminster.
- 2.28 The Borough has significant opportunities for development through the recycling of previously developed sites, including vacant and under-utilised commercial sites, car parks, surplus public sector land and existing Council owned housing estates in addition to smaller infill sites
- 2.29 The Proposed Submission Local Plan identifies two key growth areas in the Borough. Romford Strategic Development Area ('SDA') which has the capacity for at least 5,500 new homes and Rainham and Beam Park SDA which has the capacity for a minimum of 3,000 new homes There is also the potential for an additional 900 homes on existing Council housing estates outside of the two SDAs.

3 Methodology and appraisal inputs

- 3.1 Our methodology follows standard development appraisal conventions, using locally-based sites and assumptions that reflect local market and planning policy circumstances. The study is therefore specific to Havering and reflects the Council's existing and emerging planning policy requirements.

Approach to testing development viability

- 3.2 Appraisal models can be summarised via the following diagram. The total scheme value is calculated, as represented by the left hand bar. This includes the sales receipts from the private housing (the blue portion) and the payment from a Registered Provider ('RP') (the red portion) for the completed affordable housing units. For a commercial scheme, scheme value equates to the capital value of the rental income after allowing for rent free periods and purchaser's costs. The model then deducts the build costs, fees, interest, CIL and developer's profit. A 'residual' amount is left after all these costs are deducted – this is the land value that the Developer would pay to the landowner. The residual land value is represented by the brown portion of the right hand bar in the diagram.



- 3.3 The Residual Land Value is normally a key variable in determining whether a scheme will proceed. If a proposal generates sufficient positive land value (in excess of existing use value, discussed later), it will be implemented. If not, the proposal will not go ahead, unless there are alternative funding sources to bridge the 'gap'.
- 3.4 Issues with establishing key appraisal variables are summarised as follows:
- Development costs are subject to national and local monitoring and can be reasonably accurately assessed in 'normal' circumstances. In Boroughs like Havering, many sites will be previously developed. These sites can sometimes encounter 'exceptional' costs such as decontamination. Such costs can be very difficult to anticipate before detailed site surveys are undertaken;
 - Assumptions about development phasing, phasing of Section 106 contributions and infrastructure required to facilitate each phase of the development will affect residual values. Where the delivery of the obligations are deferred, the less the real cost to the applicant (and the greater the scope for increased affordable housing and other planning obligations). This is

because the interest cost is reduced if the costs are incurred later in the development cashflow; and

- While Developer's Profit has to be assumed in any appraisal, its level is closely correlated with risk. The greater the risk, the higher the profit level required by lenders. While profit levels were typically up to around 15% of completed development value at the peak of the market in 2007, banks currently require schemes to show a higher profit to reflect the current risk. Typically developers and banks are targeting around 17-20% profit on value of the private housing element.

- 3.5 Ultimately, the landowner will make a decision on implementing a project on the basis of return and the potential for market change, and whether alternative developments might yield a higher value. The landowner's 'bottom line' will be achieving a residual land value that sufficiently exceeds 'existing use value'⁶ or another appropriate benchmark to make development worthwhile. The margin above existing use value may be considerably different on individual sites, where there might be particular reasons why the premium to the landowner should be lower or higher than other sites.
- 3.6 Clearly, however, landowners have expectations of the value of their land which often exceed the value of the current use. Ultimately, if landowners' reasonable expectations are not met, they will not voluntarily sell their land and (unless a Local Authority is prepared to use its compulsory purchase powers) some may simply hold on to their sites, in the hope that policy may change at some future point with reduced requirements. However, the communities in which development takes place also have reasonable expectations that development will mitigate its impact, in terms of provision of community infrastructure, which will reduce land values. It is within the scope of those expectations that developers have to formulate their offers for sites. The task of formulating an offer for a site is complicated further still during buoyant land markets, where developers have to compete with other developers to secure a site, often speculating on increases in value.

Viability benchmark

- 3.7 The NPPF is not prescriptive on the type of methodology local planning authorities should use when assessing viability. The National Planning Practice Guidance indicates that the NPPF requirement for a 'competitive return' to the landowner will need to allow for an incentive for the land owner to sell and options may include "*the current use value of the land or its value for a realistic alternative use that complies with planning policy*" (para 024; reference ID 10-024-20140306).
- 3.8 The Local Housing Delivery Group published guidance⁷ in June 2012 which provides guidance on testing viability of Local Plan policies. The guidance notes that "*consideration of an appropriate Threshold Land Value [or viability benchmark] needs to take account of the fact that future plan policy requirements will have an impact on land values and landowner expectations. Therefore, using a market value approach as the starting point carries the risk of building-in assumptions of current policy costs rather than helping to inform the potential for future policy*".
- 3.9 In light of the weaknesses in the market value approach, the Local Housing Delivery Group guidance recommends that benchmark land value "*is based on a premium over current use values*" with the "*precise figure that should be used as an appropriate premium above current use value [being] determined locally*". The guidance considers that this approach "*is in line with reference in the NPPF to take account of a 'competitive return' to a willing land owner*".
- 3.10 The examination on the Mayor of London's CIL charging schedule considered the issue of an appropriate land value benchmark. The Mayor had adopted existing use value, while certain objectors suggested that 'Market Value' was a more appropriate benchmark. The Examiner concluded that:

⁶ For the purposes of this report, existing use value is defined as the value of the site in its existing use, assuming that it remains in that use. We are not referring to the RICS Valuation Standards definition of 'Existing Use Value'.

⁷ Viability Testing Local Plans: Advice for planning practitioners, Local Housing Delivery Group, Chaired by Sir John Harman, June 2012

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

3.11 In his concluding remark, the Examiner points out that

*“the price paid for development land may be reduced [so that CIL may be accommodated]. As with profit levels there may be cries that this is unrealistic, but **a reduction in development land value is an inherent part of the CIL concept**. It may be argued that such a reduction may be all very well in the medium to long term but it is impossible in the short term because of the price already paid/agreed for development land. The difficulty with that argument is that if accepted the prospect of raising funds for infrastructure would be forever receding into the future. In any event in some instances it may be possible for contracts and options to be re-negotiated in the light of the changed circumstances arising from the imposition of CIL charges. (para 32 – emphasis added).*

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

3.13 Respondents to consultations on planning policy documents in other authorities in London have made various references to the RICS Guidance on ‘Viability in Planning’ and have suggested that councils should run their analysis on market values. This would be an extremely misleading measure against which to test viability, as market values should reflect *existing policies already in place*, and would consequently tell us nothing as to how future (as yet un-adopted) policies might impact on viability. It has been widely accepted elsewhere that market values are inappropriate for testing planning policy requirements.

3.14 Relying upon historic transactions is a fundamentally flawed approach, as offers for these sites will have been framed in the context of current planning policy requirements, so an exercise using these transactions as a benchmark would tell the Council nothing about the potential for sites to absorb as yet unadopted policies. Various Local Plan inspectors and CIL examiners have accepted the key point that Local Plan policies and CIL will ultimately result in a reduction in land values, so benchmarks must consider a reasonable minimum threshold which landowners will accept. For local authority areas such as Havering, where the vast majority of sites are previously developed, the ‘bottom line’ in terms of land value will be the value of the site in its existing use. This fundamental point is recognised by the RICS at paragraph 3.4.4. of their Guidance Note on ‘Financial Viability in Planning’:

“For a development to be financially viable, any uplift from current use value to residual land value that arises when planning permission is granted should be able to meet the cost of planning obligations while ensuring an appropriate Site Value for the landowner and a market risk adjusted return to the developer in delivering that project (the NPPF refers to this as ‘competitive returns’ respectively). The return to the landowner will be in the form of a land value in excess of current use value”.

3.15 The Guidance goes on to state that *“it would be inappropriate to assume an uplift based on set percentages ... given the diversity of individual development sites”.*

3.16 Commentators also make reference to ‘market testing’ of benchmark land values. This is another variant of the benchmarking advocated by respondents outlined at paragraph 3.13. These respondents advocate using benchmarks that are based on the prices that sites have been bought and sold for. There are significant weaknesses in this approach which none of the respondents who advocate this have addressed. In brief, prices paid for sites are a highly unreliable indicator of their actual value, due to the following reasons:

- Transactions are often based on bids that 'take a view' on squeezing planning policy requirements below target levels. This results in prices paid being too high to allow for policy targets to be met. If these transactions are used to 'market test' CIL rates, the outcome would be unreliable and potentially highly misleading.
 - Historic transactions of housing sites are often based on the receipt of grant funding, which is no longer available.
 - There would be a need to determine whether the developer who built out the comparator sites actually achieved a profit at the equivalent level to the profit adopted in the viability testing. If the developer achieved a sub-optimal level of profit, then any benchmarking using these transactions would produce unreliable and misleading results.
 - Developers often build assumptions of growth in sales values into their appraisals, which provides a higher gross development value than would actually be achieved today. Given that our appraisal are based on current values, using prices paid would result in an inconsistent comparison (i.e. current values against the developer's assumed future values). Using these transactions would produce unreliable and misleading results.
- 3.17 These issues are evident from a recent BNP Paribas Real Estate review of the differences between the value ascribed to developments by applicants and the amounts the sites were purchased for by the same parties. The prices paid exceeded the value of the consented schemes by between 52% and 1,300%.
- 3.18 For the reasons set out above, the approach of using current use values is a more reliable indicator of viability than using market values or prices paid for sites, as advocated by certain respondents. Our assessment follows this approach, as set out in Section 4.

4 Appraisal assumptions

- 4.1 We have appraised 10 development typologies to represent the types of sites that the Council expects to come forward over the plan period. These development typologies are consistent with those adopted in the Council's CIL Viability Study. The development typologies are identified in Table 4.1.1 below.

Table 4.1.1: Development typologies tested in the study

Typology No.	Number of units	Housing type	Development density units per ha	Site area (ha)
1	10	Houses	30	0.33
1	30	Flats and Houses	40	0.75
2	50	Flats and Houses	60	0.83
3	80	Flats and Houses	80	1.00
4	110	Flats and Houses	110	1.00
5	150	Flats	150	1.00
6	275	Flats	275	1.00
7	325	Flats	325	1.00
8	375	Flats	375	1.00
9	435	Flats	435	1.00

- 4.2 The unit mix and unit sizes required by the Council are summarised in Table 4.2.1.

Table 4.2.1: Unit size and mix

Site type	1 Bed flat	2 bed flat	3 bed flat	4 bed flat	2 Bed House	3 Bed House	4 Bed House
Size (sq m)	50	70	90	115	75	95	120
1					30%	50%	20%
2	20%				40%	30%	10%
3	20%				40%	30%	10%
4	20%	10%	10%		30%	20%	10%
5	20%	15%	15%		25%	15%	10%
6	20%	25%	25%		25%	5%	
7	20%	40%	30%	10%			
8	20%	40%	30%	10%			
9	35%	35%	25%	5%			
10	40%	40%	20%				

Residential sales values

- 4.3 Residential values in the area reflect national trends in recent years but do of course vary between different sub-markets, as noted in Section 2. We have considered comparable evidence of transacted properties in the area and also properties on the market to establish appropriate values for each scheme for testing purposes. This exercise indicates that the developments in the sample will attract average sales values ranging from circa £3,445 per square metre (£320 per square foot)

to £5,110 per square metre (£475 per square foot).

- 4.4 As noted earlier in the report, Savills predict that sales values will increase over the medium term (i.e. the next five years). Whilst this predicted growth cannot be guaranteed, we have run a series of sensitivity analyses assuming growth in sales values of 10%, accompanied by cost inflation of 5%⁸ and growth in values by 20% and cost inflation of 10%. The results of these sensitivity analyses are included in Section 6 and provide the Council with an indication of the impact of changes in values and costs on scheme viability.

Affordable housing tenure and values

- 4.5 Policy 6 of the Council's emerging Local Plan proposes seeking 35% affordable housing on individual sites. Policy 6 indicates that the Council will continue to seek 70% of affordable housing provision as rented housing and the remaining 30% as intermediate housing. We have also tested the impact of seeking higher and lower proportions of affordable housing (25% and 50%).
- 4.6 Our appraisals assume that the rented housing is let at rents that do not exceed Local Housing Allowance rates, so that they are affordable to households subject to the Universal Credit, as shown in Table 4.7.1. The approach adopted is therefore consistent with the rent caps announced in the Autumn Statement in November 2015. It should be noted that the Local Housing Allowances are considerably lower than market rents. Prior to the Autumn Statement, rents for affordable rented units could have (in theory) been set as high as 80% of market rents (inclusive of service charges), but this is no longer an option.

Table 4.6.1: Weekly rents and Local Housing Allowance limits

Unit type	Local Housing Allowance per week	Net London Affordable Rent assumed in appraisals per week	Social rents per week	Traditional Affordable rent per week (80% of average market rents in Havering)	London Living Rent per week
1 bed	£155.57	£155.57	£89.62	£189.60	£194.08
2 beds	£192.62	£192.62	£101.96	£279.20	£215.53
3 beds	£242.40	£242.40	£114.30	£372.80	£237.23
4+ beds	£312.77	£312.77	£129.33	£461.60	£258.69

- 4.7 In the July 2015 Budget, the Chancellor announced that RPs will be required to reduce rents by 1% per annum for the next four years. This will reduce the capital values that RPs will pay developers for completed affordable housing units. At this stage, it is unclear whether this requirement will roll forward beyond the four year period 2015/16 to 2018/19. We have therefore adopted a cautious assumption and assumed that the restriction will remain in place in perpetuity (i.e. every new development will face reduced rents for the first four years, even if they are started after the initial four year period).
- 4.8 Based on the rents above, our modelling indicates that RPs would pay an average of £2,011 per square metre (£187 per square foot) to acquire completed London Affordable Rented units. For 'traditional' Affordable Rented units, RPs would pay £3,095 per square metre (£288 per square foot). For social rented units, RPs would pay an average value of £799 per square metre (£74 per square foot).
- 4.9 The CLG/HCA 'Shared Ownership and Affordable Homes Programme 2016-2021: Prospectus' document clearly states that Registered Providers will not receive grant funding for any affordable housing provided through planning obligations on developer-led developments. Consequently, all our

⁸ Our appraisals do not, however, include any inflation on existing use values, as commercial floorspace is not expected to increase in value over the next four to five years. This is due to general weakness in the economy associated with uncertainty caused by the UK's impending departure from the EU.

appraisals assume nil grant. Clearly if grant funding does become available over the plan period, it should facilitate an increase in the provision of affordable housing when developments come forward.

- 4.10 For shared ownership units, we have assumed that Registered Providers will sell 30% initial equity stakes and charge 2.5% on the retained equity. The rent on retained equity is capitalised using a yield of 6%.

Rents and yields for commercial development

- 4.11 Policy 22 requires that large scale developments in Romford Town Centre provide flexible office floorspace. Developers are likely to provide commercial floorspace on the ground floor of developments, as these floors are often unsuitable for residential use. A requirement for office floorspace could be accommodated on the floors immediately above the ground floor retail, providing a buffer between uses at street level and residential units.
- 4.12 Our assumptions on rents and yields for the retail and office are summarised in Table 4.12.1. These assumptions are informed by lettings of similar floorspace in the area over the past year. Our appraisals assume a 12 month rent-free period for both retail and office floorspace.

Table 4.12.1: Commercial rents (£s per square metre) and yields

Commercial floorspace	Rent per square foot	Investment yield	Rent free period (months)
Retail	350	6.00%	12
Office	200	6.50%	12

- 4.13 Policy 24 requires that 20% of office floorspace is provided as flexible and affordable workspace. We have assumed that this requirement is reflected through a 20% discount to market rents on 20% of the office floorspace.

Build costs

- 4.14 We have sourced build costs from the RICS Building Cost Information Service (BCIS), which is based on tenders for actual schemes. Base costs (adjusted for local circumstances by reference to BICS multiplier) are as follows:
- Houses: £1,128 per square metre;
 - Flats (1-2 storeys): £1,269 per square metre;
 - Flats (3-5 storeys): £1,322 per square metre;
 - Flats (6+ storeys): £1,737 per square metre;
 - Retail: £1,198 per square metre; and
 - Offices: £1,625 per square metre.
- 4.15 In addition, the base costs above are increased by 15% to account for external works (including car parking spaces) and an additional 6% for the standards that are equivalent to Code for Sustainable Homes Level 4 which are now embedded into Part L of the Building Regulations.

Accessibility standards

- 4.16 Our appraisals assume that all units are constructed to meet wheelchair accessibility standards (Category 2) apply to all dwellings at an average cost of £521 per house and £924 per unit for flats. In addition, we have assumed that Category 3 standard applies to 10% of dwellings at a cost of

£22,694 per flat and £7,908 per flat⁹.

Professional fees

- 4.17 In addition to base build costs, schemes will incur professional fees, covering design, valuation, highways consultants and so on. Our appraisals incorporate a 10% allowance, which is at the middle to higher end of the range for most schemes.

Development finance

- 4.18 Our appraisals assume that development finance can be secured at a rate of 7%, inclusive of arrangement and exit fees, reflective of current funding conditions.

Marketing costs

- 4.19 Our appraisals incorporate an allowance of 3% for marketing costs, which includes show homes and agents' fees, plus 0.5% for sales legal fees.

Mayoral CIL and Crossrail Section 106

- 4.20 Mayoral CIL is payable on most developments that receive planning consent from 1 April 2012 onwards. Havering falls within Zone 3, where a CIL of £20 per square metre will be levied. The Mayoral CIL takes precedence over Borough requirements, including affordable housing. Our appraisals take into account Mayoral CIL and, where necessary, Crossrail Section 106. The Borough is located within the "*rest of London contribution area*" where Crossrail Section 106 contributions of £31 per square metre will be sought for office development and £16 per square metre for retail development within a 1 kilometre radius of a Crossrail station. However, where a Crossrail Section 106 contribution is less than the CIL payable, only the CIL is payable. If the CIL is lower than the Crossrail Section 106, then the amount payable is the Crossrail Section 106 (i.e. the CIL plus a 'top up' amount)¹⁰. Mayoral CIL exceeds the Crossrail S106 for retail, but is lower for offices. The top up will therefore apply to retail development but not offices.

Havering CIL

- 4.21 As noted previously, the Council issued its PDCS for consultation in February 2015. Table 4.21.1 below summarises the proposed rates of CIL. For residential developments, the borough is divided into two zones; north of the A1306 and south of the A3016 at rates of either £50 or £70 per square metre.

Table 4.21.1: CIL rates in the PDCS

Type of Development	CIL Rates £ per square metre Net additional floorspace
Open market residential north of the A1306	£70
Open market residential south of the A1306	£50
Private care/retirement housing north of the A1306	£70
Private care/retirement housing south of the A1306	£50
Office and Industrial	£0
Retail – supermarkets, superstores and retail warehouses above 2,000m2 gross internal area	£175

⁹ Based on DCLH '*Housing Standards Review: Cost Impacts*' September 2014

¹⁰ See '*Use of Planning Obligations in the funding of Crossrail, and the Mayoral Community Infrastructure Levy: Supplementary Planning Guidance – April 2013*'

Type of Development	CIL Rates £ per square metre Net additional floorspace
Retail – below 2,000 m2 gross internal area in Metropolitan, District and Local Centres as defined in the Havering Core Strategy, 2008.	£50
Hotel	£20
All other development	£0

- 4.22 The amended CIL Regulations specify that if any part of an existing building is in lawful use for 6 months within the 36 months prior to the time at which planning permission first permits development, all of the existing floorspace will be deducted when determining the amount of chargeable floorspace. This may be the case for many development sites in Havering. However, for the purposes of our appraisals, we have assumed that there is no deduction for existing floorspace.

Section 106 costs

- 4.23 To account for residual Section 106 requirements, we have included an allowance of £20 per square metre for non-residential development and £2,000 per unit for residential development. The actual amounts will of course be subject to site-specific negotiations

Development and sales periods

- 4.24 Development and sales periods vary between type of scheme. However, our sales periods are based on an assumption of a sales rate of 6 units per month, with an element of off-plan sales reflected in the timing of receipts. This is reflective of current market conditions, whereas in improved markets, a sales rate of up to 8 units per month might be expected. We also note that many schemes in London have sold entirely off-plan, in some cases well in advance of completion of construction.

Developer's profit

- 4.25 Developer's profit is closely correlated with the perceived risk of residential development. The greater the risk, the greater the required profit level, which helps to mitigate against the risk, but also to ensure that the potential rewards are sufficiently attractive for a bank and other equity providers to fund a scheme. In 2007, profit levels were at around 15-17% of development costs. However, following the impact of the credit crunch and the collapse in interbank lending and the various government bailouts of the banking sector, profit margins have increased. It is important to emphasise that the level of minimum profit is not necessarily determined by developers (although they will have their own view and the Boards of the major housebuilders will set targets for minimum profit).
- 4.26 The views of the banks which fund development are more important; if the banks decline an application by a developer to borrow to fund a development, it is very unlikely to proceed, as developers rarely carry sufficient cash to fund it themselves. Consequently, future movements in profit levels will largely be determined by the attitudes of the banks towards development proposals.
- 4.27 The near collapse of the global banking system in the final quarter of 2008 is resulting in a much tighter regulatory system, with UK banks having to take a much more cautious approach to all lending. In this context, and against the backdrop of the current sovereign debt crisis in the Eurozone, the banks were for a time reluctant to allow profit levels to decrease. However, perceived risk in the UK housing market is receding, albeit there is a degree of caution in prime central London markets as a consequence of the outcome of the referendum on the UK's membership of the EU. We have therefore adopted a profit margin of 20% for testing purposes, although individual schemes may require lower or higher profits, depending on site specific circumstances.
- 4.28 Our assumed return on the affordable housing GDV is 6%. A lower return on the affordable housing is appropriate as there is very limited sales risk on these units for the developer; there is often a pre-

sale of the units to an RSL prior to commencement. Any risk associated with take up of intermediate housing is borne by the acquiring RSL, not by the developer. A reduced profit level on the affordable housing reflects the GLA 'Development Control Toolkit' guidance (February 2014) and Homes and Communities Agency's guidelines in its Development Appraisal Tool (August 2013).

Exceptional costs

- 4.29 Exceptional costs can be an issue for development viability on previously developed land. Exceptional costs relate to works that are 'atypical', such as remediation of sites in former industrial use and that are over and above standard build costs. However, in the absence of details site investigations, it is not possible to provide a reliable estimate of what exceptional costs might be. Our analysis therefore excludes exceptional costs, as to apply a blanket allowance would generate misleading results. An 'average' level of costs for abnormal ground conditions and some other 'abnormal' costs is already reflected in BCIS data, as such costs are frequently encountered on sites that form the basis of the BCIS data sample.

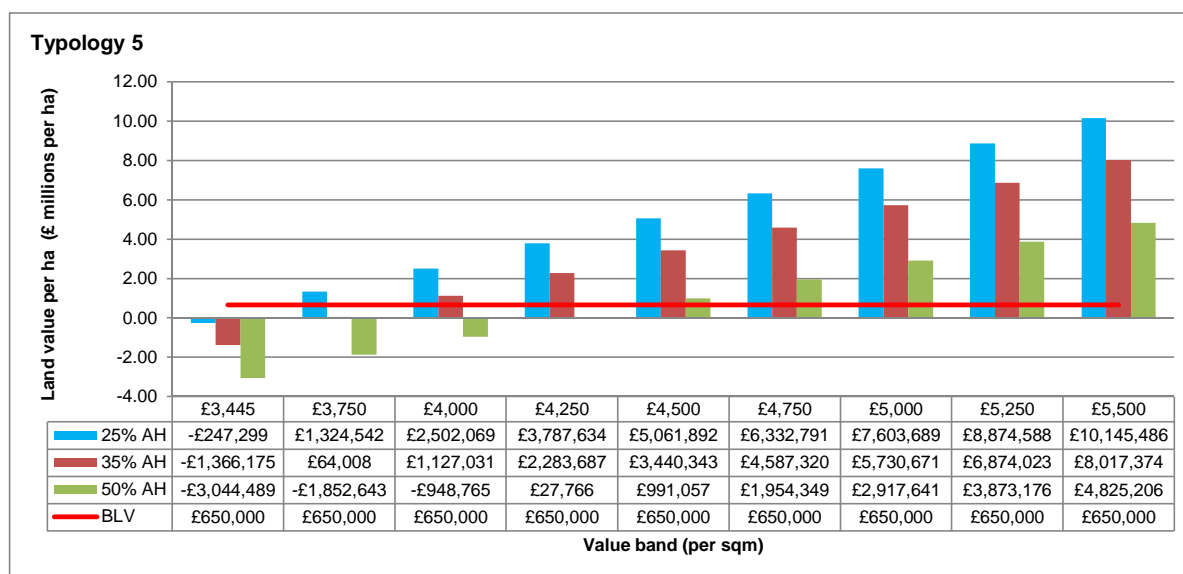
Benchmark land values

- 4.30 Benchmark land values, based on the existing use value or alternative use value of sites are key considerations in the assessment of development economics for testing planning policies and tariffs. Clearly, there is a point where the Residual Land Value (what the landowner receives from a developer) that results from a scheme may be less than the land's existing use value. Existing use values can vary significantly, depending on the demand for the type of building relative to other areas. Similarly, subject to planning permission, the potential development site may be capable of being used in different ways – as a hotel rather than residential for example; or at least a different mix of uses. Existing use value or alternative use value are effectively the 'bottom line' in a financial sense and therefore a key factor in this study.
- 4.31 The Council's CIL viability study adopts a proxy of industrial value to establish a benchmark land value for testing purposes. The study adopts a rent of £80 per square metre, reflecting low grade single-storey industrial buildings, with 20% site coverage. The rent is capitalised at a 10% yield, resulting in a capital value of £0.64 million per gross hectare, inclusive of a 15% premium.

5 Appraisal outputs

- 5.1 The full inputs to and outputs from our appraisals of the various developments are set out in Section 6 and Appendix 2. We have appraised 10 development typologies, reflecting different densities and types of development across the Borough. Each appraisal incorporates (where relevant) the Council's emerging 35% affordable housing requirement along with a number of higher and lower levels (25% and 50%).
- 5.2 For each site, where relevant, the results of the following analyses are provided with regards to the Council's affordable housing policies:
- 25% affordable housing;
 - 35% affordable housing; and
 - 50% affordable housing.
- 5.3 Viability has been tested at three four levels of affordable housing, although it should be noted that if a scheme is shown to be viable, a greater level of affordable housing may be provided within the 'interval' that has been tested. For example, if a scheme is shown to be viable with 25% affordable housing, but not with 35% affordable housing the actual level of affordable housing that could be provided will fall between 26 and 34%.
- 5.4 We have also tested the developments with CIL reflecting the proposed PDCS rates (i.e. £70 per square metre north of the A1306 and £50 per square metre south of the A1306) and £50 per square metre on retail development. We have also undertaken a sensitivity analysis which increases the CIL rates to £90 and £50 per square metre respectively.
- 5.5 An example of the layout of the results is provided below (Figure 5.5.1) which summarises the residual land values for Development Typology 1. The nine sets of three bars show the residual land values assuming 25%, 35% and 50% affordable housing, with sales values ranging from £3,445 to £5,500 per square metre. The benchmark land value is shown as a vertical line across the chart. Where the bars exceed the line, the scheme is viable, as the residual land value is higher than the benchmark land value.
- 5.6 At £4,000 per square metre (the third set of bars from the left), the residual land value at both 25% and 35% affordable housing is higher than the benchmark land value, so both levels of affordable housing are viable. However, the residual land value at 50% is negative and unviable.

Figure 5.5.1: Example of appraisal results



6 Assessment of the results

- 6.1 This section sets out the results of our appraisals with the residual land values calculated for scenarios with sales values and capital values reflective of market conditions across the Borough. These RLVs are then compared to the benchmark land value as set out in Section 4.
- 6.2 Development value is finite and – in densely developed Boroughs such as Havering - is rarely enhanced through the adoption of new policy requirements. This is because existing use values are sometimes relatively high prior to development. In contrast, areas which have previously undeveloped land clearly have greater scope to secure an uplift in land value through the planning process.
- 6.3 In assessing the results, it is important to clearly distinguish between two scenarios; namely, schemes that are unviable *regardless of the Council's policy requirements, including the level of CIL* (including a nil rate) and schemes that are viable *prior* to the imposition of policy requirements. If a scheme is unviable before policy requirements and CIL are levied, it is unlikely to come forward and policy requirements and CIL would not be a factor that comes into play in the developer's/landowner's decision making. The unviable schemes will only become viable following an increase in values and sites would remain in their existing use.

Affordable housing (current tenure requirement of 70% rent and 30% intermediate)

- 6.4 The first set of appraisals considers the impact of the Council's requirements for affordable housing, which seek the provision of 35% affordable housing, with a tenure mix of 70% rented and 30% intermediate housing. The results are summarised in figures 6.4.1 to 6.4.10 which show the residual land values for each development typology with 25%, 35% and 50% affordable housing.
- 6.5 The first set of appraisals are all in present costs and present values, i.e. the outcome if the schemes were to come forward today. Lower density typologies (i.e. typologies 1, 2 and 3) which are predominantly houses with lower build costs and higher efficiency in comparison to flats, generate positive residual land values across the borough. These residual land values exceed the benchmark land value when affordable housing of up to 50% is included.
- 6.6 The higher density typologies only generate positive residual land values in the higher value parts of the borough and will only support affordable housing at a rate of between 25% and 35%. This is consistent with the likely development of high density development around the key transport hubs, especially Romford, where values are approaching the top of the range we tested.

Table 6.4.1: Development Typology 1 (with prevailing CIL rate, no workspace)

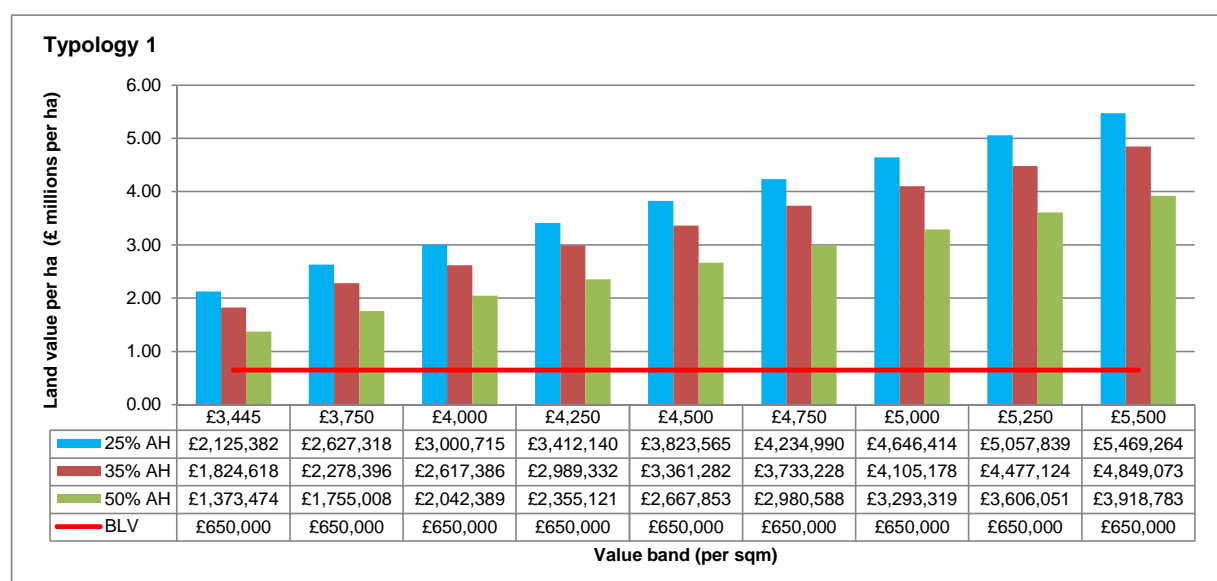


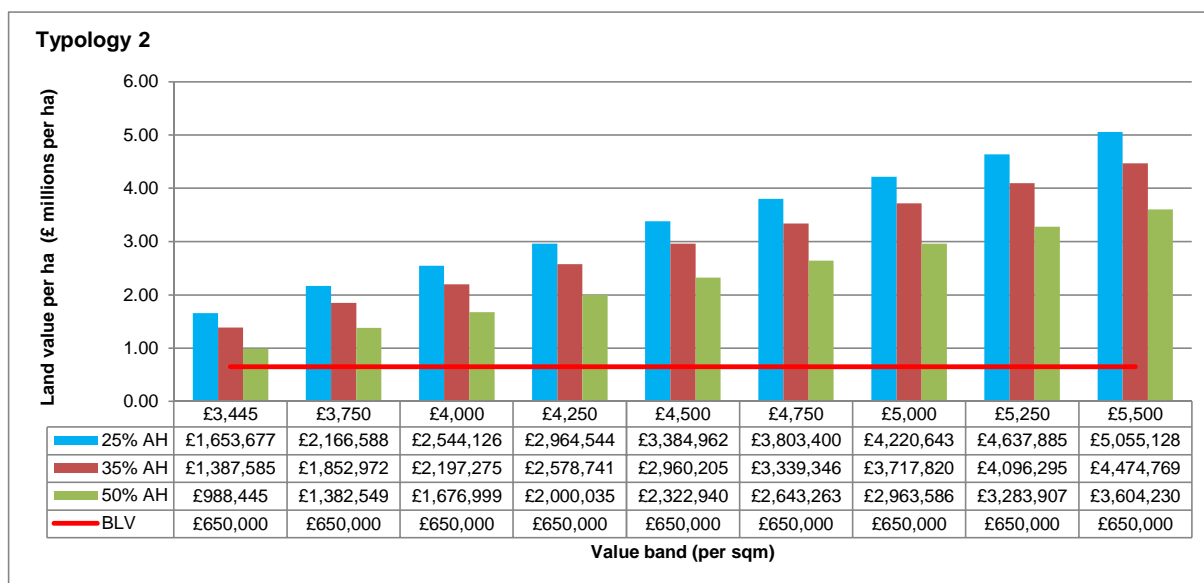
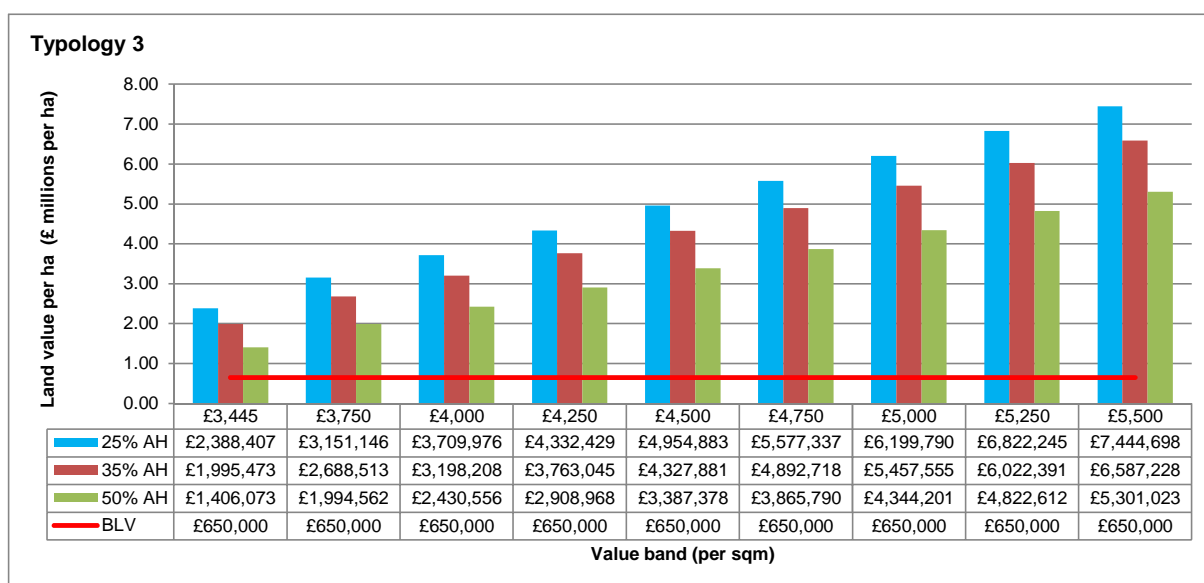
Table 6.4.2: Development Typology 2 (with prevailing CIL rate, no workspace)

Table 6.4.3: Development Typology 3 (with prevailing CIL rate, no workspace)


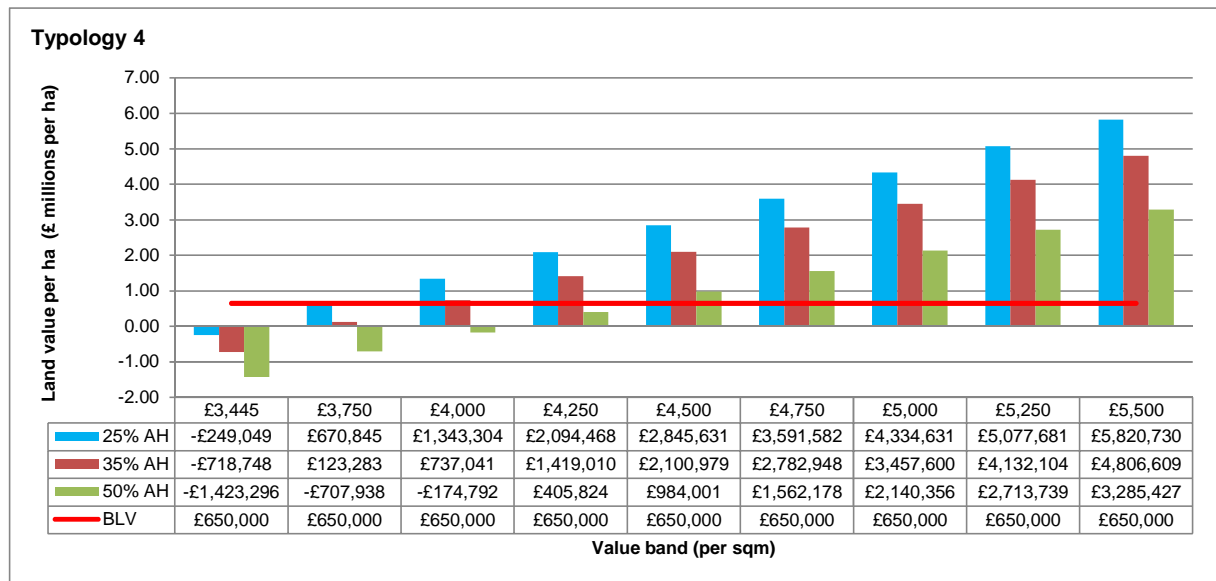
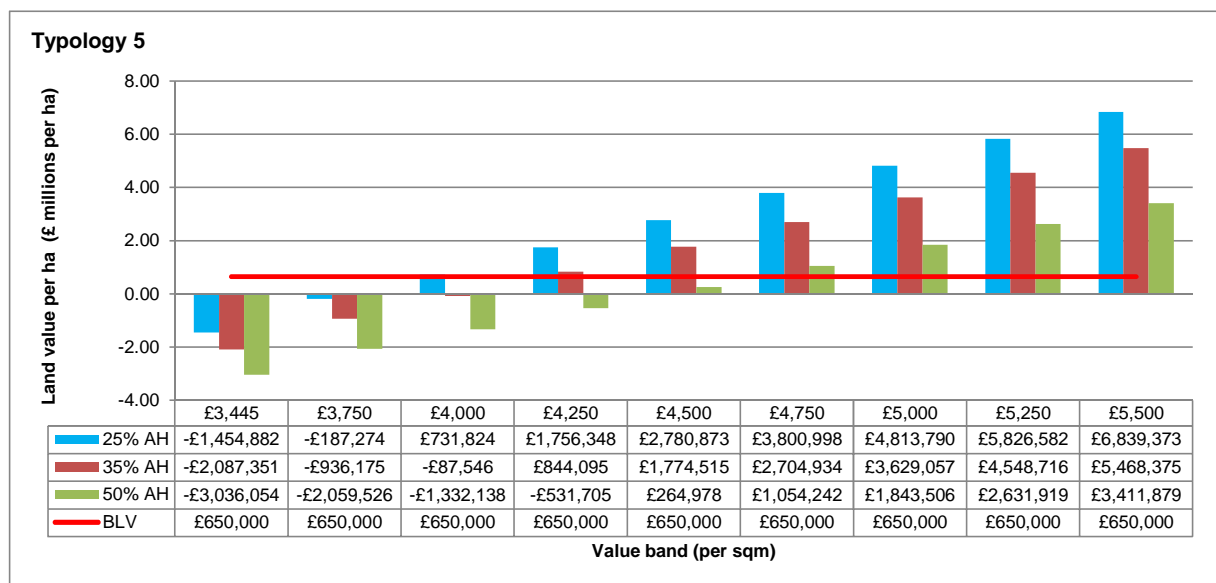
Table 6.4.4: Development Typology 4 (with prevailing CIL rate, no workspace)

Table 6.4.5: Development Typology 5 (with prevailing CIL rate, no workspace)


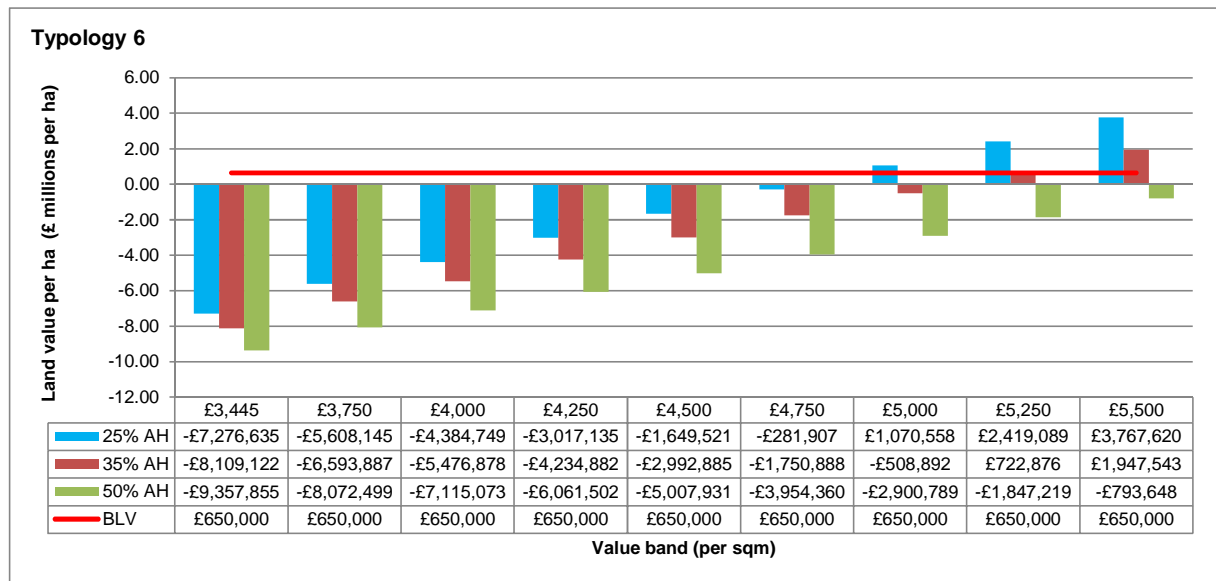
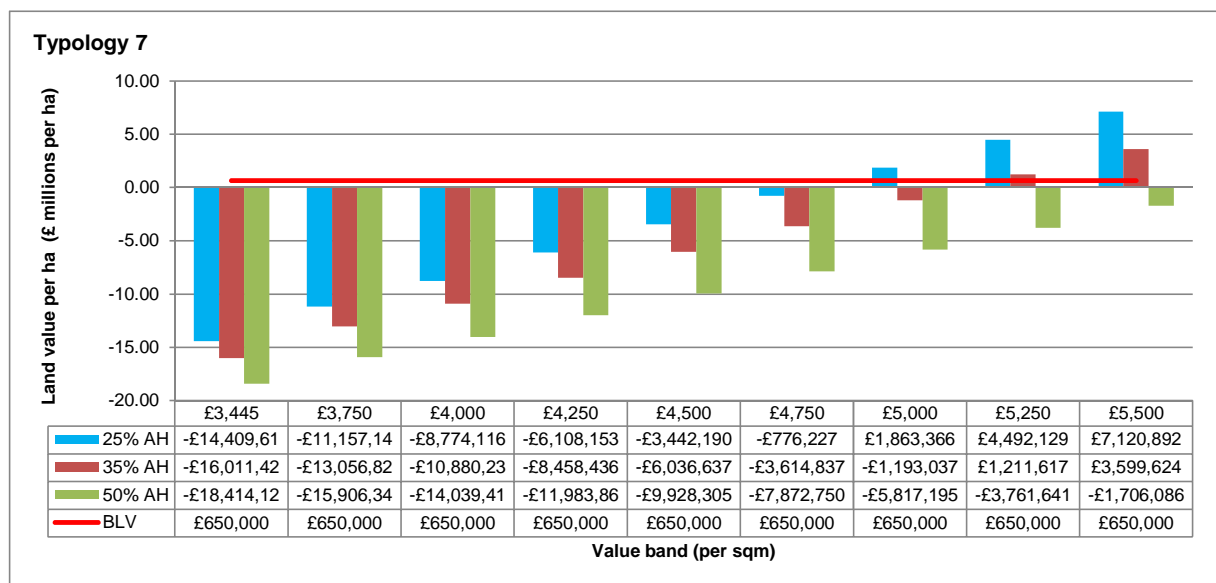
Table 6.4.6: Development Typology 6 (with prevailing CIL rate, no workspace)

Table 6.4.7: Development Typology 7 (with prevailing CIL rate, no workspace)


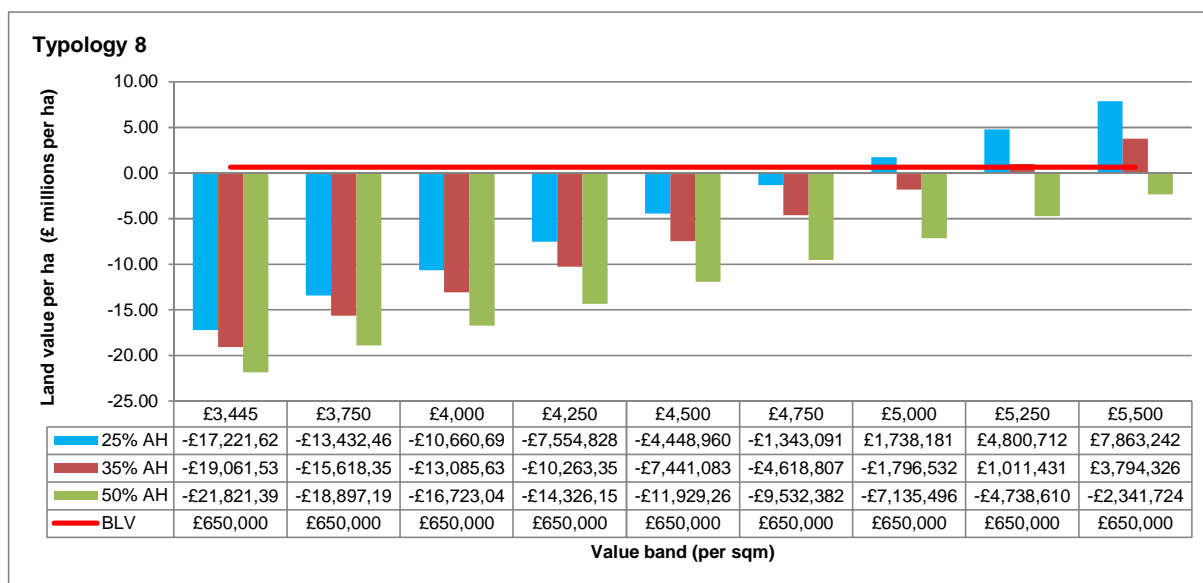
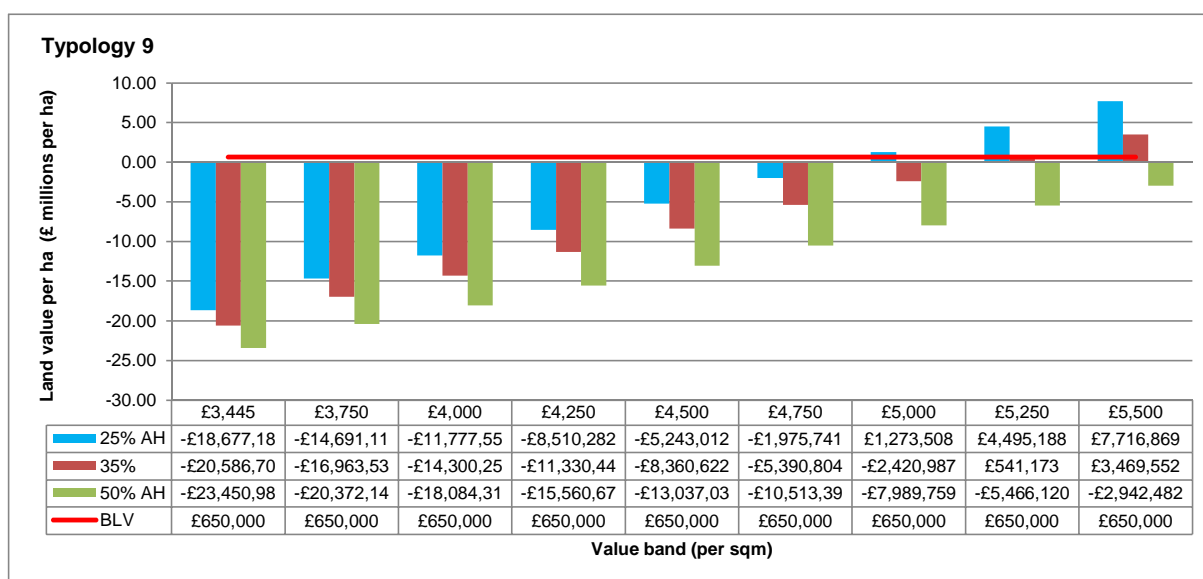
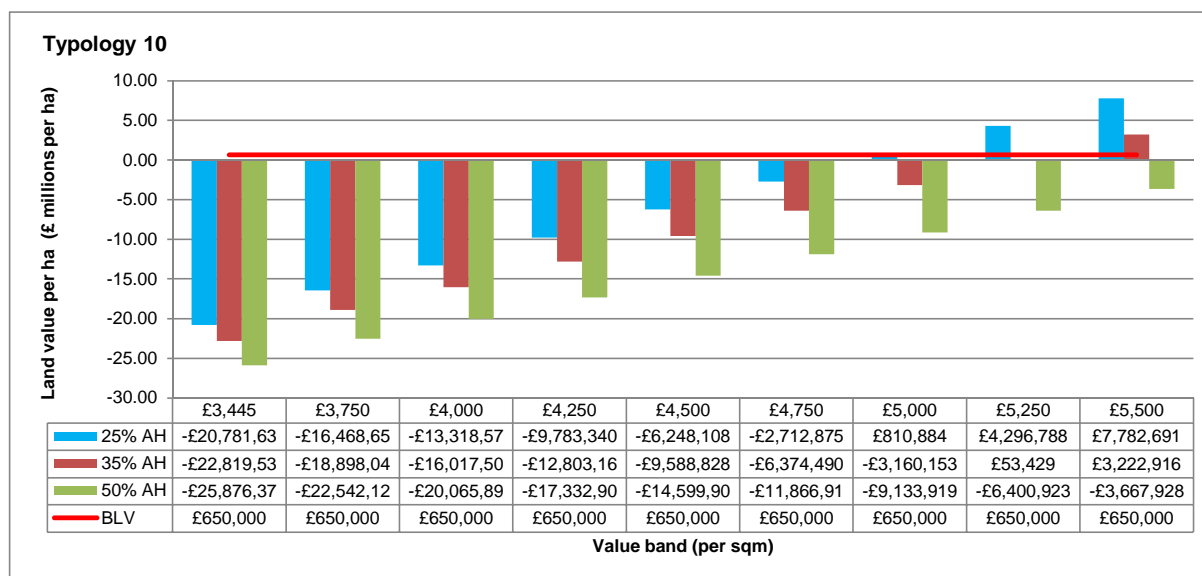
Table 6.4.8: Development Typology 8 (with prevailing CIL rate, no workspace)

Table 6.4.9: Development Typology 9 (with prevailing CIL rate, no workspace)


Table 6.4.10: Development Typology 10 (with prevailing CIL rate, no workspace)


Affordable housing – sensitivity analysis with growth over plan period

- 6.7 We have re-tested the ten development typologies factoring in growth in sales values of 5% per annum and cost inflation of 3% per annum, assuming that developments come forward in the last five years of the plan period. The results are summarised in figures 6.7.1 to 6.7.10. As a result of factoring in growth, there is a significant increase in residual values across all development typologies. This improvement is of sufficient magnitude to ensure that all of the higher density development typologies become viable and able to deliver at least 25% affordable housing from (present) value of £4,250 per square metre. We would again reiterate that we would only expect the higher density development to be located in the town centres, particularly Romford, where values are already at the higher end of the range. These are also the areas that are likely to benefit from higher growth rates in comparison to less well connected areas within the borough, due to the impact of Crossrail.

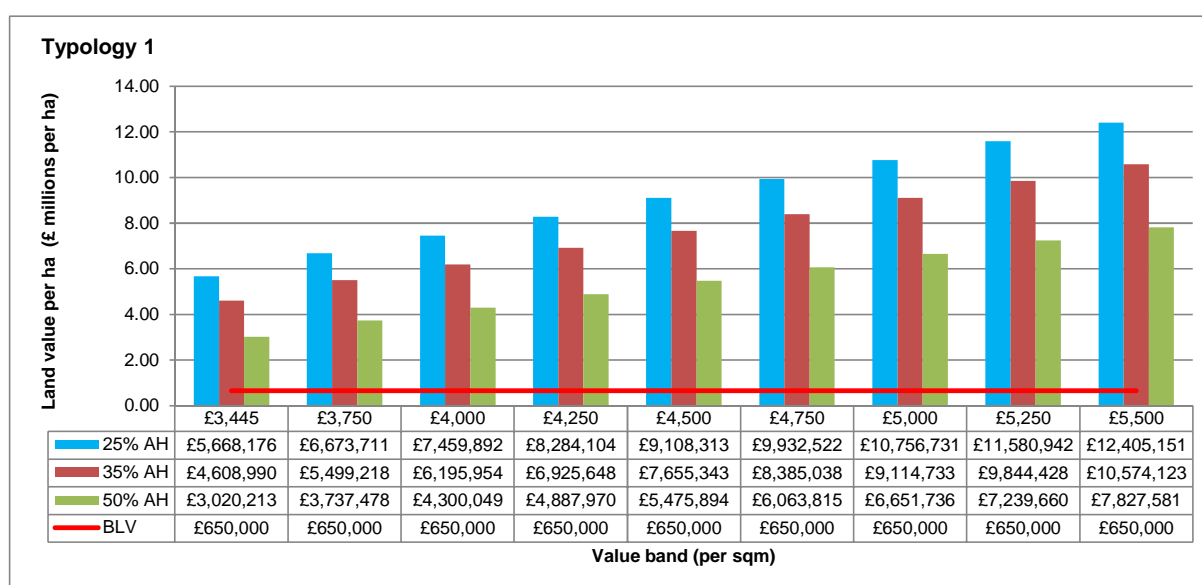
Table 6.7.1: Development Typology 1 (with prevailing CIL rate, no workspace, with growth)


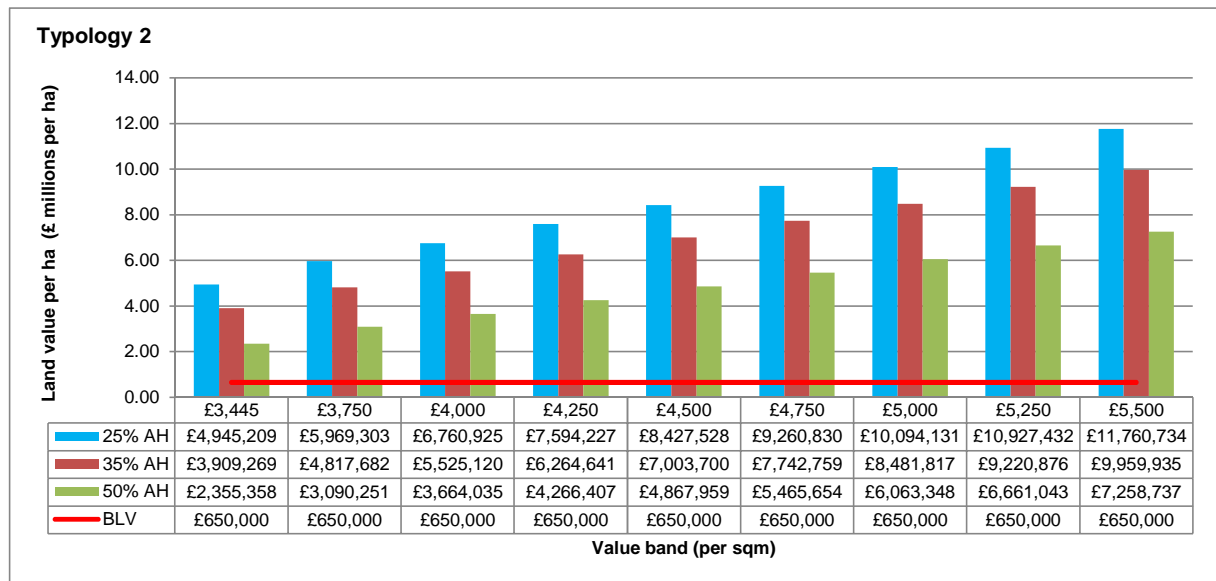
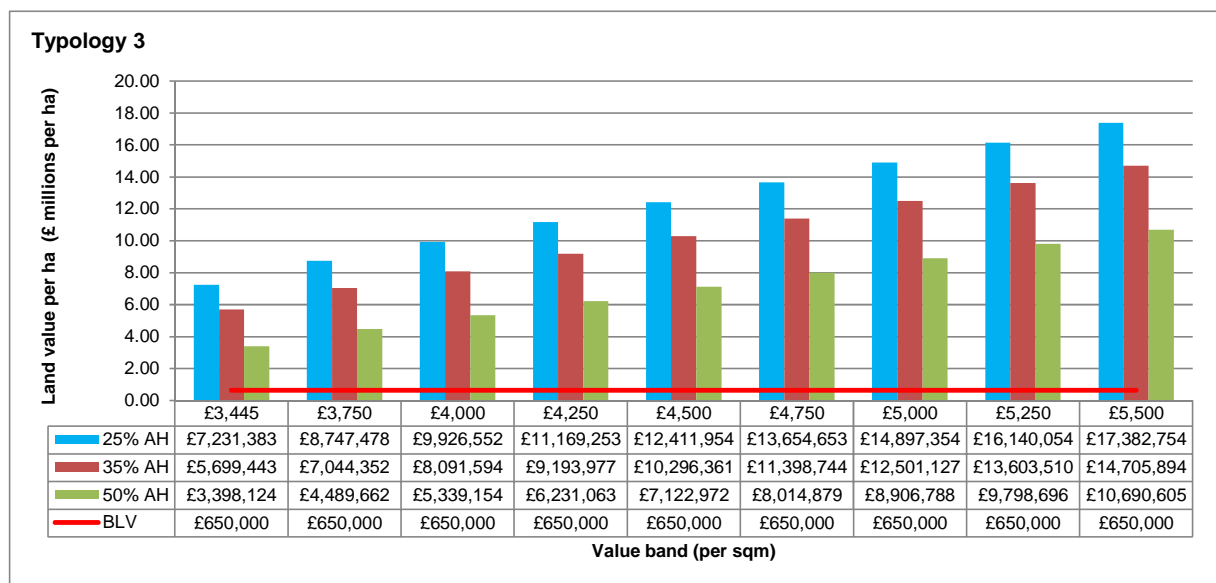
Table 6.7.2: Development Typology 2 (with prevailing CIL rate, no workspace, with growth)

Table 6.7.3: Development Typology 3 (with prevailing CIL rate, no workspace, with growth)


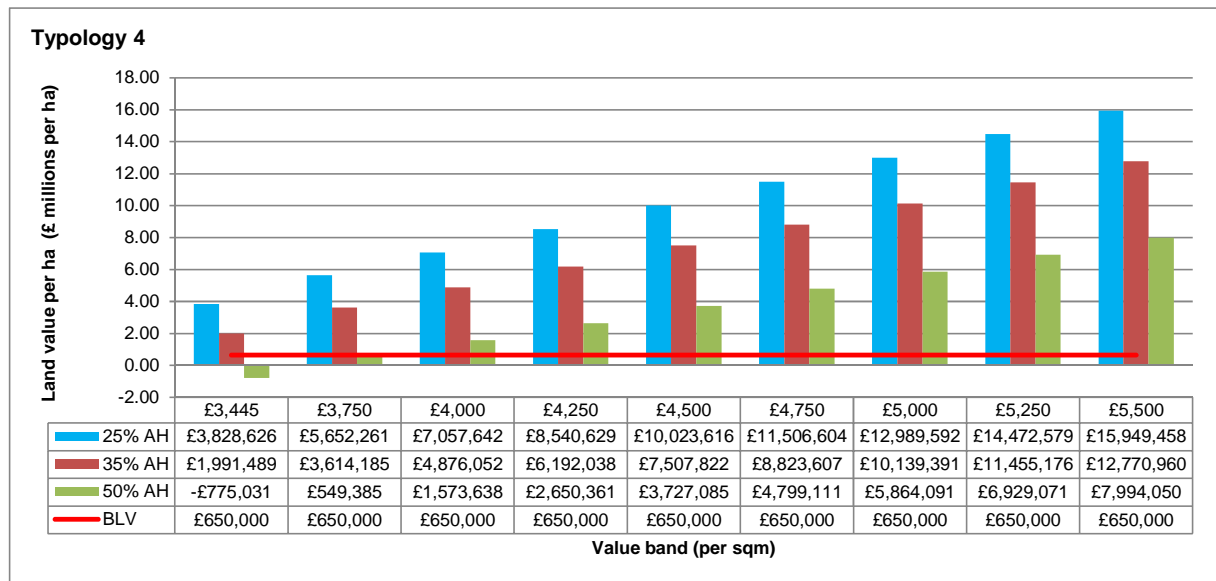
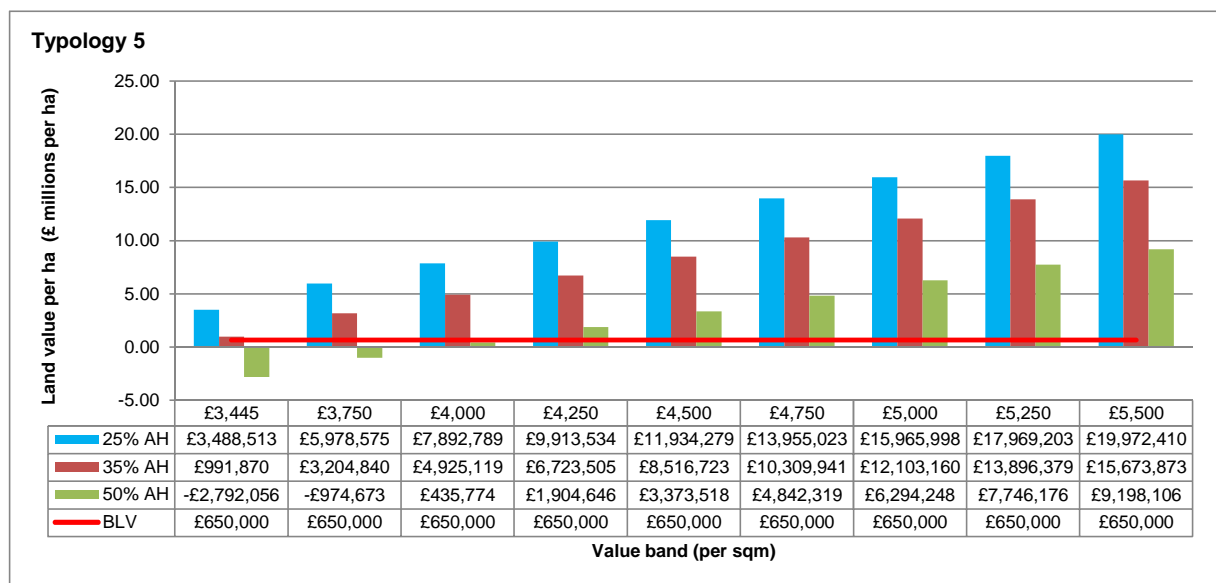
Table 6.7.4: Development Typology 4 (with prevailing CIL rate, no workspace, with growth)

Table 6.7.5: Development Typology 5 (with prevailing CIL rate, no workspace, with growth)


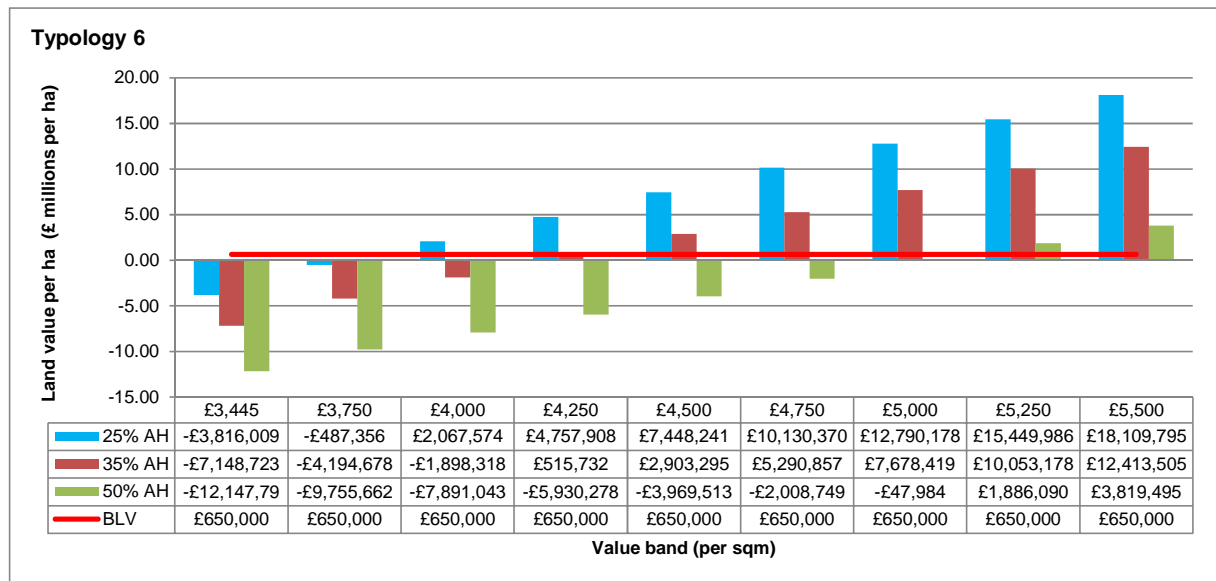
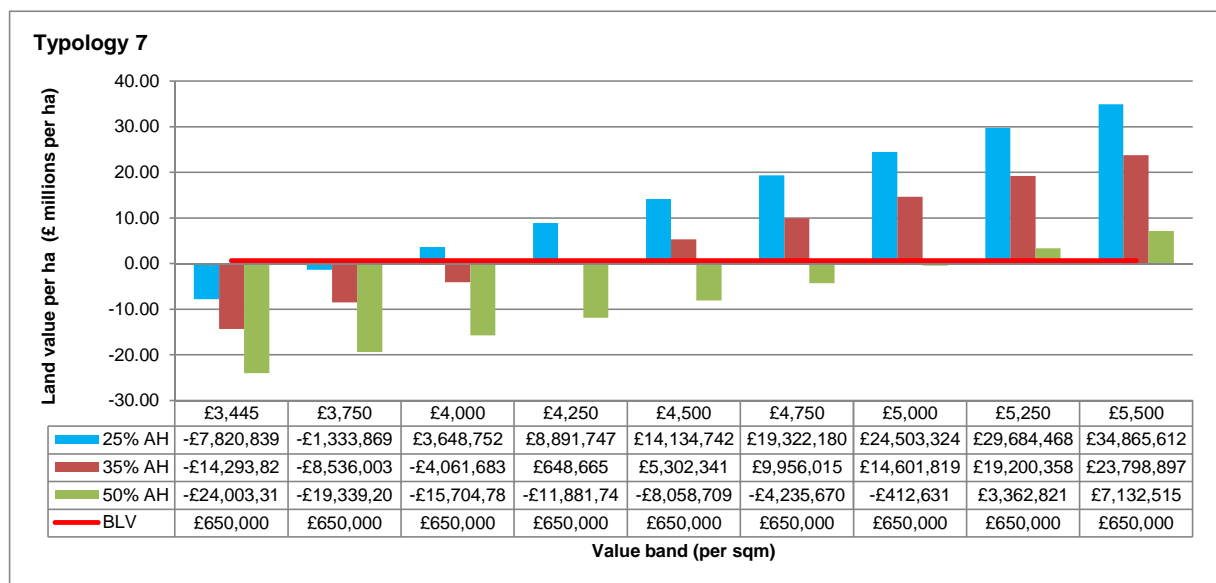
Table 6.7.6: Development Typology 6 (with prevailing CIL rate, no workspace, with growth)

Table 6.7.7: Development Typology 7 (with prevailing CIL rate, no workspace, with growth)


Table 6.7.8: Development Typology 8 (with prevailing CIL rate, no workspace, with growth)

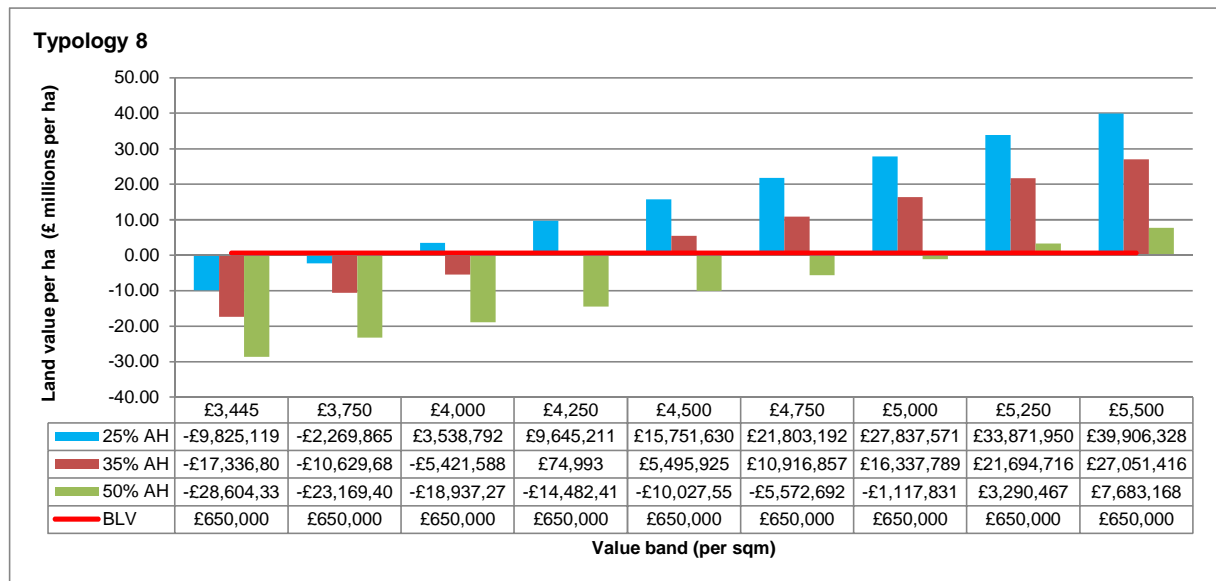


Table 6.7.9: Development Typology 9 (with prevailing CIL rate, no workspace, with growth)

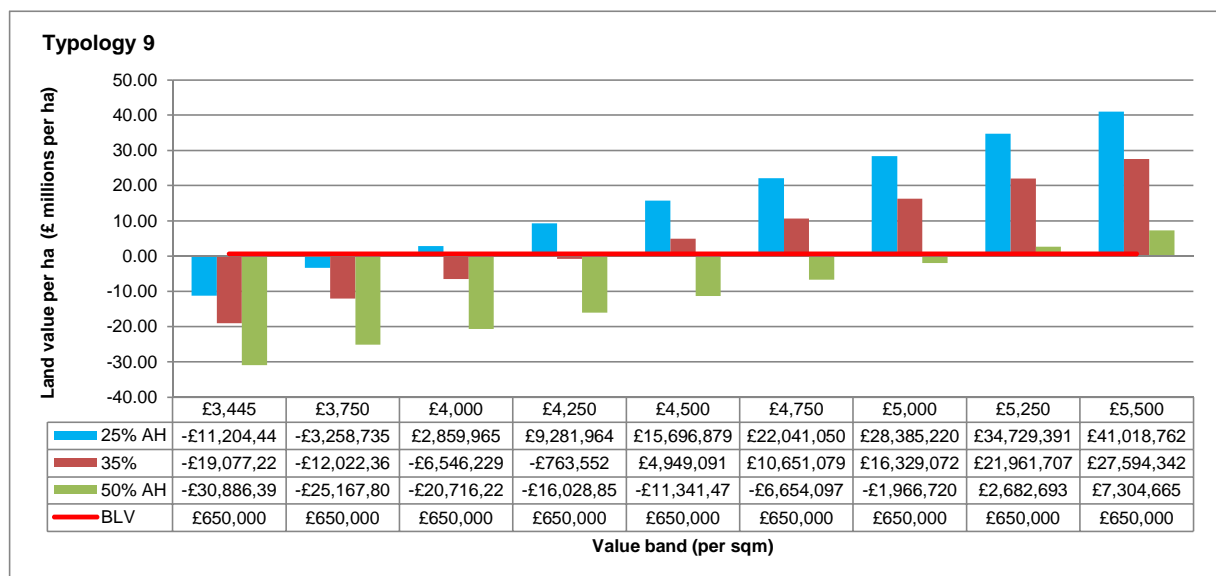
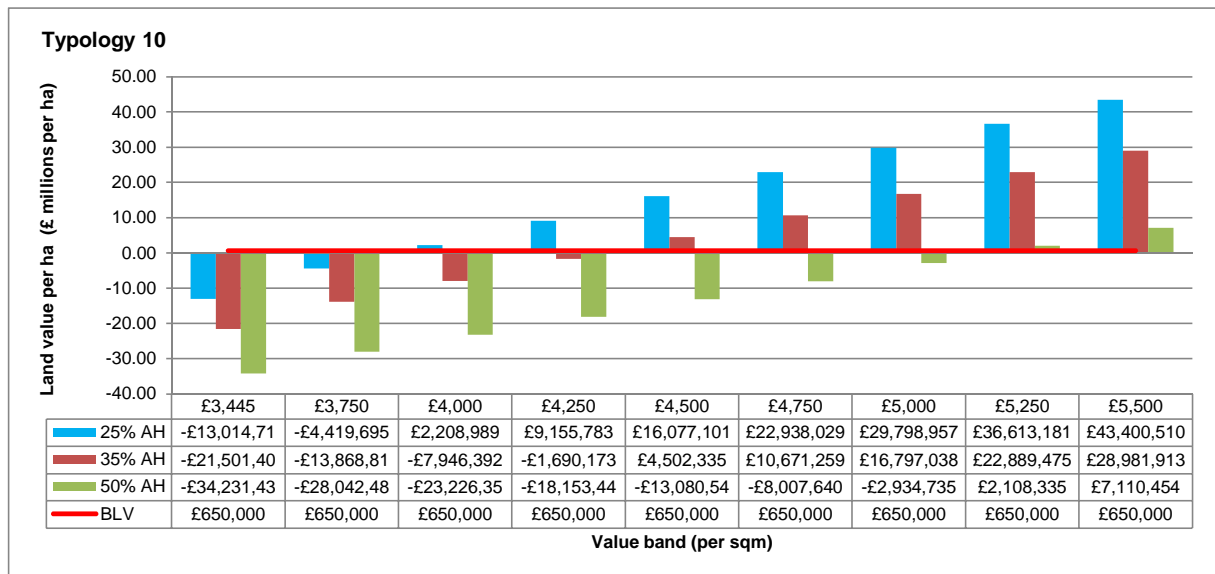


Table 6.7.10: Development Typology 10 (with prevailing CIL rate, no workspace, with growth)



Workspace requirement

- 6.8 Development typologies 6, 7, 8, 9 and 10 have been re-run to include an element of commercial floorspace. These are the higher density schemes which will be of sufficient scale to include a number of floors of commercial floorspace at lower levels, with residential above. As noted in Section 4, office rents in Romford are currently relatively low, which will be attractive to start-up businesses and similar occupiers. However, the capital values generated by the rental income do not fully cover the costs of development. As a consequence, the private housing needs to cross-subsidise the delivery of commercial floorspace as well as delivering affordable housing.
- 6.9 The appraisal results for development typologies 6, 7, 8, 9 and 10 are summarised in figures 6.9.1 to 6.9.5. The requirement to provide workspace within the developments has a significant impact on viability, with the residual land values for Typology 10 reducing by as much as £5 million in some circumstances. The requirement would therefore need to be balanced with the requirement for affordable housing; both policy requirements could only be accommodated if affordable housing is reduced below the emerging 35% policy target.

Figure 6.9.1: Development typology 6 (with prevailing CIL rates, workspace included)

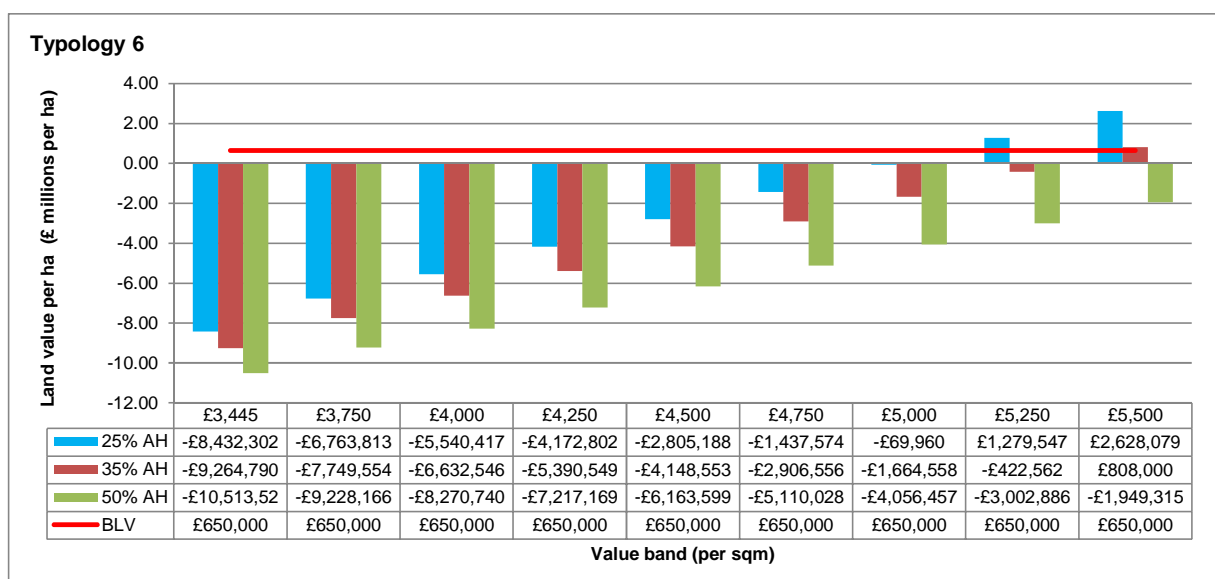


Figure 6.9.2: Development typology 7 (with prevailing CIL rates, workspace included)

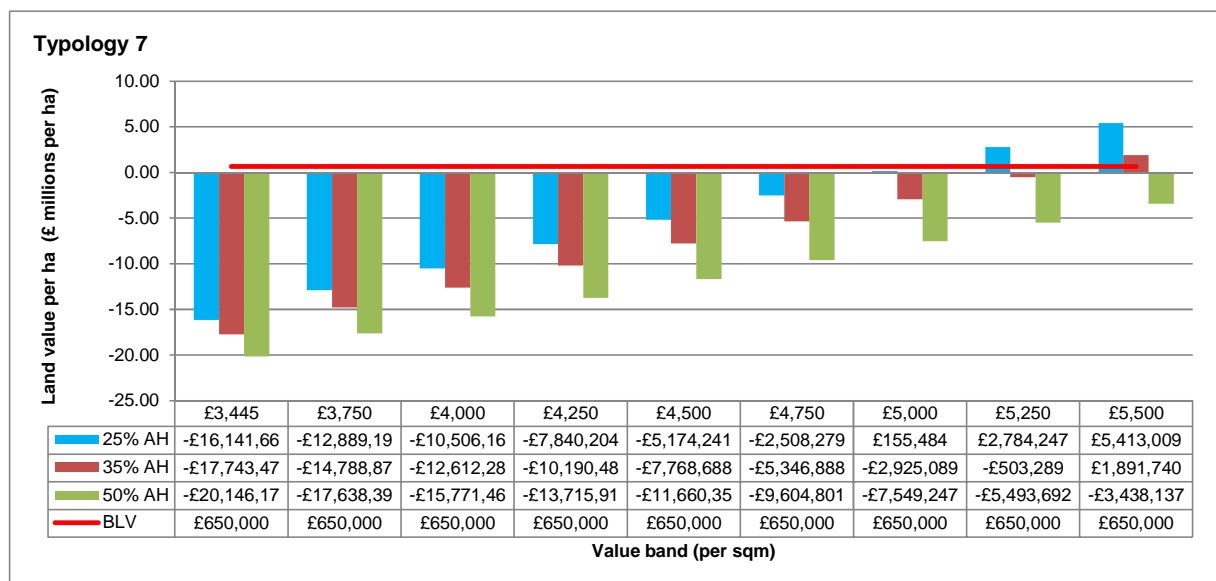


Figure 6.9.3: Development typology 8 (with prevailing CIL rates, workspace included)

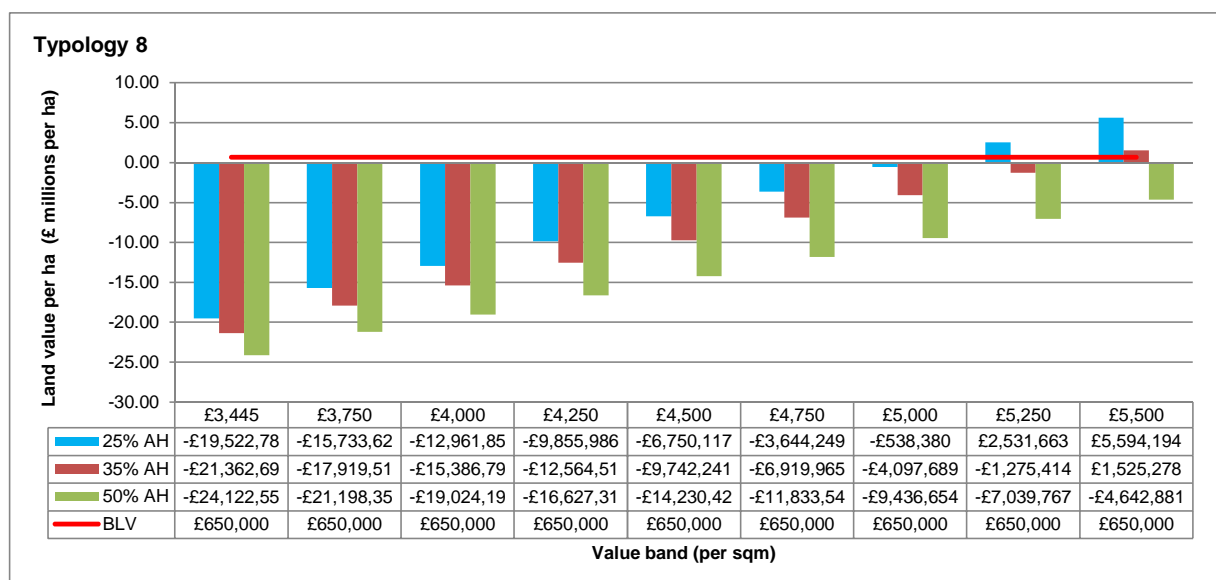


Figure 6.9.4: Development typology 9 (with prevailing CIL rates, workspace included)

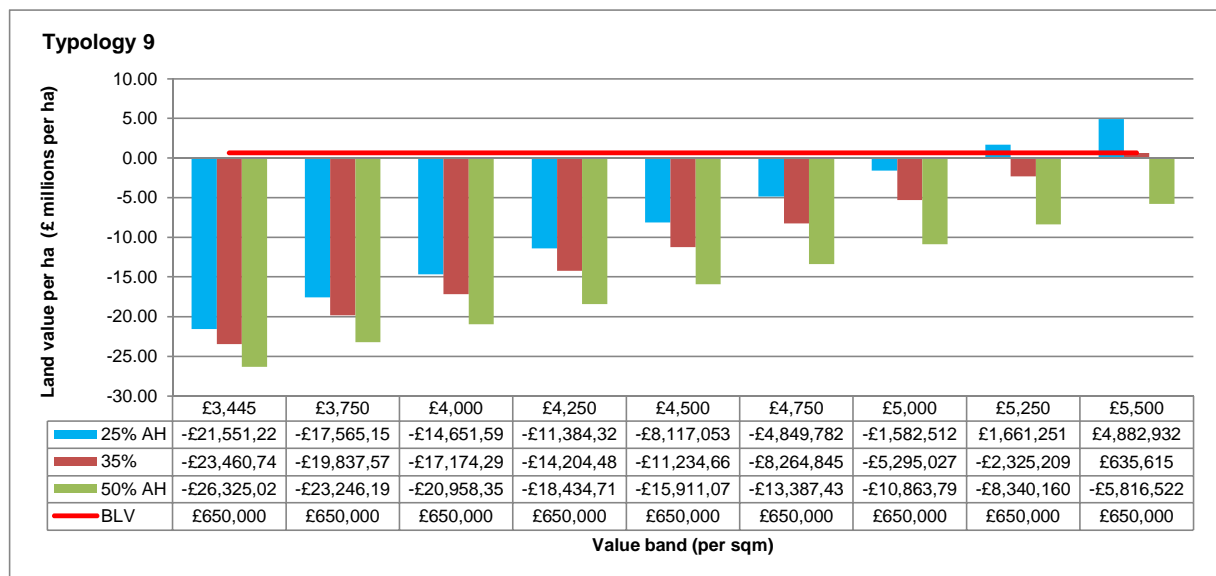
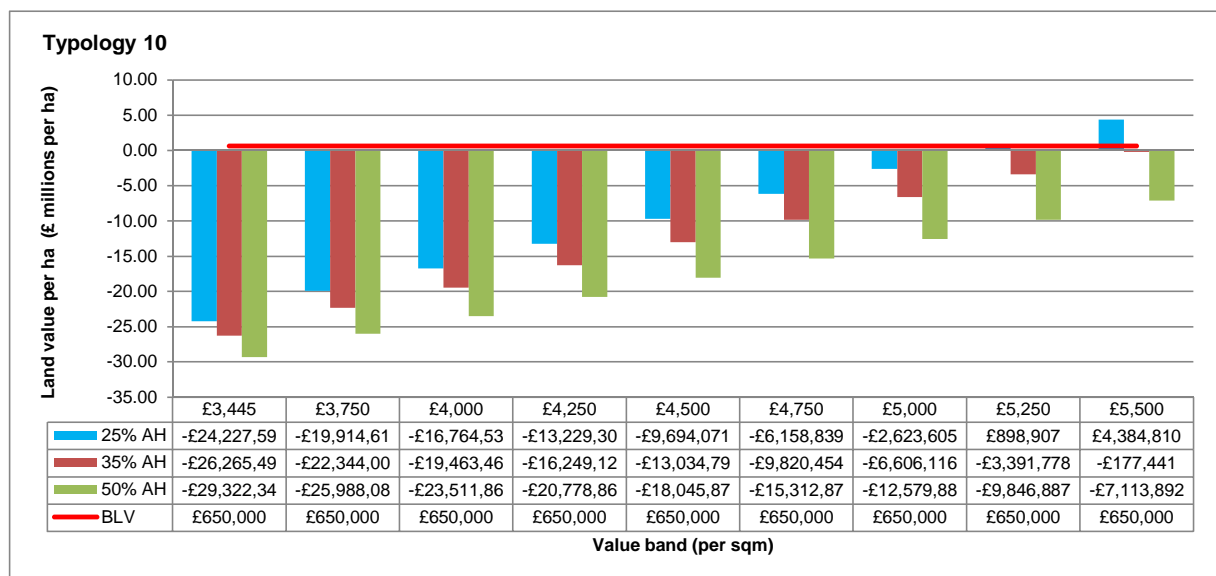


Figure 6.9.5: Development typology 10 (with prevailing CIL rates, workspace included)



Affordable workspace

- 6.10 Policy 24 requires that 20% of employment floorspace in a development be provided as 'affordable', as noted at Appendix 1. Although the policy does not clearly define what the Council regards as affordable, the policy requires that the space be made available on a flexible basis so that it is suitable to a range of enterprises.
- 6.11 For the purposes of our appraisals, we have assumed that the affordable workspace is let at a 20% discount to market rent. Market rent is £200 per square metre, which is at the lower end of the London range and therefore already accessible to a range of businesses. This accessibility is further improved through a discount of 20% which we have applied in perpetuity. In contrast, the policy clearly gives flexibility in terms of the length of time that the discount is to be applied, subject to a minimum period of five years.

- 6.12 For the purposes of illustrating the impact of the affordable workspace requirement, we have compiled the results of the appraisals for Typology 6 assuming (a) no workspace at all, (b) workspace included but at full market rent and (c) workspace included with 20% at discounted rents. The results are summarised in figures 6.12.1 and 6.12.2, the first assuming that the residential element provides 35% affordable housing, while the second assumes provision of 25% affordable housing. The results clearly show that, while the requirement for workspace itself has a significant impact on viability, the additional requirement for some of that workspace to be provided at discounted rents has only a very marginal additional impact (see the red and green bars in figures 6.12.1 and 6.12.2).

Figure 6.12.1: Workspace and 20% affordable workspace (35% affordable housing)

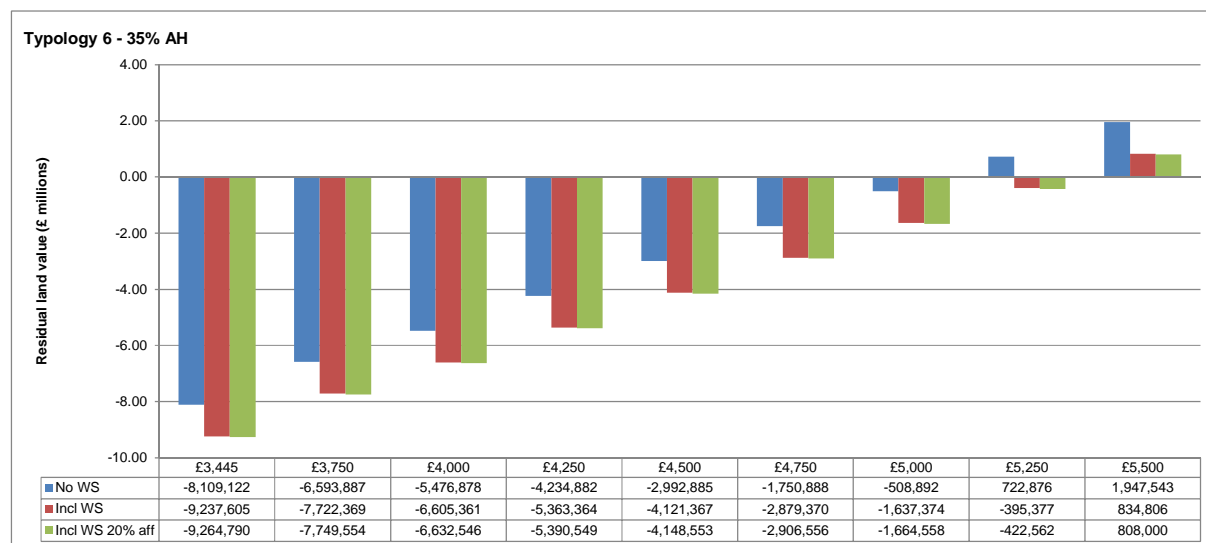
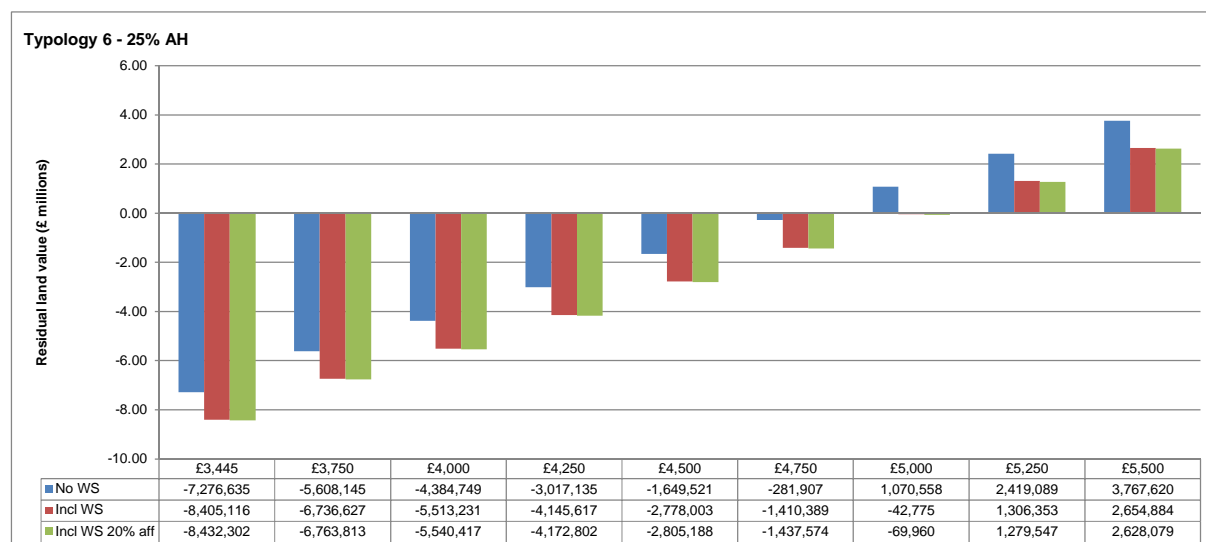


Figure 6.12.2: Workspace and 20% affordable workspace (25% affordable housing)



Alternative affordable housing tenure mix Scenario

- 6.13 The Outer North East London SHMA prepared to inform the Havering Local Plan identifies two different categories of affordable housing need, those who can afford affordable housing for rent with housing benefit support, and those who can afford affordable housing for rent without housing benefit support and therefore require intermediate housing. In Havering the results indicate that there is a need for 80% affordable and 20% intermediate products.
- 6.14 In light of this the Council has considered it appropriate to test this as an alternative scenario. For the purpose of the scenario test a detailed split has been identified based on average income levels in Havering, as follows:
- 80% rented housing:
 - Social rent: 72%
 - London affordable rent: 19%
 - Traditional affordable rent (at 80% of market rent): 9%
 - 20% intermediate housing:
 - Shared ownership: 65%
 - London Living Rent: 35%
- 6.15 Applying the weightings above to the rented element results in the blended rents shown in Table 6.15.1. Applying these blended rents results in a capital value of £866 per square metre (£80 per square foot). The capital value is significantly lower in comparison to affordable rent due to the high weighting towards social rent (72%).

Table 6.15.1: Blended weekly rents

Unit type	Net London Affordable Rent per week	Social rents per week	Traditional Affordable rent per week (80% of average market rents in Havering)
1 bed	£155.57	£89.62	£189.60
2 beds	£192.62	£101.96	£279.20
3 beds	£242.40	£114.30	£372.80
4+ beds	£312.77	£129.33	£461.60

Blended rents

	19%	72%	9%	
Unit type	Apportioned Net London Affordable Rent per week	Apportioned Social rents per week	Apportioned Traditional Affordable rent per week	Blended rent
1 bed	£29.56	£64.53	£17.06	£76.18
2 beds	£36.60	£73.41	£25.13	£98.32
3 beds	£46.06	£82.30	£33.55	£125.66
4+ beds	£59.43	£93.12	£41.54	£160.40

- 6.16 The value of intermediate housing is also reduced due to the inclusion of an element of housing provided as London Living Rent, which as a capital value of £2,043 per square metre (£190 per square foot). The results for the analysis above are set out in figures 6.16.1 to 6.16.10.
- 6.17 The change in tenure mix and in particular the weighting of the rented element towards social rent reduces the residual land values generated by our appraisals, although the results (in terms of which typologies are viable and in which areas) are broadly similar. The results do, however, indicate that there may need to be a trade-off between the revised tenure mix and the overall percentage of affordable housing on individual developments (i.e. a lower affordable housing percentage may be required in order to facilitate the revised tenure mix in some cases).

Figure 6.16.1: Development Typology 1 (with prevailing CIL rate, no workspace) 80% rented and 20% intermediate

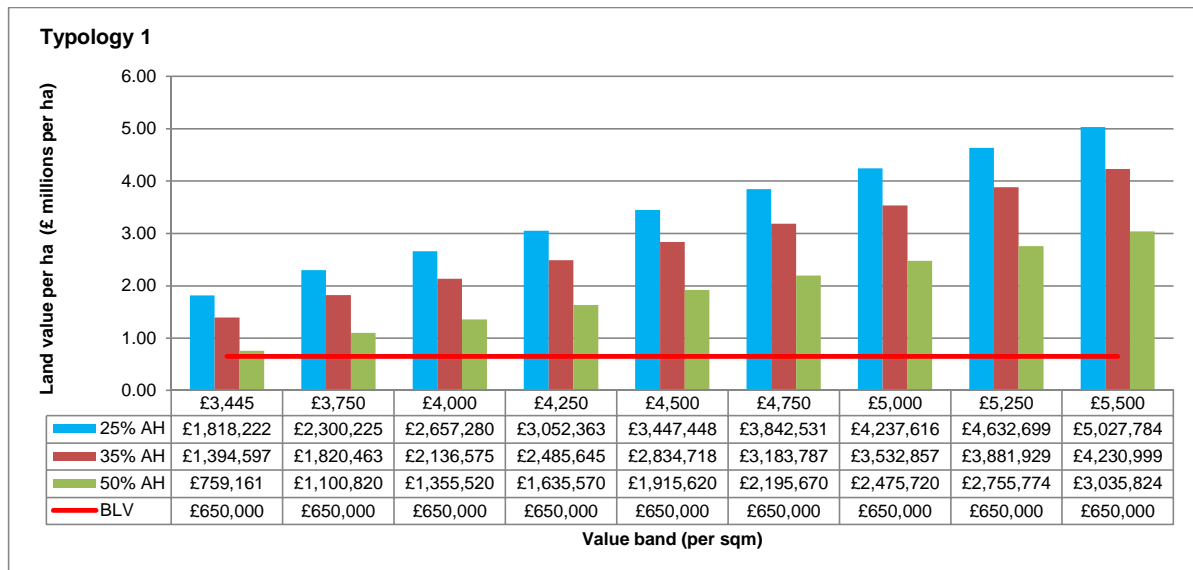


Figure 6.16.2: Development Typology 2 (with prevailing CIL rate, no workspace) 80% rented and 20% intermediate

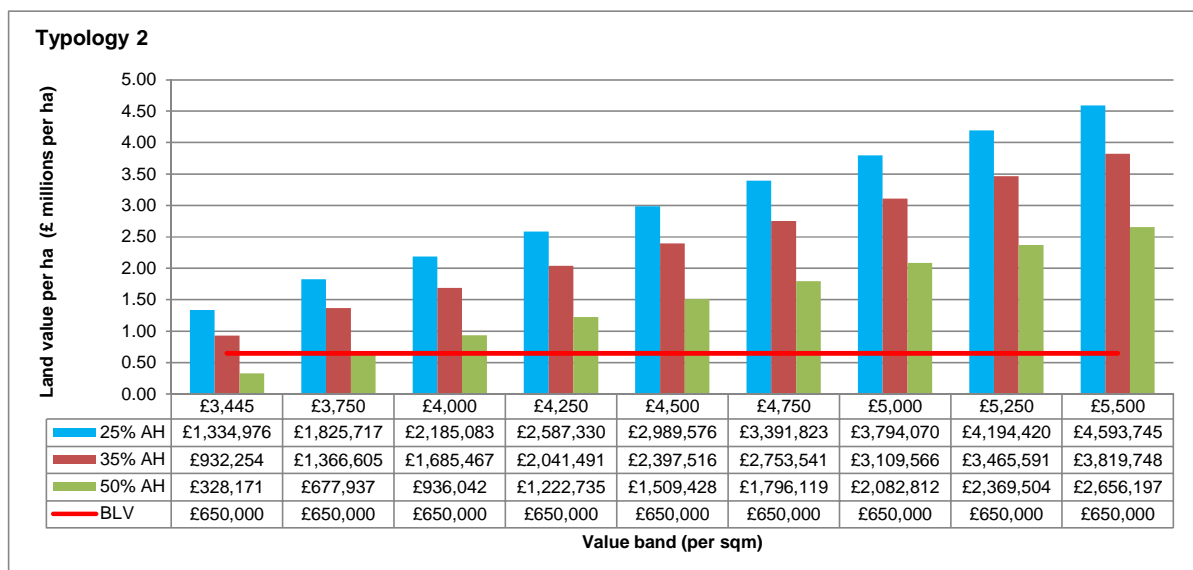


Figure 6.16.3: Development Typology 3 (with prevailing CIL rate, no workspace) 80% rented and 20% intermediate

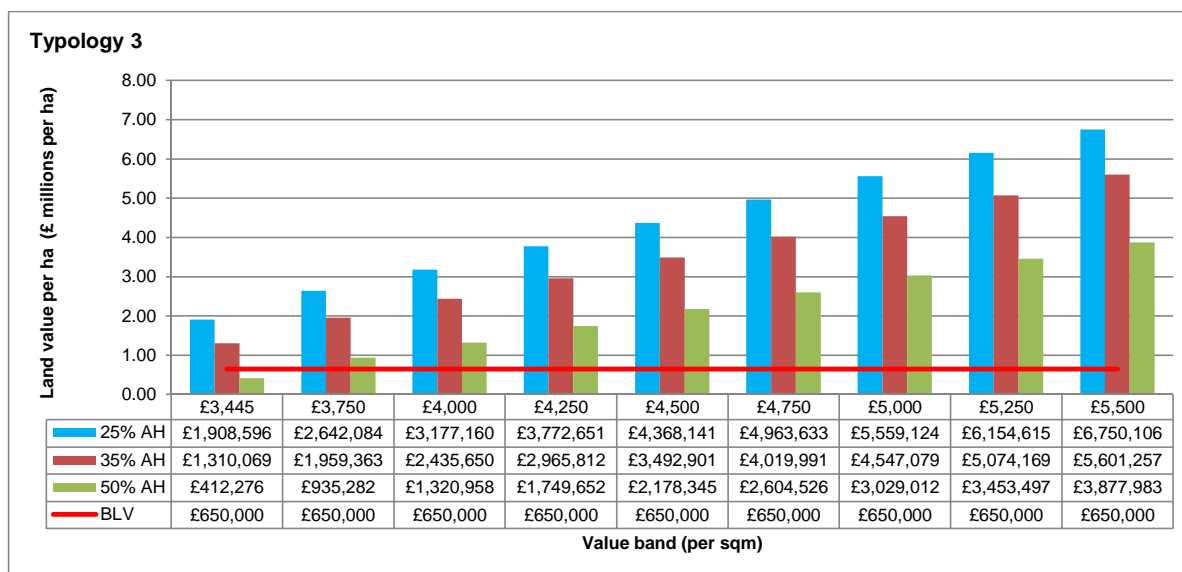


Figure 6.16.4: Development typology 4 (with prevailing CIL rate, no workspace) 80% rented and 20% intermediate

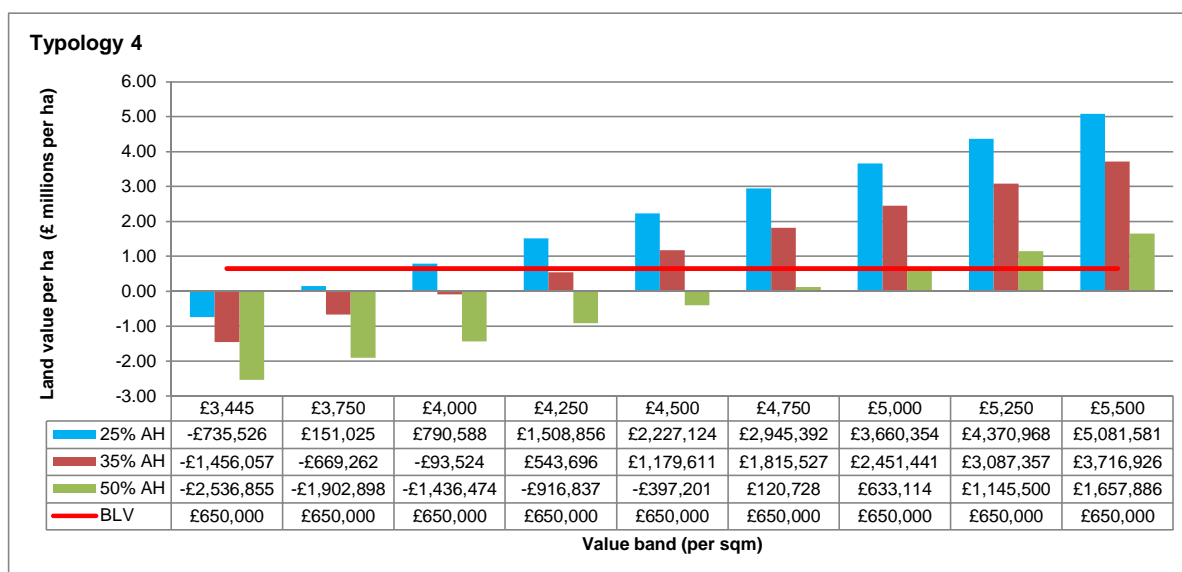


Figure 6.16.5: Development typology 5 (with prevailing CIL rate, no workspace) 80% rented and 20% intermediate

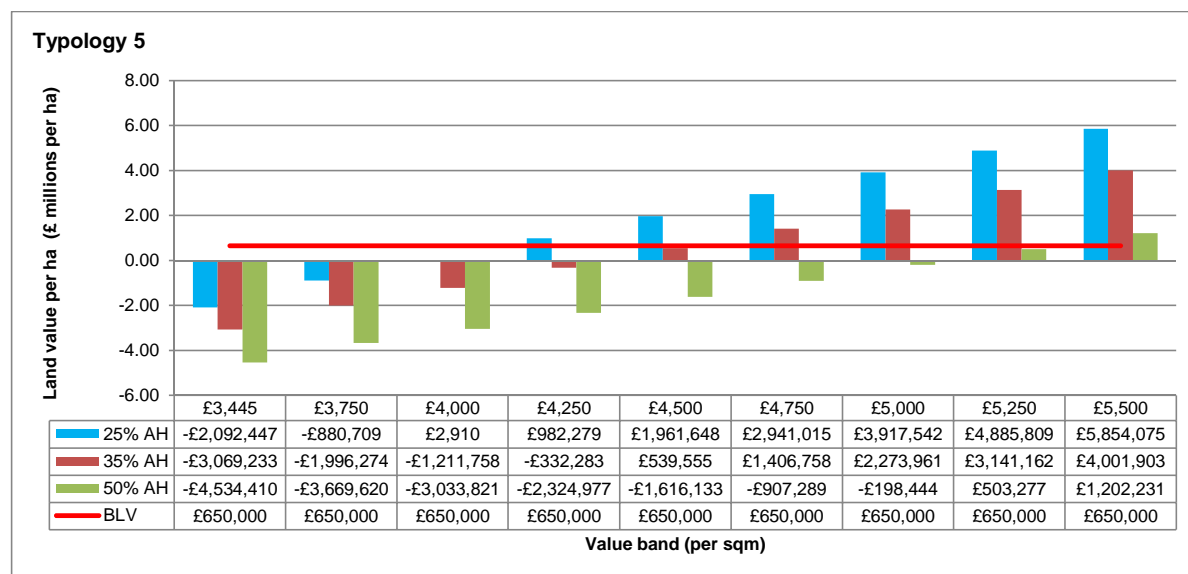


Figure 6.16.6: Development typology 6 (with prevailing CIL rate, no workspace) 80% rented and 20% intermediate

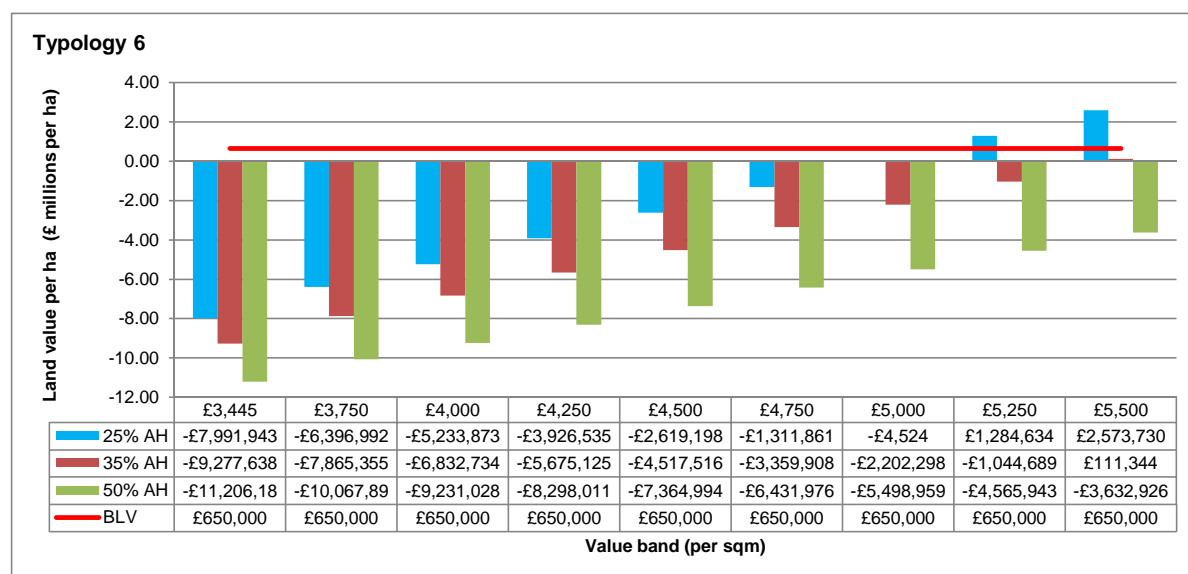


Figure 6.16.7: Development typology 7 (with prevailing CIL rate, no workspace) 80% rented and 20% intermediate

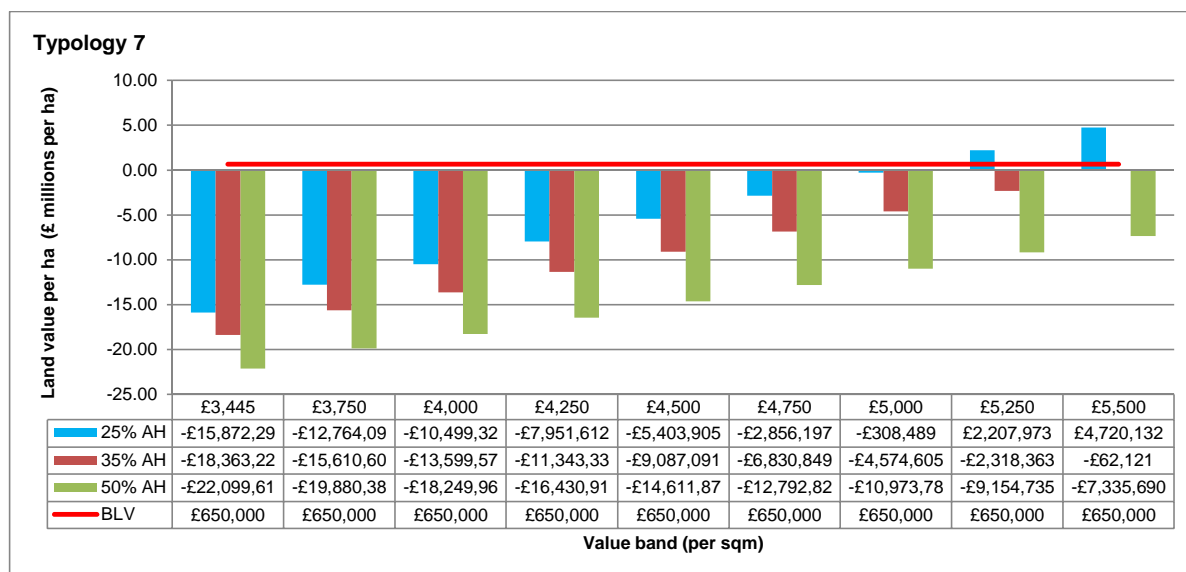


Figure 6.16.8: Development typology 8 (with prevailing CIL rate, no workspace) 80% rented and 20% intermediate

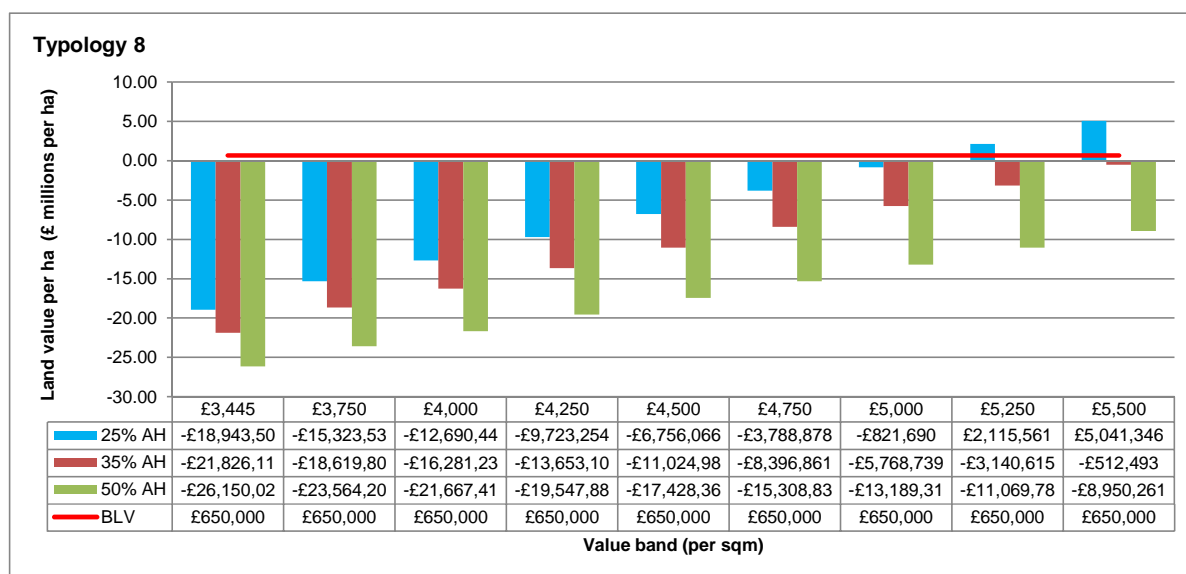


Figure 6.16.9: Development typology 9 (with prevailing CIL rate, no workspace) 80% rented and 20% intermediate

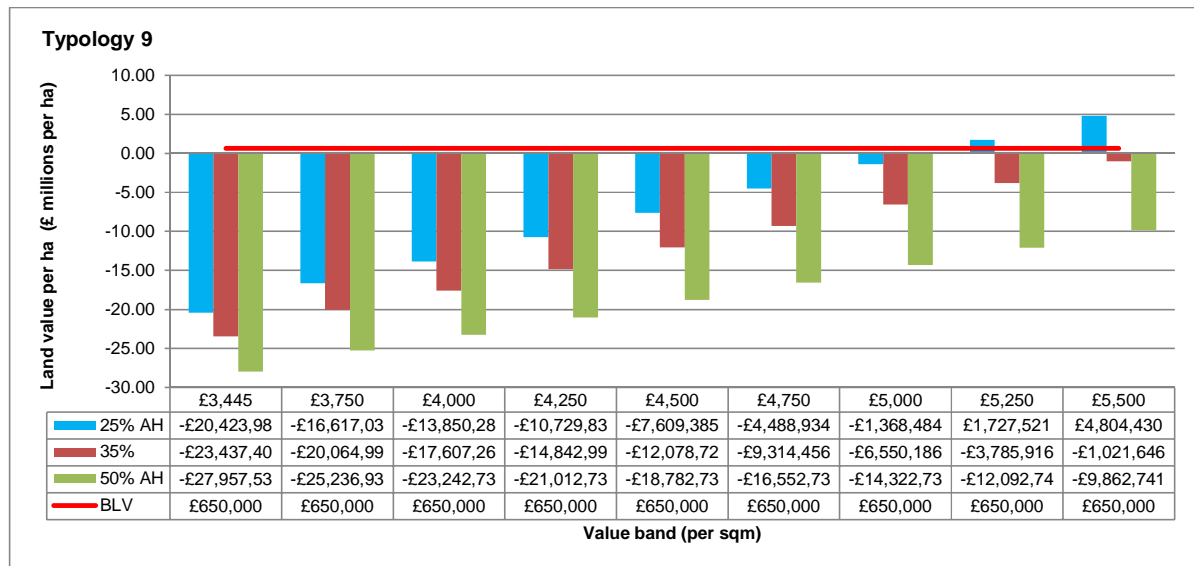
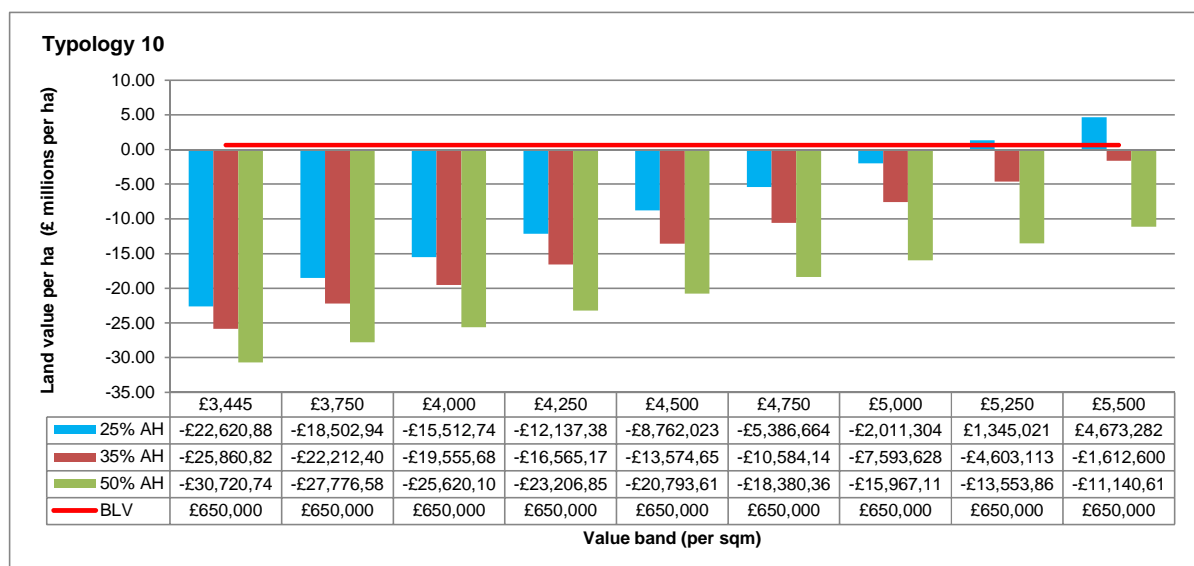


Figure 6.16.10: Development typology 10 (with prevailing CIL rate, no workspace) 80% rented and 20% intermediate



Changes to CIL rates

- 6.18 All the analyses so far incorporate the CIL rates as proposed in the Council's PDCS (i.e. £50 per square metre south of the A1306 and £70 per square metre north of the A1306) alongside Mayoral CIL and Crossrail Section 106 (the latter applying only to retail). We have tested the impact of increasing the CIL rates from £50 and £70 per square metre by £20 per square metre increments (i.e. £70 and £90 per square metre, and £90 and £110 per square metre (see Figure 6.13.1 and Figure 6.13.2 showing the results with 35% and 25% affordable housing respectively). The results of this analysis indicate that a £20 per square metre increase in the rates proposed in the PDCS would not have a significant impact on the residual land value generated. For example, in an area with sales values of £4,000 per square metre, the residual land value assuming the rates of CIL in the PDCS is £3,198,208. If the CIL rates are increased by £20 per square metre, the residual land value falls to £3,143,066, a change of just 1.7%. If the CIL rate is increase by £40 per square metre above the PDCS rates, the residual land value falls slightly further to £3,087,925, or 3.4% below the residual value incorporating the PDCS CIL rates.

Figure 6.13.1: PDCS CIL rates and increased CIL rates (+£20 and +£40 per square metre) with 35% affordable housing

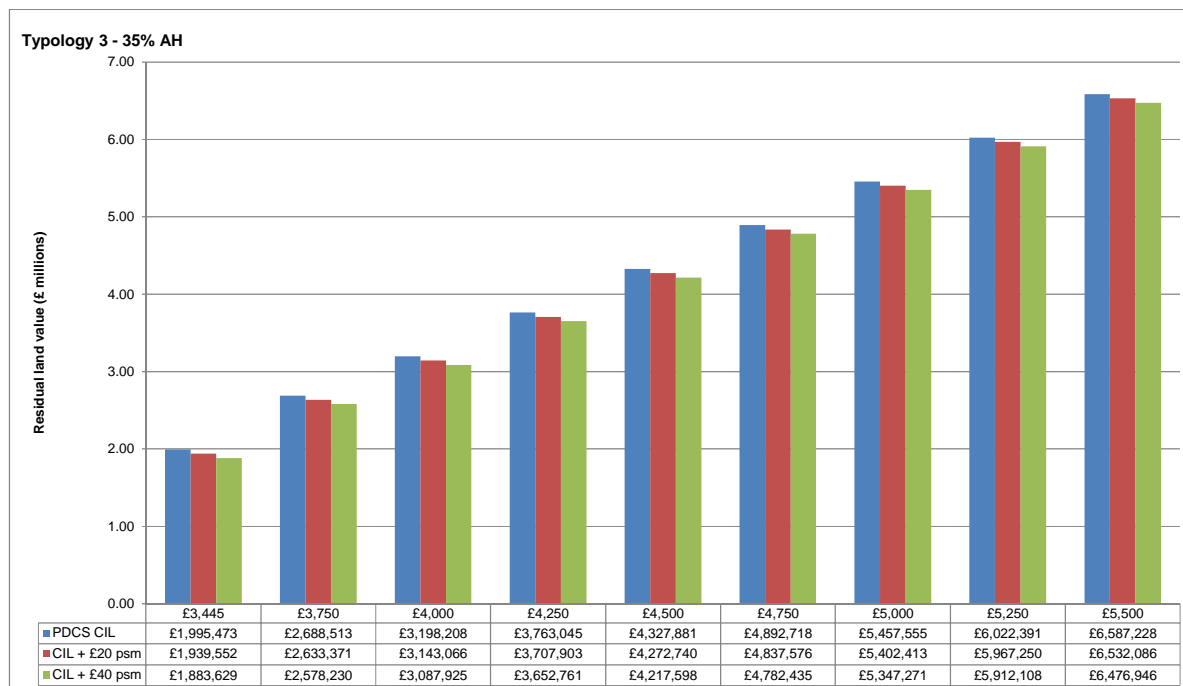
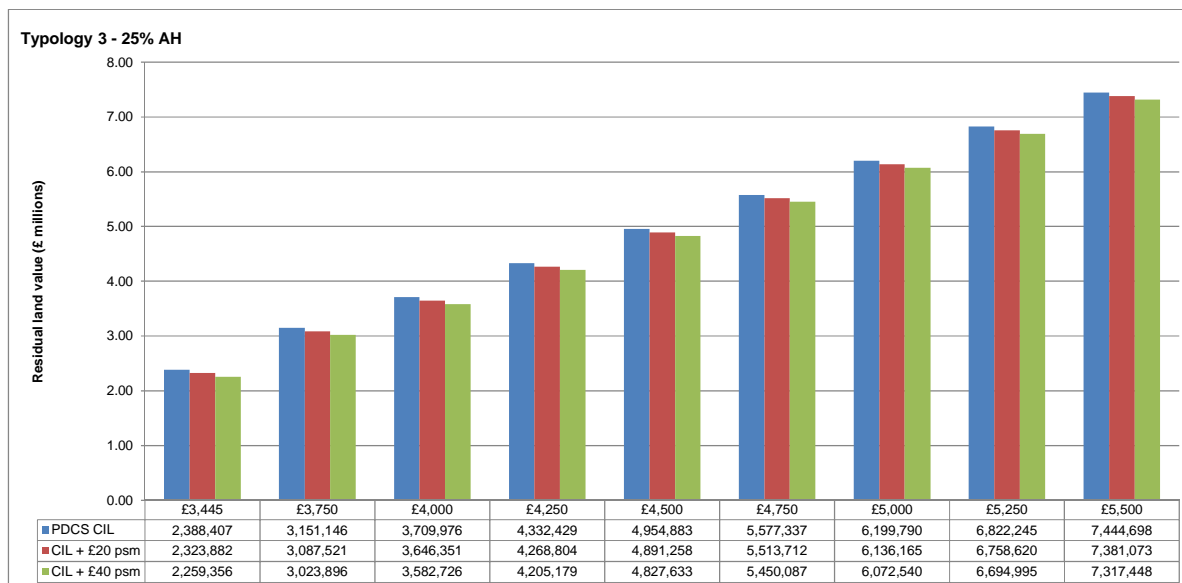


Figure 6.13.2: PDCS CIL rates and increased CIL rates (+£20 and +£40 per square metre) with 25% affordable housing



7 Conclusions and recommendations

- 7.1 The NPPF states that the cumulative impact of local planning authority standards and policies “*should not put implementation of the plan at serious risk, and should facilitate development throughout the economic cycle*”. This report and its supporting appendices test this proposition in the London Borough of Havering.
- 7.2 We have tested the impact of the Council's emerging affordable housing target of 35% (as well as 25% and 50% affordable housing) and other requirements (together with Mayoral CIL and – where relevant – Crossrail Section 106) as a base position. The results generated by this base position indicate that the Council's flexible approach to affordable housing delivery (i.e. subject to individual site circumstances and scheme viability) will ensure that most developments can come forward over the economic cycle.
- 7.3 In considering the outputs of the appraisals, it is important to recognise that some developments will be unviable *regardless* of the Council's requirements. In these cases, the value of the existing building will be higher than a redevelopment opportunity over the medium term. However, this situation should not be taken as an indication of the viability (or otherwise) of the Council's policies and requirements.
- 7.4 The results of our appraisals indicate that the Council's emerging target of 35% affordable housing should be deliverable on some sites that are expected to come forward over the life of the Development Plan. However, the type of development is a critical determining factor, with higher density flatted developments being unviable in all but the higher value parts of the borough, typically around key transport hubs. However, in lower value areas, high density developments are unlikely to provide a good physical fit with the existing townscape in any event and therefore unlikely to be a suitable design solution in most cases. In lower value areas, housing schemes, or mixed schemes of flats and houses, are shown to be viable incorporating the Council's emerging affordable housing target of 35%
- 7.5 The change in tenure mix from 70% affordable rent and 30% intermediate to 80% rented and 20% intermediate - and in particular the weighting of the rented element towards social rent - reduces the residual land values generated by our appraisals. However, the the results (in terms of which typologies are viable and in which areas) are broadly similar. The results do, however, indicate that an 80%/20% policy requirement would have required a trade-off between higher levels of rented housing and the overall percentage of affordable housing on individual developments (i.e. a lower affordable housing percentage may be required in order to facilitate the revised tenure mix in some cases).
- 7.6 The Council's requirement for provision of employment floorspace in high density developments requires cross-subsidy from the private residential element of the development, as the capital value of the office rents are insufficient to cover the development costs. As a consequence, workspace can only be brought forward in lower value scenarios if the level of affordable housing is reduced below the 35% policy requirement. However, the impact of the Council's requirement for an element of affordable workspace (assuming 20% of floorspace is let at rents discounted by 20%) has a marginal impact in comparison to the wider requirement for workspace.
- 7.7 It is critical that developers do not over-pay for sites such that the value generated by developments is paid to the landowner, rather than being used to provide affordable housing. The Council should work closely with developers to ensure that landowners' expectations of land value are appropriately framed by the local policy context. There may be instances when viability issues emerge on individual developments, even when the land has been purchased at an appropriate price (e.g. due to extensive decontamination requirements). In these cases, some flexibility may be required subject to submission of a robust site-specific viability assessment.
- 7.8 Our appraisals do not consider the potential impact that grant funding might have on scheme viability. This is a realistic assumption for the short term. Given the constraints on public spending and the significant drop in funding during the current spending round. Levels of grant funding may change in the future and an increase in subsidy would clearly improve viability. The Council should therefore monitor the situation closely over the medium term, clearly if grant becomes available, then scheme viability will improve.

-
- 7.9 The Council's PDCS indicates the Council's intention to adopt CIL rates of between £50 and £70 per square metre for residential development. These rates are not dissimilar from those adopted by neighbouring boroughs. However, our appraisals adopting higher rates of CIL (+£20 and +£40 per square metre on both rates) show only marginal movements in residual land values which equate to 1.7% and 3.4% of the base residual land value. Consequently, there may be some scope for the Council to consider upwards adjustments to their CIL rates, but this should be explored further with the Council's CIL advisors.
- 7.10 The Council needs to strike a balance between achieving its aim of meeting needs for affordable housing with raising funds for infrastructure, and ensuring that developments generate acceptable returns to willing landowners and willing developers. This study demonstrates that the Council's flexible approach to applying its affordable housing requirements ensures that these objectives are balanced appropriately.

Appendix 1 - Policy analysis

The table on the following pages identifies all policies that are considered to potentially impact on development costs. Policies that are not listed are deemed not to have any potential impact on viability.

Policy Name	Policy Text / Summary	Comments and analysis of policy costs
Romford Strategic Development Area	<ul style="list-style-type: none"> Require developers seeking to develop land adjacent to the ring road to address its perception as a barrier for active travel including opportunities for its greening, and the impact such development will have on the highway network; Require developers to improve active travel links between Romford Station, Waterloo Road and Bridge Close; and Require proposals for development along the River Rom to improve the quality and setting of the river and to provide continuous, safe and accessible links alongside the river to promote active travel and improve north south connectivity. <p>Development proposals that generate a primary school child yield equivalent to one additional form of entry will be expected to provide adequate space on site for the provision of a school. The Council will only support proposals without this provision where it can be robustly demonstrated that existing or planned education provision can cater for the additional demand for school places.</p> <p>The Council will support proposals that:</p> <p>xxii. Create active streets with strong and well-articulated frontages to all existing and proposed pedestrian routes, particularly at ground floor level, avoiding blank facades and exposed service areas;</p> <p>xxiii. Incorporate generous floor to ceiling heights at ground floor level to provide for flexibility and adaptability over time and respond to the needs of different retailers;</p> <p>xxiv. Positively respond to the sensitive nature and urban fabric within the conservation area, views of St. Edward the Confessor Church and the historic crossroads where South Street, the High Street and the Market Place meet;</p> <p>xxv. Make a positive contribution towards public realm improvements in the Market Place</p> <p>xxvi. Demonstrate how the proposed scheme responds to wider development opportunities, movement and environmental enhancements in the town centre;</p> <p>xxvii. Open up access to the River Rom and positively incorporates the river into the development scheme(s); and</p> <p>xxviii. Optimises the design and location of development including the incorporation of resilience measures to address potential flood risk, where appropriate</p>	<p>Space for school provision could be accommodated within the site without necessarily reducing the quantum of development.</p> <p>Construction costs would be borne by the local authority, so no direct costs to the developer.</p>
Affordable Housing	<p>Requires all developments of more than 10 dwellings or residential developments of 1,000sq/m to provide at least 35% affordable housing contribution based on habitable rooms.</p> <p>Tenure mix of affordable housing of 70% social/affordable rent and 30% intermediate provision.</p>	<p>Will reduce Gross Development Value of developments as affordable units will be purchased by RPs from developers at a discount to market value.</p>

Policy Name	Policy Text / Summary	Comments and analysis of policy costs															
Housing mix	<p>All housing schemes should include a proportion of family sized homes and be in line with the Housing mix below</p> <table><tr><td></td><td>1 bed</td><td>2 bed</td><td>3 bed</td><td>4 bed</td></tr><tr><td>Market housing</td><td>5%</td><td>15%</td><td>64%</td><td>16%</td></tr><tr><td>Affordable housing</td><td>10%</td><td>40%</td><td>40%</td><td>10%</td></tr></table>		1 bed	2 bed	3 bed	4 bed	Market housing	5%	15%	64%	16%	Affordable housing	10%	40%	40%	10%	<p>The housing mix including a high proportion of three bed units reflects the suburban nature of the borough and provides a good fit with the type of housing the market will deliver. It should be noted that in the most accessible and urban areas of the borough the level of family housing may vary.</p>
	1 bed	2 bed	3 bed	4 bed													
Market housing	5%	15%	64%	16%													
Affordable housing	10%	40%	40%	10%													
Residential design and amenity	<p>To ensure a high quality living environment for residents of new developments the Council will support residential developments that:</p> <p>iv. Meet the National Space Standards and the London Plan requirement for floor to ceiling heights;</p> <p>v. Adhere to the London Plan policies in regards to 'Lifetime Homes Standards' and 'Lifetime Neighbourhoods';</p> <p>vi. Are sited and designed to maximise daylight and sunlight;</p> <p>vii. Incorporate an appropriate level of high quality, usable amenity space that is designed to be multi-functional and offer a range of leisure and recreation opportunities; that meets the needs of the intended occupants taking account of the need for an attractive outlook, and is not overlooked from the public highway;</p> <p>viii. Provide both balconies and communal amenity space in flatted schemes;</p> <p>ix. Provide dual aspect accommodation unless exceptional circumstances are demonstrated;</p> <p>In any development affordable and market housing will be expected to have the same external appearance and equivalent amenity in relation to views, daylight, noise and proximity to open space.</p> <p>New developments should promote independent living by utilising designs which can allow for alterations to be made in the future. The Council will require 90% of new build housing to meet Building Regulation requirement M4(2) 'Accessible and Adaptable Dwellings', with the remaining 10 percent meeting Building Regulation requirement M4(3) 'Wheelchair User Dwellings'.</p>	<p>These requirements reflect standard design standards across London that are required by existing London Plan requirements. In addition, the requirements reflect standards that buyers will require in new developments.</p>															
Social Infrastructure	<p>Requiring major developments to provide new social infrastructure facilities as part of mixed-use developments where feasible, where a deficiency is identified through the Infrastructure Delivery Plan.</p>	<p>Unlikely to have a significant quantifiable impact and are most likely to be facilities that enhance saleability and values. See also comments above in relation to schools.</p>															

Policy Name	Policy Text / Summary	Comments and analysis of policy costs
Open Space Leisure and Recreation	New developments are expected to create new open space, leisure and recreation facilities to address areas of deficiencies and ensure satisfactory levels of provision as well as safeguard and enhance existing allotments and extend provision, wherever possible, to provide opportunities for food growing, recreation and exercise. Requires developments to provide children's play and informal recreation space on-site in line with the London Plan;	While the requirement will reduce the potential capacity of sites, the policy reflects existing London Plan requirement for open space and amenity space.
Business Growth	Requiring large scale residential proposals in Romford Town Centre to incorporate flexible office space	Residential schemes are likely to incorporate commercial use on ground and lower floors as these are typically less desirable locations for residential. Our appraisals include commercial floorspace to test the impact this has on viability. The impact of policy 24 is also considered.
Affordable workspace	The Council will promote opportunities for start-up and small and medium enterprises by expecting major commercial and mixed-use schemes to provide 20% of its floorspace as affordable workspace.	Requirement for 20% of workspace to be provided as affordable will reduce capital value of commercial floorspace.
Skills and training	The Council will promote employment and skills development opportunities for local residents by supporting major development proposals that commit to: i. A minimum local labour target of 20% during construction and end user phase for major commercial or mixed use developments including a proportion of apprenticeships where the length of construction phase allows; ii. A minimum local labour target of 20% during construction for major residential developments; iii. The notification of all vacancies associated with the development and its end use through the Council's employment service; iv. Offer opportunities to local businesses within their supply chains.	These requirements can be met on-site without additional development costs. All medium and major developers have CSR policies that incorporate local labour and skills opportunities.

Policy Name	Policy Text / Summary	Comments and analysis of policy costs
Transport Connections	<p>The Council supports development which ensures safe and efficient use of the highway and demonstrates that adverse impacts on the transport network are avoided or, where necessary, mitigated. Major planning applications will require a transport assessment in line with TfL's Transport Assessment Best Practice Guidance.</p> <p>When bringing forward a planning application full Travel Plans or Travel Plan Statements will be required for development reaching certain thresholds as set out in Transport for London's (TfL) latest Guidance on Travel Plan requirements.</p> <p>Requiring new development to optimise sustainable access and other future transport connections,</p> <p>Supporting new developments that include shared use routes for people walking and cycling which lead to public open spaces and parks to promote active recreational activities;</p>	<p>Deminimis costs of providing paths which are likely to be required for residents in any event.</p>
Parking provision and design	<p>The Council will require all development to provide sufficient parking provision in accordance with the maximum parking standards in the London Plan. In areas of the borough that have low public transport accessibility levels (PTAL 0-2), the minimum residential parking standards:</p> <p>1 bed – 1space 2 bed – 1.5 space 3 bed + 2spaces</p> <p>In the most accessible parts of the borough where a standard of up to 1 space per unit applies the Council will expect a minimum of .5 parking spaces per unit.</p> <p>In all areas the Council will support proposals that:</p> <ul style="list-style-type: none"> i. Consider the location and layout of parking provision at the earliest stage and as an integral part of the design process; ii. Locate parking close to people's homes and in areas with natural surveillance; iii. Provide intensive and durable planting in regular intervals that visually screens the continuity of car parking to the front of dwellings and provides a green street scene; and iv. Include car club membership and provide car club parking spaces 	<p>No additional requirement beyond existing London Plan requirement and the levels of car parking that developers would wish to provide to ensure units are marketable. No additional cost burden arising from local plan policy.</p>

Policy Name	Policy Text / Summary	Comments and analysis of policy costs
Digital connections	<p>The council seeks to ensure that all new developments in the borough are equipped with the physical infrastructure necessary to enable the delivery of 'high-speed broadband services, wireless hot-spots and improved mobile signal,' as part of a borough wide initiative to increase connectivity, inclusivity and opportunity across Havering.</p> <p>The council will therefore require developers to:</p> <ul style="list-style-type: none"> i. 'Future-proof' their developments by installing direct fibre optic cable access wherever possible; ii. Provide suitable ducting from the buildings access point to the public highway- On larger developments all new roads and accesses should include suitable ducting; and iii. Ensure that the visual and environmental impact of such infrastructural works are minimised. <p>Exceptions may be made in exceptional circumstances where applicants can demonstrate through consultation with broadband infrastructure providers that the above requirements would not be possible, practical or economically viable. In these cases an equivalent developer contribution towards off site works will be sought which could enable greater access in the future.</p>	Provision of digital connectivity is a standard requirement in new build developments that buyers will require. No additional cost arising from the policy requirement.
Urban design	Sets out a range of design criteria for new developments	These are all standards that developers typically build to so that there development meets buyers' expectations. No additional cost requirements arising from policy.
Landscaping	Sets out a range of criteria for developers to meet when designing landscaping schemes	These requirements reflect buyers' requirements and do not add to development costs beyond normal build cost allowances.
Green infrastructure	The policy seeks to maintain and expand the network of green spaces and natural features in the borough and supports the provision of green infrastructure within new schemes.	Requirements for provision of green spaces and natural features are design requirements that developments typically provide and buyers expect. No additional costs beyond normal allowances build into development costs.
Biodiversity and nature conservation	The council will require all development to provide appropriate new biodiversity features on site	Reflects existing London Plan requirement – no additional costs beyond existing.

Policy Name	Policy Text / Summary	Comments and analysis of policy costs
Rivers and River Corridors	<p>The Policy seeks to enhance the river environment by requiring developments in close proximity to a river to investigate and, where feasible, secure opportunities to restore and enhance rivers and their corridors. This should, wherever possible, include the integration of flood defences into new developments.</p> <p>Where enhancements or restoration are financially viable but not feasible a financial contribution will be sought towards other relevant projects for the enhancement or restoration of other sections of the waterway.</p> <p>To protect and enhance the biodiversity and amenity value of river corridors while accommodating future adaptations to flood defences the Council will required development to be set back by 8 metres from main rivers, ordinary watercourses and other flood assets, and 16 meters from tidal rivers or defence structures.</p> <p>Development will also be expected to facilitate and act on the recommendations of the Thames Estuary 2100 Plan.</p>	<p>Developments will need to integrate flood defence mechanisms and suitable distances from water to ensure housing units are mortgagable and readily insurable. No additional costs arising from policy.</p>
Flood management	<p>The Council will support development that seeks to avoid flood risk to people and property and manages residual risk by applying the Sequential Test and, if necessary, the Exception Test as set out in the NPPF.</p> <p>The Council will seek to reduce the risk from surface water flooding by requiring development proposals to:</p> <ul style="list-style-type: none"> iv. Reduce surface water runoff by providing sustainable drainage systems (SuDS), unless there are practical reasons for not doing so; and v. Ensure that proposals for SuDS apply the London Plan drainage hierarchy achieving greenfield run-off rates, where feasible, and include clear arrangements for ongoing maintenance over the lifetime of the development. <p>The Council will expected developments to identify reasonable opportunities for flood risk reduction measures and resilient design and construction and not increase the risk of flooding.</p> <p>The Council will seek financial contributions towards the anticipated costs of flood management infrastructure required to protect the proposed development over its lifetime.</p>	<p>Developments will need to integrate flood defence mechanisms and suitable distances from water to ensure housing units are mortgagable and readily insurable. No additional costs arising from policy.</p> <p>SuDS reflect existing London Plan requirements so the policy does not introduce additional requirement beyond existing.</p>
Air Quality	This policy requires development to be air quality neutral	
Pollution	<p>The Council will support development proposals that:</p> <ul style="list-style-type: none"> i. Do not unduly impact upon amenity, human health and safety and the natural environment by noise, dust, odour and light pollution, vibration and land contamination; ii. Do not pose an unacceptable risk to the quality of the water catchment, groundwater or surface water; and iii. Optimise the design, layout and orientation of buildings and the use of green infrastructure to minimise exposure to the above pollutants. 	<p>Reflects existing London Plan requirements. No additional development cost arising from Local Policy.</p>

Policy Name	Policy Text / Summary	Comments and analysis of policy costs
On-site waste management	This policy sets criteria for the provision of on sites, waste and recycling facilities	This policy reflects current development standards and does not introduce any additional requirements beyond those contained in the London Plan. No additional costs arising from policy.
Low carbon design, decentralised energy and renewable energy	<p>The Council will seek to optimise the energy efficiency of buildings and support low carbon and renewable energy developments including energy efficiency improvements to existing buildings.</p> <p>The Council requires major development proposals to include a detailed energy assessment to demonstrate how the targets for carbon dioxide emissions reduction set out in the London Plan will be met. The Council will require a cash in lieu contribution to the Council's Carbon Reduction Fund on any shortfall to secure the delivery of carbon dioxide savings elsewhere.</p> <p>The Council will require major development to prioritise connection to any existing or planned decentralised energy networks and, where feasible, integrate combined heat and power systems on site.</p>	Sustainability requirements reflected through 6% additional cost on base build costs on all developments.
Delivery and implementation	The Council will conduct the following studies which developers will need to adhere to and may have an impact on the viability of a development: Infrastructure Delivery Plan (IDP); Housing Zone's; and Developers contributions	N/A

Appendix 2 - Sites details

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
LB HAVERING						Years 1 - 5		Years 6 - 10		Years 11 - 15		Resi costs Houses	Resi costs Flats	GIA Houses	GIA flats
Site ref	Development description	Gross Site area	Net site area	No of Houses	No of flats	No of Houses	No of Flats	No of Houses	No of Flats	No of Houses	No of Flats				
1	Small scheme - houses	0.33	0.33	10	0	10	-	-	-	-	-	1,128	1,269	940	-
2	Medium scheme - flats and houses	0.75	0.75	24	6	24	6	-	-	-	-	1,128	1,269	2,115	300
3	Medium scheme - flats and houses	0.83	0.83	40	10	40	10	-	-	-	-	1,128	1,322	3,525	500
4	Medium scheme - flats and houses	1.00	1.00	30	50	30	50	-	-	-	-	1,128	1,737	2,675	3,250
5	Large scheme - flats and houses	1.00	1.00	30	80	30	80	-	-	-	-	1,128	1,737	2,700	5,440
6	Large flatted scheme medium-high density	1.00	1.00	0	150	-	150	-	-	-	-	1,128	1,737	-	10,714
7	Large flatted scheme - high density	1.00	1.00	0	275	-	275	-	-	-	-	1,128	1,737	-	21,038
8	Large flatted scheme - high density	1.00	1.00	0	325	-	325	-	-	-	-	1,128	1,737	-	24,863
9	Large flatted scheme - high density	1.00	1.00	0	375	-	375	-	-	-	-	1,128	1,737	-	26,344
10	Large flatted scheme - high density	1.00	1.00	0	435	-	435	-	-	-	-	1,128	1,737	-	28,710

1	17	18	19	20	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
LB HAVEF		Floor areas - proposed (sqm)				CIL (rate per sqm)										Mayoral CIL and Crossrail S106									
Site ref		Retail A1-A2	Retail S'Mark	B1 office	Total resi units	Total resi FS	Retail A1-A2	Retail S'Mark	B1 office	B2 industri	B8 storage	C1 Hotel	C2 resi ins	D1	D2	Resi	Retail A1-A2	Retail S'Mark	B1 office	B2 industri	B8 storage	C1 Hotel	C2 resi ins	D1	D2
1					10	940	50	50	0	0	0	0	0	0	0	70	20	20	31	20	20	20	20	20	20
2					30	2,415	50	50	0	0	0	0	0	0	0	70	20	20	31	20	20	20	20	20	20
3					50	4,025	50	50	0	0	0	0	0	0	0	70	20	20	31	20	20	20	20	20	20
4					80	5,925	50	50	0	0	0	0	0	0	0	70	20	20	31	20	20	20	20	20	20
5					110	8,140	50	50	0	0	0	0	0	0	0	70	20	20	31	20	20	20	20	20	20
6		500		500	150	10,714	50	50	0	0	0	0	0	0	0	70	20	20	31	20	20	20	20	20	20
7		750		750	275	21,038	50	50	0	0	0	0	0	0	0	70	20	20	31	20	20	20	20	20	20
8		1,000		1,000	325	24,863	50	50	0	0	0	0	0	0	0	70	20	20	31	20	20	20	20	20	20
9		1,250		1,250	375	26,344	50	50	0	0	0	0	0	0	0	70	20	20	31	20	20	20	20	20	20
10		1,500		1,500	435	28,710	50	50	0	0	0	0	0	0	0	70	20	20	31	20	20	20	20	20	20

	48	49	50	51	52	53	54	55	56	57	58	59	60	61	68	69	70	71	79	80	81	
LB HAVEF	S106 (per sqm for commercial; per unit for residential)											Rents			Cap val		Yields			Build costs		
Site ref	C3 resi	Retail A1-A5	Retail S'Ma	B1 office	B2 industri	B8 storage	C1 Hotel	C2 resi ins	D1	D2	Resi	Retail A1-A5	Retail S'Ma	B1 office	Resi	Retail A1-A5	Retail S'Ma	B1 office	Retail A1-A5	Retail S'Ma	B1 office	
1	20	20	20	20	20	20	20	20	20	20	2,000	350	350	200	5,500	6.00%	5.00%	6.50%	1,208	1,208	1,639	
2	20	20	20	20	20	20	20	20	20	20	2,000	350	350	200	5,500	6.00%	5.00%	6.50%	1,208	1,208	1,639	
3	20	20	20	20	20	20	20	20	20	20	2,000	350	350	200	5,500	6.00%	5.00%	6.50%	1,208	1,208	1,639	
4	20	20	20	20	20	20	20	20	20	20	2,000	350	350	200	5,500	6.00%	5.00%	6.50%	1,208	1,208	1,639	
5	20	20	20	20	20	20	20	20	20	20	2,000	350	350	200	5,500	6.00%	5.00%	6.50%	1,208	1,208	1,639	
6	20	20	20	20	20	20	20	20	20	20	2,000	350	350	200	5,500	6.00%	5.00%	6.50%	1,208	1,208	1,639	
7	20	20	20	20	20	20	20	20	20	20	2,000	350	350	200	5,500	6.00%	5.00%	6.50%	1,208	1,208	1,639	
8	20	20	20	20	20	20	20	20	20	20	2,000	350	350	200	5,500	6.00%	5.00%	6.50%	1,208	1,208	1,639	
9	20	20	20	20	20	20	20	20	20	20	2,000	350	350	200	5,500	6.00%	5.00%	6.50%	1,208	1,208	1,639	
10	20	20	20	20	20	20	20	20	20	20	2,000	350	350	200	5,500	6.00%	5.00%	6.50%	1,208	1,208	1,639	

1	89	90	91	92	93	94	95	96	97	98	120	121	122	123	124	131	132	133	134	141	142	143	144
LB HAVEFNet to gross												Build start (QUARTERS)				Build period (QUARTERS)				Investment sale (QUARTERS)			
Site ref	Retail A1-A5	Retail S'Ma	B1 office	B2 industrial	B8 storage	C1 Hotel	C2 resi ins	D1	D2	Resi	Total new floorspace	Greenfield Infrastructure	Retail A1-A5	Retail S'Ma	B1 office	Resi	Retail A1-A5	Retail S'Ma	B1 office	Resi	Retail A1-A5	Retail S'Ma	B1 office
1	85%	85%	80%	85%	85%	85%	85%	85%	85%	85%	940	-	2	2	2	2	4	4	4	4	6	6	8
2	85%	85%	80%	85%	85%	85%	85%	85%	85%	85%	2,415	-	2	2	2	2	6	6	6	6	8	6	8
3	85%	85%	80%	85%	85%	85%	85%	85%	85%	85%	4,025	-	2	2	2	2	6	6	6	6	8	8	8
4	85%	85%	80%	85%	85%	85%	85%	85%	85%	85%	5,925	-	2	2	2	2	8	8	8	8	10	10	10
5	85%	85%	80%	85%	85%	85%	85%	85%	85%	85%	8,140	-	2	2	2	2	8	8	8	8	10	10	10
6	85%	85%	80%	85%	85%	85%	85%	85%	85%	80%	11,714	-	2	2	2	2	8	8	8	8	10	10	10
7	85%	85%	80%	85%	85%	85%	85%	85%	85%	80%	22,538	-	2	2	2	2	8	8	8	8	10	10	10
8	85%	85%	80%	85%	85%	85%	85%	85%	85%	80%	26,863	-	2	2	2	2	9	9	9	9	11	11	11
9	85%	85%	80%	85%	85%	85%	85%	85%	85%	80%	28,844	-	2	2	2	2	9	9	9	9	11	11	11
10	85%	85%	80%	85%	85%	85%	85%	85%	85%	80%	31,710	-	2	2	2	2	9	9	9	9	11	11	11

1	152	153	154	155	156	157
LB HAVEF	Resi sales period (qtrs)	Sales period start	Area	On-site AH	% AH rented	
Site ref	Resi	Resi				
1	1	5	Havering	0	50%	80%
2	2	7	Havering	0	50%	80%
3	3	7	Havering	0	50%	80%
4	4	8	Havering	0	50%	80%
5	5	8	Havering	0	50%	80%
6	5	8	Havering	0	50%	80%
7	6	8	Havering	0	50%	80%
8	6	9	Havering	0	50%	80%
9	7	9	Havering	0	50%	80%
10	8	9	Havering	0	50%	80%

Appendix 3 - Sample appraisal

LOCAL PLAN AND CIL VIABILITY MODEL

This is input source box for reference info that appears on all sheets

Local Authority	LONDON BOROUGH OF HAVERING
Area(s)	
Author	
Date	17 February 2017
Reference	

Site	1
	0.33

DO NOT CHANGE SITE USING THIS CELL - USE M3 IN "RESULTS" PAGE

Values: - NOT USED

Sales values	
--------------	--

Affordable housing percentage	50%
of which social rented	80%
of which intermediate	20%

Code for Sustainable Homes

Cost allowance - all tenures (% of base costs)	6%
--	----

Grant available	<input type="checkbox"/> check box
-----------------	------------------------------------

Residual Land Values	Total units	Total floor area GIA	Private floor area	Ave unit size	CIL as % of dev costs
£1,001,822	10	940	470	94	1.2%

Site area	0.33
Scheme above AH threshold	y

GIA per unit	Units years 1 - 5	Units years 6 - 10	Units years 11 - 15	GIA years 1 - 5	GIA years 6 - 10	GIA years 11 - 15	G to N flats	NIAs years 1 - 5	NIAs years 1 - 6	NIAs years 1 - 7	Totals
94	10	-	-	940	-	-	100%	940	-	-	940
-	-	-	-	-	-	-	85%	-	-	-	-
	10	-	-	940	-	-		940	-	-	940

Revenue	Years 1 - 5	Years 6 - 10	Years 11 - 15
Value psm	5500	5500	5500
Private GDV	2,585,000	-	-

Starter Homes to be sold at

80% of MV

Base costs	Per sqm	Years 1 - 5	Years 6 - 10	Years 11 - 15
Houses	1,128	1,128	1,128	1,128
Houses externals	10%	113	113	113
Flats	1,269	1,269	1,269	1,269
Flats externals	10%	127	127	127
Costs + externals		1,166,352	-	-

Growth/inflation	Year 1-5	Year 6 - 10	Year 11 - 15
Sales	100.00%	100.00%	100.00%
Build	100.00%	100.00%	100.00%

LOCAL PLAN AND CIL VIABILITY MODEL

Local Authority	LONDON BOROUGH OF HAVERING
Area(s)	0
Author	0
Date	17 February 2017
Reference	0

SALES AND AFFORDABLE HOUSING VALUES

VALUE BANDS for private sales

Sub Market	£ per sq metre
A Value 1	£3,445
B Value 1	£3,750
C Value 1	£4,000
D Value 1	£4,250
E Value 1	£4,500
F Value 1	£4,750
G Value 1	£5,000
H Value 1	£5,250
I Value 1	£5,500

GROUND RENTS from flats (£s per annum)

	Private	Affordable
Average	£200	£0
		£0
		£0
Capitalisation rate		4.50%

Investment value

	Private	Affordable
One bed	£4,444	£0
Two beds	£0	£0
Three beds	£0	£0
Four beds	£0	£0

Select affordable value option from drop down box

Option 2: Capital values calculated from net rents & yields

AFFORDABLE HOUSING CAPITAL VALUES (price paid to developer)

Option 1 User defined capital values per unit

	Social rent			NBHB		
	Capitalised rent per unit	Indicative HCA funding per unit	Value per unit	Equity + rent	Indicative HCA funding per unit	Value per unit
One bed flats	£78,000	£0	£78,000			£0
Two bed flats	£95,000	£0	£95,000			£0
Three bed flats	£123,000	£0	£123,000			£0
Four bed flats	£132,000	£0	£132,000			£0
Two bed house	£95,000	£0	£95,000			£0
Three bed house	£123,000	£0	£123,000			£0
Four bed house	£132,000	£0	£132,000			£0

Per sqm
 Average Aff Rent value: £866
 Average Shd Own value: £3,038.80
 Blended value: £1,300.56 (Based on selection from 'Test Variables' sheet)

NOT USED

Option 2 Capital values for affordable housing calculated from net rents & yield assumption

	Social rent					NBHB								
	Net Target rent per annum	Yield	Capital value	Indicative unit funding	Value per unit	Average market value	% of equity sold	Value of equity sold	Rent (% of retained equity)	Rent per annum	Yield	Capital value of retained equity	Indicative HCA funding per unit	Value per unit
One bed flats		6.50%	£0	£0	£0	£275,000		£0		£0	6.00%	£0	£0	£0
Two bed flats		6.50%	£0	£0	£0	£401,500		£0		£0	6.00%	£0	£0	£0
Three bed flats		6.50%	£0	£0	£0	£473,000		£0		£0	6.00%	£0	£0	£0
Four bed flats		6.50%	£0	£0	£0	£495,000		£0		£0	6.00%	£0	£0	£0
Two bed house		6.50%	£0	£0	£0	£456,500		£0		£0	6.00%	£0	£0	£0
Three bed house		6.50%	£0	£0	£0	£528,000		£0		£0	6.00%	£0	£0	£0
Four bed house		6.50%	£0	£0	£0	£621,500		£0		£0	6.00%	£0	£0	£0

LOCAL PLAN AND CIL VIABILITY MODEL

Local Authority	LONDON BOROUGH OF HAVERING
Area(s)	0
Author	0
Date	17 February 2017
Reference	0

BUILD COSTS

BUILD COSTS					TIMINGS <i>for cash flow</i>				PLANNING OBLIGATIONS / CIL						
	not used	not used	not used		Build start	Build period	Sales period	Sales period start	S106 payments		CIL Charges				Fees
Typology	Build costs per gross sqm - HOUSES	Build costs per gross sq m - FLATS	External works and other costs	Gross to net adjustment for flats	Quarters	Quarters	Quarters	Quarters from start on site	£s per sqm all tenures	Quarter paid	£s p sq m private sales only	Instal-ment 1 - Qtr paid	Instal-ment 2 - Qtr paid	Instal-ment 3 - Qtr paid	% of build cost
Residential	£0	£0	£0	85.0%	2	4	1	5	£2,000	4	£70	1	3	5	10%

NB externals included in base costs in 'sites page'

Greenfield Infra 0
Per sqm £0.00

OTHER COSTS

Developer return % GDV	Private	20.00%
	Affordable	6.00%
Energy requirements	All tenures	6%
Contingency		5%
Marketing costs % of sales values		3.00%
Legal Fees % of GDV		0.50%
Site acquisition costs % land value		6.80%
Development Finance		6.00%

SAMM per unit £0

Cat 2 accessibility:	Applies to all dwellings	Nos of units:
Houses	£521	10
Flats	£924	-

Cat 3 accessibility	Applies to 10% of dwellings	
Houses	£22,694	1
Flats	£7,906	-

LOCAL PLAN AND CIL VIABILITY MODEL

Local Authority	ESSEX BOROUGH OF HAVERING
Revision	1
Proxy number	1
Date	17 February 2017
Reference	533

DEVELOPMENT PERIOD CASHFLOW

Net leasage	
Dev storage	
Revenue	£ 2,585,000
Investment value of ground rents	£ -
GDV before costs of sale	£ 2,585,000
Costs of Sale	
Marketing costs	3.00%
Legal fees	0.50%
Sub Total	£ 430,475
Net commercial investment value	
Retail A1-A5	£ -
Retail S/Market	£ -
B1 office	£ -
B2 industrial	£ -
B8 storage	£ -
C1 Hotel	£ -
C2 res institution	£ -
D1	£ -
D2	£ -
Sub Total	£ 0
Total commercial value	£ 2,494,525
Speculative NDV	
Affordable Housing Revenue	
No fees on sale	£ 611,263
NDV	£ 3,105,788
Standard Costs	
Residential	£ 1,236,333
GF infrastructure costs	£ -
Retail A1-A5	£ -
Retail S/Market	£ -
B1 office	£ -
B2 industrial	£ -
B8 storage	£ -
C1 Hotel	£ -
C2 res institution	£ -
D1	£ -
D2	£ -
Contingency	£ 61,817
Sub Total	£ 1,298,150
Other Costs	
Professional fees	10.00%
Sub Total	£ 129,815
CIL	
Real CIL	£ 10,967
Sub Total	£ 32,900
Real Section 106 Costs	£ 20,000
Accessibility standards	£ 55,808
SAMM	£ 75,808
Sub Total	£ 106,708
Total Other Costs	£ 1,536,673
Total Costs	£ -
Developer's profit on GDV	% of GDV 20.00%
% of GDV affordable	0%
Residual Sum before interest	£ 997,345
Cumulative residual balance for interest calculation	
Interest	6.00%
Residual Sum for quarter after interest	£ 1,157,990

Land Value	
Net developable hectare	£3,035.824
per gross hectare	£3,035.824

Residual land value	
Site acquisition costs	6.80%
MV (Residual Sum available to offer for Development Opportunity)	

Quarterly Interest 1.50%

Project Totals	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 5	Qtr 6	Qtr 7	Qtr 8	Qtr 9	Qtr 10	Qtr 11	Qtr 12	Qtr 13	Qtr 14	Qtr 15	Qtr 16	Qtr 17	Qtr 18	Qtr 19	Qtr 20	Qtr 21	Qtr 22
Year 1	Year 1	Year 1	Year 1	Year 1	Year 1	Year 1	Year 1	Year 1	Year 1	Year 1	Year 1	Year 1	Year 1	Year 1	Year 1	Year 1	Year 1	Year 1	Year 1	Year 1	Year 1	Year 1
Revenue	0	0	0	0	2,585,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Investment value of ground rents	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GDV before costs of sale	0	0	0	0	2,585,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Marketing costs	0	0	0	0	77,550	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legal fees	0	0	0	0	12,925	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub Total	0	0	0	0	430,475	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net commercial investment value	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retail A1-A5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retail S/Market	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B1 office	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B2 industrial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B8 storage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C1 Hotel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2 res institution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total commercial value	0	0	0	0	2,494,525	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Speculative NDV	0	0	0	0	2,494,525	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Affordable Housing Revenue	0	152,816	152,816	152,816	152,816	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NDV	0	152,816	152,816	152,816	2,828,291	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Standard Costs	0	309,083	309,083	309,083	309,083	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residential	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GF infrastructure costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retail A1-A5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retail S/Market	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B1 office	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B2 industrial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B8 storage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C1 Hotel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2 res institution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contingency	0	15,454	15,454	15,454	15,454	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub Total	0	324,537	324,537	324,537	324,537	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Costs	0	32,454	32,454	32,454	32,454	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub Total	0	32,454	32,454	32,454	32,454	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CIL	0	10,967	10,967	10,967	10,967	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Real CIL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub Total	0	10,967	10,967	10,967	10,967	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Real Section 106 Costs	0	0	0	0	20,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Accessibility standards	0	0	0	0	55,808	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SAMM	0	0	0	0	75,808	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub Total	0	10,967	10,967	10,967	10,967	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Other Costs	0	10,967	10,967	10,967	10,967	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	0	10,967	10,967	10,967	10,967	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer's profit on GDV	0	0	0	0	536,095	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of GDV affordable	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residual Sum before interest	-10,967	-213,344	-224,311	-235,278	1,916,069	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumulative residual balance for interest calculation	-10,967	-224,466	-461,994	-747,502	1,157,990	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest	-155	-3,176	-6,396	-10,578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residual Sum for quarter after interest	-11,122	-216,621	-230,707	-245,780	1,916,069	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

£ 1,074,916

£ 1,074,916
£ 73,034
£ 1,001,882