

# Local Plan Viability Assessment Residential Analysis

Prepared on behalf of  
**East Riding of Yorkshire Council**  
January 2014

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# 1 Introduction

## 1.1 PURPOSE

DTZ and Arup have been appointed by East Riding of Yorkshire Council (the Council) to prepare viability evidence to support the emerging East Riding Local Plan. This report presents findings from viability modelling work for residential land uses.

## 1.2 EAST RIDING LOCAL PLAN VIABILITY CONTEXT

Once adopted, the East Riding Local Plan will represent the statutory development plan for East Riding. It will set out the scale and distribution of development that is proposed for East Riding between 2012 and 2029 and will provide the statutory basis against which all future development proposals will be assessed and determined.

The need for viability testing of the Local Plan has arisen as a result of the requirements of the National Planning Policy Framework (NPPF). The NPPF has strengthened the importance of viability in the planning process and particularly in respect of development plan preparation. In order to ensure viability and deliverability of Local Plans, the NPPF states:

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

## 1.3 SCOPE AND OBJECTIVES

The aim of this assessment is therefore to establish whether the proposed standards imposed on residential development in the emerging Strategy document are realistically viable. The principal policy standards imposed in respect of residential development in the emerging Local Plan are as follows:

- Policy H2 Providing Affordable housing (5%-25% area wide variations)
- Policy H4 Making the most efficient use of land (minimum density standard 30 dwellings per ha)
- Policy C3 Open space, sport and recreation (approximately £3,000 contribution per dwelling) of either on or off-site provision of public open space)

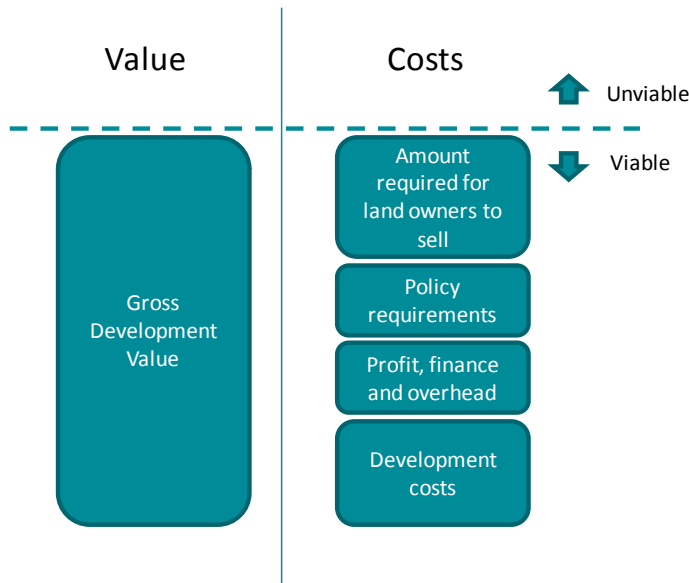
Our initial review of the HCA design standards have established that imposing this as a requirement (as suggested in draft Policy H2) would prove difficult to test on economic viability terms due to the large number of variable thresholds that need to be met. Therefore it has been agreed that this element of emerging Policy H2 should be modified such that the design standards are guidance only, not a requirement, and thus there is no need to test them in respect of economic viability.

## 1.4 METHOD OF APPROACH

The publication of *Viability Testing Local Plans* by the Local Housing Delivery Group, May 2012, offers guidance for local authorities in assessing local plan viability in accordance with the NPPF. It underlines the importance

of assessing the cumulative impact of policies on development viability and suggests a structured and transparent means of assessing viability. It recommends the use of an economic viability model based on a simple residual development appraisal whereby the impact of various policy standards can be quantified and assessed against the value of a development scheme. If the cumulative impact of all policy standards result in development costs exceeding Gross Development Value, then development is not viable:

**Figure 1.1: Viability testing – principles**

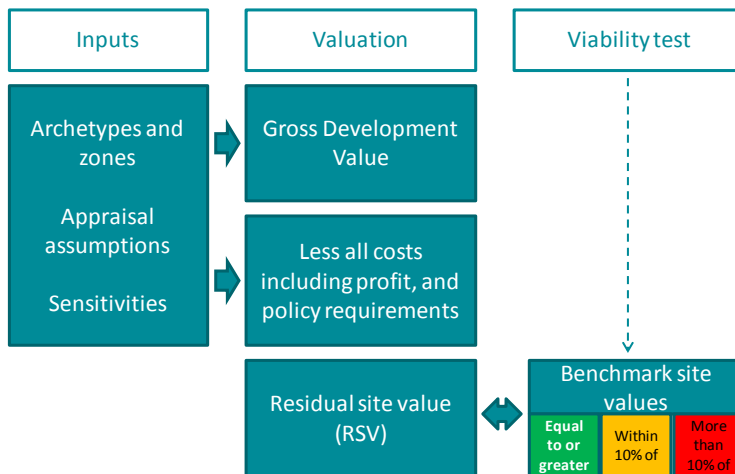


DTZ’s approach involves the analysis of a selection of hypothetical development schemes to reflect the wide range of circumstances in which development is anticipated to come forward in East Riding. DTZ has developed a spreadsheet economic viability model that allows a large number of development scenarios to be tested in this way, including sensitivity testing of key variables. The appraisals are carried out on a residual site value basis, whereby the impact of various policy standards is taken into consideration alongside other costs which are discounted from Gross Development Value to produce a residual site value. The site value is then tested against a benchmark to determine whether or not development is viable.

For the purposes of this assessment, the policy standards set out in the emerging Local Plan are incorporated into the development appraisals to assess the cumulative impact on viability. Viability is tested by the relationship of residual site values of hypothetical schemes (incorporating the cumulative policy standards) against the benchmark. Where site values of the archetype scheme (including relevant cumulative policy impacts) is:

- Equivalent to or more than the benchmark, it is recorded as green, and therefore regarded as viable
- Within 10% of the benchmark, it is recorded as amber and therefore at risk of compromising land release
- More than 10% below the benchmark, it is recorded as red and therefore likely to compromise land release

**Figure 1.2 Approach to viability testing**



Where:

- Gross Development Value (GDV) represents the cumulative capital sales value of the development including any grants where applicable
- Development costs represent all the costs incurred by a developer in delivering the completed development scheme – site costs, build costs, contingencies, developer’s profit, finance and all relevant professional, legal, sales/marketing fees, policy costs and tax.
- Residual land value represents the difference between Gross Development Value and Development costs including profit.

## 1.5 CONSULTATION

A developer workshop together with survey questionnaire has been undertaken to inform the appraisal assumptions used in the appraisals. Attendees at the workshop were as follows:

Organisation
Persimmon Homes
ERYC (Valuation and Estates)
ERYC (Legal)
St Modwen
Linden Homes
Beal Homes
Wykeland
Micheal Glover
Hickling Gray
Hull City Council
Savills
Hickling Gray
ERYC (Bridlington Renaissance)
Lovel Developments
ERYC (Development Management)
North East Lincolnshire Council
ERYC (Housing Strategy)
Peter Ward Homes

Attendees at the meeting also included the project team from ERYC and DTZ.

## 1.6 CAVEATS

This report deals specifically with economic viability of selected hypothetical development schemes. It does not address the matter of either:

- Area wide development quantum / forecast; or
- Deliverability of land supply

These matters sit outside of the scope of this instruction and are being addressed by the Council as part of the wider evidence base supporting the Local Plan preparation.

It is also emphasised that the viability assessments undertaken as part of this instruction are indicative development appraisals only and are highly sensitive to the assumptions made. A range of sensitivities have been examined in order to cover the range of possible variations in market conditions but we would underline that there remains a significant degree of uncertainty around many of the variables and that on a generic area wide level, viability appraisals are an approximate indicator only.

## 1.7 STRUCTURE OF REPORT

We set out in the remaining sections of this report the assumptions used for our appraisals and the results. The report considers residential development viability, to which the standards relating to affordable housing, public open space and development densities apply.

## 2 Residential Development Viability

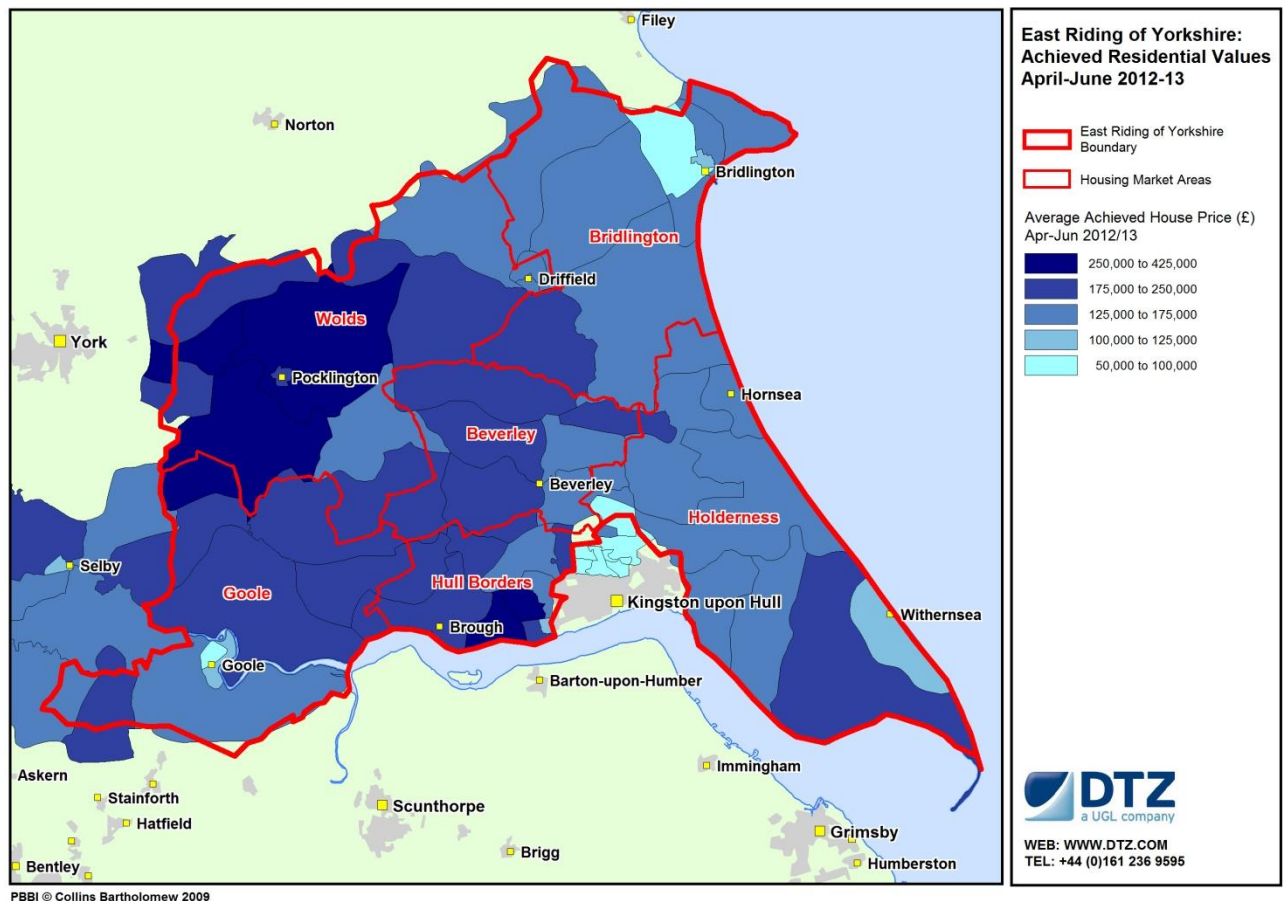
### 2.1 VALUE AREAS

The East Riding of Yorkshire is divided into six different housing market areas as identified in Figure 2.1 below:

- Beverley
- Bridlington
- Holderness
- Hull Borders
- The Wolds
- Goole

Each of these housing market areas is assessed within this study.

Figure 2.1 East Riding of Yorkshire housing market areas



Within the housing market areas there are a number of settlement types including:

- Major Haltemprice Settlements (MHPS – i.e. adjoining the City of Hull's urban area within the Hull borders housing market area)

- Principal Towns
- Towns
- Rural Areas – Rest of District

The market areas and settlements have been analysed to identify a number of distinct value areas as summarised in Table 2.1 below. These value areas are consistent with the Council's Affordable Housing Viability Assessment (AHVA).

**Table 2.1: East Riding of Yorkshire market areas and settlement typologies**

Housing Market Area	Settlement Type	Beacon from AHVA	Value Area
Beverley	MHPS	N/A	N/A
	Principal Town	Beverley	Beverley Medium & Low Value
	Towns	N/A	N/A
	Rest of District (Rural Areas)	Cherry Burton, Etton and Walkington	Beverley High Value
Bridlington	MHPS	N/A	N/A
	Principal Town	Bridlington	Bridlington Medium & Low Value
	Towns	N/A	N/A
	Rest of District (Rural Areas)	Rudston, Kilham and Burton Agnes	Bridlington High Value
Holderness	MHPS	N/A	N/A
	Principal Town	N/A	N/A
	Towns	Hornsea and Withernsea	Holderness Mid Value & Low Value
	Rest of District (Rural Areas)	Burton Pidsea; Seaton; Siggleshorne; Burstwick	Holderness High Value
Hull Borders	MHPS	All Beacons	All Value Areas
	Principal Town	N/A	N/A
	Towns	Brough/Elloughton	Hull Borders High Value
	Rest of District (Rural Areas)	Swanland	Hull Borders High Value
The Wolds	MHPS	N/A	N/A
	Principal Town	Driffield	Wolds Low Value
	Towns	Pocklington & Market Weighton	Wolds High & Low Value
	Rest of District (Rural Areas)	Wilberfoss and Stamford Bridge Middleton on the Wolds	Wolds Medium & High Value
Goole	MHPS	N/A	N/A
	Principal Town	Goole	Goole Low Value
	Towns	Howden	Goole High Value
	Rest of District (Rural Areas)	Snaith, Airmyn, Rawcliffe and Marshlands (SARM)	Goole Medium Value

As can be seen from the above, each settlement type has been given a typical beacon ward/area which represents the type of site which will mirrors those used in the Affordable Housing Viability Assessment (AHVA). These Beacons have been selected using the results of the AHVA and aligned to this work to ensure continuity.



The following affordable housing policy requirements apply to each area in accordance with emerging policy:

**Table 2.2: Affordable housing policies**

Value Areas	Affordable Housing Contribution
Beverley Medium and Low Value	25%
Beverley High Value	25%
Bridlington Medium and Low Value	20%
Bridlington High Value	20%
Holderness Mid Value and Low Value	15%
Holderness High Value	15%
Hull Borders Low Value	25%
Hull Borders High Value	25%
Wolds Low Value	25%
Wolds Medium and High Value	25%
Goole Low Value	5%
Goole Medium Value	20%
Goole High Value	25%

## 2.2 SCHEME ASSUMPTIONS

The schemes will be tested on the following notional site sizes which have been determined based on a review of the available evidence relating likely future supply of housing land. Although there are likely to be some large scale sites that exceed the ‘large’ site size outlined below, because development schemes would normally be phased in plots of no larger than 5 ha, this is an appropriate range of site sizes for the purposes of a viability analysis.

**Table 2.3: Site sizes**

Site size sample	Developable area (ha)
Small	0.5
Medium	3
Large	5

Density and housing mix variations have been used to include both the Local Plan’s minimum density requirement (30 units per ha) as well as other densities that developers may pursue. They are as follows:

**Table 2.4: Density and mix**

Development density	House size mix (%)				
	2 bed flat	2 bed house	3 bed house	4 bed house	5 bed house
20 units ph	0	0	25	50	25
30 units ph	0	30	35	25	10
35 units ph	5	30	35	20	10
40 units ph	10	30	30	20	10

Housing sizes (floor areas) are assumed as follows:

**Table 2.5: Unit sizes**

House type	Size (GIA sq m)	Size (GIA sq ft)
2 bed flat	65	700
2 bed house	81	875
3 bed house	98	1050
4 bed house	125	1350
5 bed house	144	1550

## 2.3 DEVELOPMENT APPRAISAL ASSUMPTIONS

DTZ has reviewed evidence regarding sales values, data from Hometrack (dated April 2013) and undertaken research of achieved sales on the ground. Regard has also been had to the Affordable Housing Viability Study value assumptions in 2010 and the changes that have happened since this time. The following table identifies sales values for each of the market areas and value typology:

**Table 2.6: Sales value assumptions**

Residential Sales Values	£ psm
Beverley Medium and Low Value	1,959
Beverley High Value	2,174
Bridlington Medium and Low Value	1,614
Bridlington High Value	1,938
Holderness Medium and Low Value	1,507
Holderness High Value	1,830
Hull Borders Low Value	1,776
Hull Borders High Value	2,153
Wolds Low Value	1,909
Wolds Medium and High Value	2,124
Goole Low Value	1,476
Goole Medium Value	1,707
Goole High Value	1,939

Affordable housing values are capitalised at 65% of the above sales values for intermediate tenure and 35% for affordable rent.

Build costs have been estimated based on BCIS with adjustment following a review of local evidence. The costs allow for a 15% uplift for external works as follows:

- Flats £968 per sq m
- Houses £905 per sq m

Other appraisal assumptions:

- Developer's gross profit 20% of GDV – inclusive of all company overheads.
- 30 dwellings per annum sales rate
- Professional fees 6%
- Contingencies 5%

- Marketing and sales agent fees 3.5%
- Acquisition cost 5.8%
- Finance 6.5%
- £3,000 per unit S106 costs
- Abnormal costs excluded – abnormal costs relate to those costs that are specific to the site over and above those typically expected for a standard house build.

## 2.4 VALUE SENSITIVITIES

The Local Plan Delivery Group guidance on viability testing of local plans (2012) indicates that viability should be tested over the entire 15 year Local Plan timetable. In view of the likelihood of changing market conditions through this period a number of scenarios have been used to model such possible changes.

DTZ have maintained a long running index of UK average house prices and have examined the range of real price variance over the last property cycle 1988 to 2007 to provide the basis for looking at sensitivities over the future Local Plan period. The data is sourced directly from the Land Registry, linked to RPI, to ensure nominal values are converted to real ones. This index is then regionally adjusted using the Nationwide House Price Index to get to our base position up to present day for the region. The index is projected forward over the life of the plan period, reflecting official RPI forecasts, using a weighted average of the following four sources:

- The actual recorded changes in the previous property cycle
- DTZ Residential Research
- Savills Residential Research
- Knight Frank Residential Research.

Using the dataset described above we have modelled 4 positions over the plan period – current, a low point, a high point and a midpoint between current and high prices. This has produced the following sensitivity variables.

High = 160% of current sales values

Mid = 130% of current sales values

Low = 94% of current sales values

The table below highlights the current, high, mid and low sales values for each value typology:

**Table 2.7: Sales value sensitivities**

	Local Plan Viability Assumptions	High Values	Mid Values	Low Values
Beverley Medium and Low Value	£1,959	£3,134	£2,547	£1,841
Beverley High Value	£2,174	£3,478	£2,826	£2,044
Bridlington Medium and Low Value	£1,614	£2,582	£2,098	£1,517
Bridlington High Value	£1,938	£3,101	£2,519	£1,822
Holderness Mid Value and Low Value	£1,507	£2,411	£1,959	£1,417
Holderness High Value	£1,830	£2,928	£2,379	£1,720
Hull Borders Low Value	£1,776	£2,842	£2,309	£1,669
Hull Borders High Value	£2,153	£3,445	£2,799	£2,024
Wolds Low Value	£1,909	£3,054	£2,482	£1,794
Wolds Medium and High Value	£2,124	£3,398	£2,761	£1,997
Goole Low Value	£1,476	£2,361	£1,918	£1,387
Goole Medium Value	£1,707	£2,731	£2,219	£1,605
Goole High Value	£1,939	£3,102	£2,520	£1,822

It should be noted that these scenarios are intended to represent possible changes in market conditions over the plan period, although we would emphasise that they are not predictions of how market conditions will change, but merely sensitivities to test potential levels of variation.

## 2.5 SITE VALUE THRESHOLDS

The site value threshold is a critical component of viability testing and in area wide viability studies is problematic due to the wide range of hypothetical schemes being tested and the lack of adequate evidence of what minimum level land owners are willing to release their land for.

The Local Housing Delivery Group: *Viability Testing Local Plans advice for planning practitioners* (July 2012), states that viability studies should incorporate a threshold land value based on ‘a premium over current use values and credible alternative use values’. It also highlights the limitations of using market values for policy-making viability evidence recognising that historic market values do not take into account the impact of future policy on land prices.

The RICS guidance note *Financial Viability in Planning* 2012 defines site value as follows:

*“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.”*

It also states that when undertaking Local Plan or CIL (area-wide) viability testing, a second assumption needs to be applied to the above:

*“Site Value (as defined above) may need to be further adjusted to reflect the emerging policy / CIL charging level. The level of the adjustment assumes that site delivery would not be prejudiced. Where an adjustment is made, the practitioner should set out their professional opinion underlying the assumptions adopted. These include, as a minimum, comments on the state of the market and delivery targets as at the date of assessment.”*

Whilst there appears on face value to be an inconsistency in the recommendations of the two guidance documents, both effectively recommend that site value thresholds for area wide viability studies should be set somewhere between existing use/credible alternative use and market values assuming planning permission.

For East Riding, evidence relating to market values of specific land transactions is limited and to provide a complete picture of relevant up to date site values across the District would necessitate the use of anecdotal evidence that we consider would not provide a reliable guide. Moreover, we do not consider that historic market values provide an appropriate benchmark in these circumstances in view of the guidance provided by both the Local Housing Delivery Group and RICS quoted above.

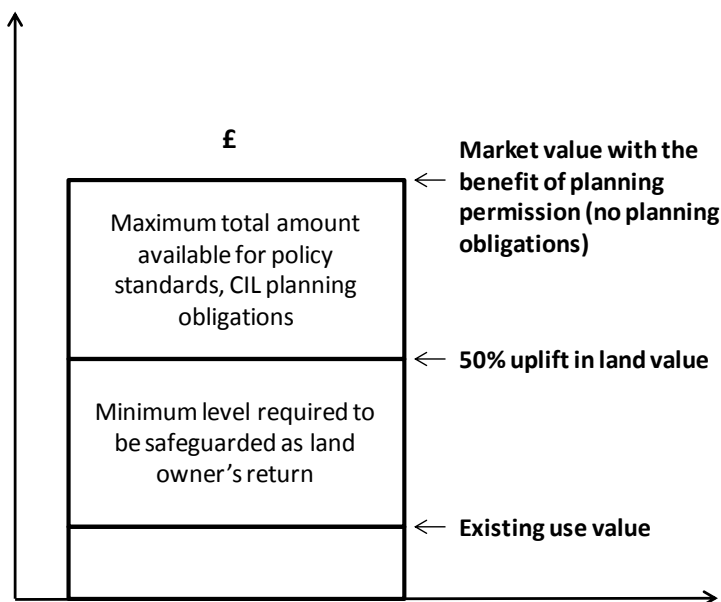
We have used a formula that calculates a site value threshold utilising the archetype viability assumptions outlined above. It sets the site value threshold at 50% of the uplift between existing use/alternative use values and full market value assuming planning consent for residential development with no planning obligations. Effectively therefore, this level is set as a minimum floor level for testing the scale of planning obligations and policy standards. Figure 2.2 below illustrates this approach.

To arrive at a suitable site value threshold using this methodology, two land typologies have then been applied to reflect the principal different existing use values which prevail across the District:

- Greenfield land use – £17,300 per ha (£7,000 per acre)
- Brownfield land use – £308,900 per ha (£125,000 per acre)

Site value thresholds are then calculated for each development archetype that is appraised based on the 50% uplift formula. A key benefit of this approach is that the site value threshold is linked (and adjusts) to the dynamics of the individual development scheme and costs and value assumptions that are appraised in the model. Given the limited number of residential allocations made in the emerging East Riding Local Plan on previously developed sites, it is considered that in most cases a site value threshold more towards greenfield land use is likely to apply.

**Figure 2.2: Approach to site value threshold**



The table below summarises average site value thresholds for each land typology in each value area, based on the above formula:

**Table 2.8: Average site value thresholds**

Average site value thresholds	Agricultural as existing use		Employment as existing use	
	per hectare	per acre	per hectare	per acre
Beverley medium / low	£709,396	£287,088	£1,000,974	£405,088
Beverley high	£942,224	£381,313	£1,233,802	£499,313
Hull low value	£510,978	£206,790	£802,556	£324,790
Hull high value	£919,339	£372,051	£1,210,917	£490,051
The Wolds low value	£655,158	£265,139	£946,736	£383,139
The Wolds medium and high value	£887,906	£359,331	£1,179,484	£477,331
Bridlington medium and low value	£335,288	£135,689	£626,866	£253,689
Bridlington high value	£686,556	£277,845	£978,134	£395,845
Holderness medium and low	£219,014	£88,634	£510,592	£206,634
Holderness high	£569,508	£230,477	£861,086	£348,477
Goole low value	£183,846	£74,401	£475,424	£192,401
Goole medium value	£434,946	£176,020	£726,524	£294,020
Goole high value	£686,556	£277,845	£978,134	£395,845

The resulting site value thresholds illustrate a wide range of benchmarks from £1.2million per ha (£500,000 per acre) in the higher value parts of the District, to less than £200,000 per ha (under £100,000 per acre) in the lowest value parts of the District). These levels are considered to be at the lower end of the scale of site value that land owners will normally require and in certain circumstances may fall below requirements particularly where expectations have been set in better market conditions. Whilst they are considered to represent a reasonable guide for the purposes of this viability study, the land owner’s return is nonetheless a key variable around which a great deal of uncertainty exists and careful consideration to the sensitivity of site value expectation is required in the interpretation of viability results.

For the low, mid and high value scenarios, the above site value thresholds have been adjusted in line with the value level assumed in each scenario.

## 2.6 RESULTS AND INTERPRETATION

The results below provide an illustration of how the policies of the Local Plan affect development viability on residential developments. The results are set out in sequence of each market area, with tables summarising the results for Current build costs and revenues.

Each table displays the residual development appraisal results for each archetype presented as a £ per ha figure. The residual figure is colour graded according to how it relates to the site value threshold and duplicated for each of the two site value threshold typologies (greenfield and brownfield existing use value depicted by green and brown colours respectively). The various value scenarios are also illustrated in each table.

## 2.6.1 Beverley

At current values, there are contrasting results for greenfield and brownfield sites with the lower greenfield site value threshold showing all archetypes to be viable, but with the high brownfield based use value threshold resulting in a number of amber and red cells indicating they are becoming marginal, particularly so in the medium and low value areas of Beverley. Whilst the low value scenario introduces a greater level of red and amber, the mid and upper value scenarios indicate full viability against almost all archetypes.

In the Beverley area therefore, the viability of Local Plan policies in current market conditions is sensitive to the typology of site (with previously developed sites where land owners have a greater expectation of return linked to higher existing use values) and the value area. However, with the benefit of an improvement in market conditions, we would expect to see the majority of development sites being capable of accommodating the proposed policy standards.

**Table 2.9 Beverley current build costs (residual site values per ha)**

	Archetype	Current values (£ per ha)	Current values (£ per ha)	Low values (£ per ha)	Low values (£ per ha)	Mid values (£ per ha)	Mid values (£ per ha)	High values (£ per ha)	High values (£ per ha)		
Beverley	Medium	20 dph/0.5 ha	1,020,812	1,020,812	818,600	818,600	2,028,441	2,028,441	3,040,930	3,040,930	
		20 dph/3 ha	622,476	622,476	452,161	452,161	1,479,656	1,479,656	2,338,212	2,338,212	
	Medium	20 dph/5 ha	647,678	647,678	477,950	477,950	1,493,113	1,493,113	2,334,051	2,334,051	
		30 dph/0.5 ha	866,269	866,269	634,590	634,590	2,021,465	2,021,465	3,174,889	3,174,889	
	Medium	30 dph/3 ha	810,135	810,135	593,584	593,584	1,888,790	1,888,790	2,964,769	2,964,769	
		30 dph/5 ha	752,249	752,249	542,603	542,603	1,770,499	1,770,499	2,793,321	2,793,321	
	High	35 dph/0.5 ha	1,027,214	1,027,214	761,319	761,319	2,352,909	2,352,909	3,676,557	3,676,557	
		35 dph/3 ha	873,029	873,029	630,565	630,565	2,084,875	2,084,875	3,293,477	3,293,477	
	High	35 phd/5 ha	873,029	873,029	636,995	636,995	2,039,099	2,039,099	3,201,608	3,201,608	
		40 dph/0.5 ha	906,519	906,519	625,122	625,122	2,322,886	2,322,886	3,729,147	3,729,147	
	Low	40 dph/3 ha	922,246	922,246	652,610	652,610	2,272,379	2,272,379	3,614,088	3,614,088	
		40 dph/5 ha	901,485	901,485	646,381	646,381	2,154,993	2,154,993	3,404,213	3,404,213	
	25% AH	Medium	20 dph/0.5 ha	1,389,248	1,389,248	1,166,472	1,166,472	2,506,551	2,506,551	3,623,855	3,623,855
			20 dph/3 ha	909,818	909,818	724,790	724,790	1,853,173	1,853,173	2,796,890	2,796,890
Medium		20 dph/5 ha	934,910	934,910	751,652	751,652	1,864,408	1,864,408	2,797,469	2,797,469	
		30 dph/0.5 ha	1,247,453	1,247,453	994,498	994,498	2,518,694	2,518,694	3,785,728	3,785,728	
High		30 dph/3 ha	1,170,107	1,170,107	931,864	931,864	2,357,603	2,357,603	3,535,984	3,535,984	
		30 dph/5 ha	1,085,928	1,085,928	862,320	862,320	2,203,567	2,203,567	3,322,112	3,322,112	
High		35 dph/0.5 ha	1,470,740	1,470,740	1,180,090	1,180,090	2,935,111	2,935,111	4,390,764	4,390,764	
		35 dph/3 ha	1,278,286	1,278,286	1,008,117	1,008,117	2,604,787	2,604,787	3,931,745	3,931,745	
High		35 phd/5 ha	1,261,421	1,261,421	1,006,016	1,006,016	2,538,908	2,538,908	3,817,991	3,817,991	
		40 dph/0.5 ha	1,358,095	1,358,095	1,046,570	1,046,570	2,902,756	2,902,756	4,447,418	4,447,418	
High	40 dph/3 ha	1,370,339	1,370,339	1,074,524	1,074,524	2,850,914	2,850,914	4,326,694	4,326,694		
	40 dph/5 ha	1,320,898	1,320,898	1,044,828	1,044,828	2,700,012	2,700,012	4,063,313	4,063,313		

## 2.6.2 Hull Borders

At the current value scenario, the higher value archetypes with greenfield site value thresholds show all archetypes to be viable. Viability becomes compromised in low value areas and unviable for new development at densities of 40 units per hectare on sites ranging between 0.5 - 3 hectares. However, with the high brownfield based use value thresholds a number of amber and red cells indicate they are becoming marginal, particularly so in the low value areas of Hull Borders. Whilst the low value scenario introduces a greater level of red and amber, the upper value scenarios indicate full viability against all archetypes.

In the Hull Borders area therefore, the viability of Local Plan policies in current market conditions is sensitive to the typology of site and the value area. However, with the benefit of an improvement in market conditions, we would expect to see the majority of development sites being capable of accommodating the proposed policy standards.

**Table 2.10 Hull Borders current build costs (residual site values per ha)**

	Archetype	Current values	Current values	Low values	Low values	Mid values	Mid values	High values	High values	
		(£ per ha)	(£ per ha)	(£ per ha)	(£ per ha)	(£ per ha)	(£ per ha)	(£ per ha)	(£ per ha)	
<b>H u l l  2 5 %  A H</b>	<b>L o w</b>	20 dph/0.5 ha	707,212	707,212	523,851	523,851	1,620,591	1,620,591	2,533,970	2,533,970
		20 dph/3 ha	375,199	375,199	216,709	216,709	1,158,913	1,158,913	1,941,126	1,941,126
		20 dph/5 ha	402,567	402,567	246,607	246,607	1,173,052	1,173,052	1,943,702	1,943,702
		30 dph/0.5 ha	538,190	538,190	326,186	326,186	1,594,837	1,594,837	2,657,255	2,657,255
		30 dph/3 ha	500,694	500,694	301,736	301,736	1,488,828	1,488,828	2,474,570	2,474,570
		30 dph/5 ha	456,879	456,879	268,909	268,909	1,397,686	1,397,686	2,323,855	2,323,855
		35 dph/0.5 ha	646,071	646,071	403,041	403,041	1,857,269	1,857,269	3,068,466	3,068,466
		35 dph/3 ha	526,929	526,929	303,123	303,123	1,637,499	1,637,499	2,745,412	2,745,412
		35 phd/5 ha	535,983	535,983	318,557	318,557	1,606,652	1,606,652	2,670,322	2,670,322
		40 dph/0.5 ha	520,645	520,645	260,801	260,801	1,816,050	1,816,050	3,108,469	3,108,469
	40 dph/3 ha	535,961	535,961	286,532	286,532	1,770,742	1,770,742	3,002,517	3,002,517	
	40 dph/5 ha	537,210	537,210	305,638	305,638	1,691,654	1,691,654	2,835,756	2,835,756	
	<b>H i g h</b>	20 dph/0.5 ha	1,353,261	1,353,261	1,132,199	1,132,199	2,460,283	2,460,283	3,567,304	3,567,304
		20 dph/3 ha	879,447	879,447	695,008	695,008	1,814,127	1,814,127	2,749,152	2,749,152
		20 dph/5 ha	905,006	905,006	722,043	722,043	1,825,954	1,825,954	2,748,854	2,748,854
		30 dph/0.5 ha	1,206,591	1,206,591	955,582	955,582	2,465,441	2,465,441	3,721,218	3,721,218
		30 dph/3 ha	1,130,759	1,130,759	895,516	895,516	2,307,206	2,307,206	3,476,188	3,476,188
		30 dph/5 ha	1,049,822	1,049,822	827,896	827,896	2,157,525	2,157,525	3,265,822	3,265,822
35 dph/0.5 ha		1,423,789	1,423,789	1,135,375	1,135,375	2,873,469	2,873,469	4,316,187	4,316,187	
35 dph/3 ha		1,234,162	1,234,162	967,314	967,314	2,549,786	2,549,786	3,864,623	3,864,623	
35 phd/5 ha		1,220,322	1,220,322	966,667	966,667	2,486,295	2,486,295	3,753,695	3,753,695	
40 dph/0.5 ha		1,308,343	1,308,343	998,506	998,506	2,838,790	2,838,790	4,369,237	4,369,237	
40 dph/3 ha	1,328,274	1,328,274	1,029,119	1,029,119	2,789,751	2,789,751	4,252,043	4,252,043		
40 dph/5 ha	1,274,875	1,274,875	1,002,510	1,002,510	2,638,937	2,638,937	3,994,575	3,994,575		



## 2.6.3 The Wolds

At current build costs, the lower greenfield site value thresholds show all archetypes to be viable. In contrast, the high brownfield based use value threshold results in a number of amber and red cells indicating they are becoming marginal. In low value market conditions, red indicators demonstrate that development is unviable against all archetypes in low, medium and high value areas. In contrast in a rising market, where mid and high sales values can be achieved, green indicators against both greenfield and brownfield thresholds demonstrate viability.

**Table 2.11 The Wolds Current Build Costs (residual site values per ha)**

		Archetype	Current values (£ per ha)	Current values (£ per ha)	Low values (£ per ha)	Low values (£ per ha)	Mid values (£ per ha)	Mid values (£ per ha)	High values (£ per ha)	High values (£ per ha)	
<b>The Wolds</b>	<b>L</b> <b>o</b> <b>w</b>	20 dph/0.5 ha	935,129	935,129	660,944	738,058	1,917,054	1,917,054	2,901,183	2,901,183	
		20 dph/3 ha	526,054	526,054	294,050	360,567	1,355,622	1,355,622	2,182,812	2,182,812	
		20 dph/5 ha	556,023	556,023	326,581	392,609	1,375,313	1,375,313	2,188,286	2,188,286	
		30 dph/0.5 ha	731,815	731,815	419,432	508,047	1,846,761	1,846,761	2,959,761	2,959,761	
		30 dph/3 ha	689,072	689,072	396,086	475,953	1,728,616	1,728,616	2,767,354	2,767,354	
		30 dph/5 ha	628,486	628,486	350,782	432,032	1,615,882	1,615,882	2,592,420	2,592,420	
		35 dph/0.5 ha	878,261	878,261	520,538	621,148	2,159,357	2,159,357	3,438,216	3,438,216	
		35 dph/3 ha	735,975	735,975	405,809	496,019	1,902,657	1,902,657	3,069,045	3,069,045	
		35 dph/5 ha	741,978	741,978	423,631	510,869	1,867,715	1,867,715	2,990,143	2,990,143	
		40 dph/0.5 ha	729,359	729,359	346,485	452,959	2,086,946	2,086,946	3,435,120	3,435,120	
	40 dph/3 ha	772,046	772,046	403,402	509,100	2,069,555	2,069,555	3,367,245	3,367,245		
	40 dph/5 ha	761,643	761,643	415,479	510,072	1,971,267	1,971,267	3,177,885	3,177,885		
	<b>25%</b> <b>A</b> <b>H</b>	<b>M</b> <b>e</b> <b>d</b> <b>i</b> <b>u</b> <b>m</b>	20 dph/0.5 ha	1,303,565	1,303,565	1,085,930	1,085,930	2,395,164	2,395,164	3,486,763	3,486,763
			20 dph/3 ha	837,504	837,504	654,983	654,983	1,759,172	1,759,172	2,681,160	2,681,160
			20 dph/5 ha	863,632	863,632	682,301	682,301	1,771,832	1,771,832	2,684,355	2,684,355
			30 dph/0.5 ha	1,150,163	1,150,163	903,045	903,045	2,390,620	2,390,620	3,629,435	3,629,435
			30 dph/3 ha	1,077,212	1,077,212	846,449	846,449	2,236,962	2,236,962	3,391,017	3,391,017
		30 dph/5 ha	999,954	999,954	781,277	781,277	2,092,711	2,092,711	3,185,635	3,185,635	
		<b>H</b> <b>i</b> <b>g</b> <b>h</b>	35 dph/0.5 ha	1,358,952	1,358,952	1,075,009	1,075,009	2,786,881	2,786,881	4,210,097	4,210,097
			35 dph/3 ha	1,173,561	1,173,561	912,219	912,219	2,472,372	2,472,372	3,769,033	3,769,033
35 dph/5 ha			1,163,353	1,163,353	913,530	913,530	2,412,214	2,412,214	3,662,106	3,662,106	
40 dph/0.5 ha			1,239,639	1,239,639	933,868	933,868	2,748,764	2,748,764	4,257,889	4,257,889	
40 dph/3 ha	1,260,161		1,260,161	967,575	967,575	2,703,663	2,703,663	4,145,714	4,145,714		
40 dph/5 ha	1,213,907	1,213,907	945,211	945,211	2,561,954	2,561,954	3,896,626	3,896,626			

## 2.6.4 Bridlington

In Bridlington several archetypes in higher value areas can withstand planning obligations in the current market conditions against greenfield thresholds. Medium and low value areas are compromised in low and current market conditions when measured against both greenfield and brownfield use thresholds. Significant improvements in market conditions (mid and high values) would be required to enable development to be viable.

**Table 2.12 Bridlington Current build costs (residual site values per ha)**

		Archetype	Current values (£ per ha)	Current values (£ per ha)	Low values (£ per ha)	Low values (£ per ha)	Mid values (£ per ha)	Mid values (£ per ha)	High values (£ per ha)	High values (£ per ha)	
<b>Bridlington</b>	<b>Medium &amp; Low</b>	20 dph/0.5 ha	429,600	429,600	263,376	263,376	1,259,010	1,259,010	2,088,419	2,088,419	
		20 dph/3 ha	169,608	169,608	23,816	23,816	892,210	892,210	1,613,974	1,613,974	
		20 dph/5 ha	184,510	184,510	40,720	40,720	893,643	893,643	1,599,329	1,599,329	
		30 dph/0.5 ha	358,519	358,519	157,757	157,757	1,360,463	1,360,463	2,362,503	2,362,503	
		30 dph/3 ha	261,973	261,973	74,646	74,646	1,178,600	1,178,600	2,089,330	2,089,330	
		30 dph/5 ha	233,367	233,367	52,686	52,686	1,105,869	1,105,869	1,971,301	1,971,301	
		35 dph/0.5 ha	274,716	274,716	52,431	52,431	1,373,595	1,373,595	2,472,794	2,472,794	
		35 dph/3 ha	273,571	273,571	62,156	62,156	1,311,888	1,311,888	2,341,148	2,341,148	
		35 phd/5 ha	265,195	265,195	59,250	59,250	1,255,253	1,255,253	2,238,015	2,238,015	
		40 dph/0.5 ha	343,695	343,695	95,237	95,237	1,583,766	1,583,766	2,824,012	2,824,012	
		40 dph/3 ha	312,796	312,796	76,076	76,076	1,480,984	1,480,984	2,645,573	2,645,573	
		40 dph/5 ha	299,031	299,031	69,694	69,694	1,385,507	1,385,507	2,456,541	2,456,541	
	<b>200% AH</b>	<b>High</b>	20 dph/0.5 ha	984,825	984,825	786,041	786,041	1,980,459	1,980,459	2,983,229	2,983,229
			20 dph/3 ha	620,018	620,018	450,869	450,869	1,475,402	1,475,402	2,334,875	2,334,875
			20 dph/5 ha	627,338	627,338	462,816	462,816	1,465,678	1,465,678	2,302,358	2,302,358
			30 dph/0.5 ha	992,434	992,434	754,499	754,499	2,184,162	2,184,162	3,377,942	3,377,942
			30 dph/3 ha	828,288	828,288	612,517	612,517	1,910,860	1,910,860	2,994,522	2,994,522
			30 dph/5 ha	776,295	776,295	565,494	565,494	1,798,512	1,798,512	2,824,260	2,824,260
			35 dph/0.5 ha	943,099	943,099	683,750	683,750	2,242,080	2,242,080	3,543,297	3,543,297
			35 dph/3 ha	913,235	913,235	670,858	670,858	2,135,035	2,135,035	3,358,142	3,358,142
35 phd/5 ha	879,661	879,661	644,575	644,575	2,045,916	2,045,916	3,212,777	3,212,777			
40 dph/0.5 ha	1,108,646	1,108,646	817,124	817,124	2,575,607	2,575,607	4,056,646	4,056,646			
40 dph/3 ha	1,038,807	1,038,807	767,140	767,140	2,425,884	2,425,884	3,799,917	3,799,917			
40 dph/5 ha	974,391	974,391	720,025	720,025	2,245,988	2,245,988	3,519,056	3,519,056			

## 2.6.5 Holderness

Table 2.13 below indicates that archetypes in high value areas can marginally withstand planning obligations in the current climate and a significant improvement in market conditions (mid and high) is required for development to be viable. In medium and low value areas development is compromised in current and low market conditions.

**Table 2.13 Holderness current build costs (residual site values per ha)**

		Archetype	Current values (£ per ha)	Current values (£ per ha)	Low values (£ per ha)	Low values (£ per ha)	Mid values (£ per ha)	Mid values (£ per ha)	High values (£ per ha)	High values (£ per ha)
H o l d e r n e s  1 5 %  A H	M e d i u m & L o w	20 dph/0.5 ha	246,239	246,239	92,010	92,010	1,020,812	1,020,812	1,795,384	1,795,384
		20 dph/3 ha	117,439	117,439	-24,630	-24,630	824,215	824,215	1,530,315	1,530,315
		20 dph/5 ha	90,670	90,670	-48,226	-48,226	776,150	776,150	1,455,147	1,455,147
		30 dph/0.5 ha	300,486	300,486	104,408	104,408	1,285,232	1,285,232	2,269,979	2,269,979
		30 dph/3 ha	105,902	105,902	-69,905	-69,905	978,192	978,192	1,846,089	1,846,089
		30 dph/5 ha	124,659	124,659	-50,357	-50,357	969,041	969,041	1,803,674	1,803,674
		35 dph/0.5 ha	330,368	330,368	104,859	104,859	1,446,177	1,446,177	2,561,987	2,561,987
		35 dph/3 ha	111,777	111,777	-89,133	-89,133	1,100,625	1,100,625	2,084,203	2,084,203
	H i g h	35 phd/5 ha	115,963	115,963	-81,811	-81,811	1,069,108	1,069,108	2,010,135	2,010,135
		40 dph/0.5 ha	366,462	366,462	118,125	118,125	1,613,663	1,613,663	2,860,826	2,860,826
		40 dph/3 ha	102,608	102,608	-122,400	-122,400	1,213,784	1,213,784	2,316,385	2,316,385
		40 dph/5 ha	96,124	96,124	-123,743	-123,743	1,133,407	1,133,407	2,149,153	2,149,153
		20 dph/0.5 ha	799,750	799,750	611,248	611,248	1,740,547	1,740,547	2,681,999	2,681,999
		20 dph/3 ha	602,353	602,353	433,397	433,397	1,452,912	1,452,912	2,305,439	2,305,439
		20 dph/5 ha	554,206	554,206	391,260	391,260	1,372,107	1,372,107	2,185,385	2,185,385
		30 dph/0.5 ha	1,004,188	1,004,188	764,537	764,537	2,200,262	2,200,262	3,396,337	3,396,337
30 dph/3 ha	697,625	697,625	484,265	484,265	1,738,138	1,738,138	2,780,466	2,780,466		
30 dph/5 ha	696,524	696,524	492,678	492,678	1,700,575	1,700,575	2,703,038	2,703,038		
35 dph/0.5 ha	1,127,727	1,127,727	856,181	856,181	2,482,992	2,482,992	3,838,256	3,838,256		
35 dph/3 ha	777,929	777,929	539,809	539,809	1,960,588	1,960,588	3,141,823	3,141,823		
35 phd/5 ha	762,490	762,490	530,160	530,160	1,891,785	1,891,785	3,021,193	3,021,193		
40 dph/0.5 ha	1,259,068	1,259,068	954,191	954,191	2,772,542	2,772,542	4,287,418	4,287,418		
40 dph/3 ha	849,438	849,438	583,280	583,280	2,174,383	2,174,383	3,497,664	3,497,664		
40 dph/5 ha	800,144	800,144	551,275	551,275	2,024,316	2,024,316	3,244,480	3,244,480		

## 2.6.6 Goole

Table 2.14 below demonstrates that in current market conditions and application of the appropriate affordable housing policy requirement (25% in high value areas, 20% in medium value areas and 5% in low value areas), development is only viable in high value areas of Goole which can withstand planning obligations in current market conditions when tested solely against greenfield site value thresholds. However in medium and low value areas the red indicators show that development is unviable against both greenfield and brownfield use thresholds.

Market conditions would need to improve significantly (mid to high) in medium value areas and development to enable development to be viable against both greenfield and brownfield site value thresholds.

**Table 2.14 Goole current build costs (residual site values per ha) 25%, 20% and 5% affordable housing**

	Archetype	ha	Current values		Low values		Mid values		High values	
			(£ per ha)	(£ per ha)	(£ per ha)	(£ per ha)	(£ per ha)	(£ per ha)	(£ per ha)	(£ per ha)
Goole High 25% AH	20 dph/0.5 ha	0.5	986,538	986,538	786,041	786,041	1,982,173	1,982,173	2,984,977	2,984,977
	20 dph/3 ha	3.00	569,709	569,709	401,768	401,768	1,410,594	1,410,594	2,253,140	2,253,140
	20 dph/5 ha	5.00	598,887	598,887	433,753	433,753	1,431,592	1,431,592	2,256,430	2,256,430
	30 dph/0.5 ha	0.50	790,189	790,189	562,529	562,529	1,920,701	1,920,701	3,053,160	3,053,160
	30 dph/3 ha	3.00	740,789	740,789	527,052	527,052	1,797,475	1,797,475	2,854,401	2,854,401
	30 dph/5 ha	5.00	681,252	681,252	477,719	477,719	1,681,061	1,681,061	2,684,355	2,684,355
	35 dph/0.5 ha	0.50	945,334	945,334	683,750	683,750	2,244,316	2,244,316	3,545,533	3,545,533
	35 dph/3 ha	3.00	793,368	793,368	553,409	553,409	1,980,045	1,980,045	3,166,753	3,166,753
	35 phd/5 ha	5.00	798,856	798,856	566,559	566,559	1,942,017	1,942,017	3,084,129	3,084,129
	40 dph/0.5 ha	0.50	801,353	801,353	519,209	519,209	2,177,808	2,177,808	3,550,176	3,550,176
	40 dph/3 ha	3.00	835,350	835,350	568,764	568,764	2,155,779	2,155,779	3,475,904	3,475,904
	40 dph/5 ha	5.00	821,674	821,674	570,407	570,407	2,050,968	2,050,968	3,278,579	3,278,579
Goole Medium 20% AH	20 dph/0.5 ha	0.5	588,970	588,970	414,177	414,177	1,466,362	1,466,362	2,343,754	2,343,754
	20 dph/3 ha	3.00	279,621	279,621	127,517	127,517	1,033,242	1,033,242	1,787,602	1,787,602
	20 dph/5 ha	5.00	295,559	295,559	144,841	144,841	1,033,019	1,033,019	1,771,006	1,771,006
	30 dph/0.5 ha	0.50	518,615	518,615	309,396	309,396	1,568,812	1,568,812	2,619,264	2,619,264
	30 dph/3 ha	3.00	398,512	398,512	205,001	205,001	1,352,529	1,352,529	2,309,066	2,309,066
	30 dph/5 ha	5.00	360,538	360,538	175,909	175,909	1,268,043	1,268,043	2,170,347	2,170,347
	35 dph/0.5 ha	0.50	426,636	426,636	198,588	198,588	1,571,350	1,571,350	2,718,659	2,718,659
	35 dph/3 ha	3.00	428,089	428,089	209,333	209,333	1,504,975	1,504,975	2,581,738	2,581,738
	35 phd/5 ha	5.00	413,170	413,170	202,171	202,171	1,450,458	1,450,458	2,468,344	2,468,344
	40 dph/0.5 ha	0.50	523,101	523,101	265,269	265,269	1,818,290	1,818,290	3,111,444	3,111,444
	40 dph/3 ha	3.00	491,915	491,915	244,380	244,380	1,707,186	1,707,186	2,923,275	2,923,275
	40 dph/5 ha	5.00	460,938	460,938	231,621	231,621	1,593,122	1,593,122	2,716,351	2,716,351
Goole Low 5% AH	20 dph/0.5 ha	0.5	193,116	193,116	40,600	40,600	950,552	950,552	1,709,701	1,709,701
	20 dph/3 ha	3.00	166,305	166,305	20,774	20,774	886,185	886,185	1,607,332	1,607,332
	20 dph/5 ha	5.00	138,160	138,160	-1,311	-1,311	831,374	831,374	1,523,395	1,523,395
	30 dph/0.5 ha	0.50	232,948	232,948	39,049	39,049	1,195,908	1,195,908	2,161,047	2,161,047
	30 dph/3 ha	3.00	155,011	155,011	-25,229	-25,229	1,038,857	1,038,857	1,921,005	1,921,005
	30 dph/5 ha	5.00	190,780	190,780	10,486	10,486	1,050,362	1,050,362	1,903,640	1,903,640
	35 dph/0.5 ha	0.50	253,841	253,841	34,135	34,135	1,344,965	1,344,965	2,438,557	2,438,557
	35 dph/3 ha	3.00	178,827	178,827	-26,397	-26,397	1,185,715	1,185,715	2,186,309	2,186,309
	35 phd/5 ha	5.00	196,455	196,455	-1,311	-1,311	1,167,526	1,167,526	2,130,981	2,130,981
	40 dph/0.5 ha	0.50	280,924	280,924	35,347	35,347	1,500,531	1,500,531	2,722,884	2,722,884
	40 dph/3 ha	3.00	203,038	203,038	-28,481	-28,481	1,342,174	1,342,174	2,475,391	2,475,391
	40 dph/5 ha	5.00	167,254	167,254	-56,494	-56,494	1,216,056	1,216,056	2,250,504	2,250,504

## 3 Conclusions and policy implications

### 3.1 CONCLUSIONS

Of the three policy standards tested, the minimum housing density requirement of 30 units per ha does not in any way impinge on development viability. Affordable housing requirements and the required contribution to sport, recreation and open space (average £3,000 per unit) do introduce significant cost to development and the combined impact of these standards has a variable impact in across the District.

Overall, residential development viability in current market conditions is sensitive to land owners' expectations of return. It is evident that when development is measured against greenfield thresholds (as opposed to brownfield thresholds), that there is greater scope for positive viability across the East Riding. Given the limited number of residential allocations made in the emerging East Riding Local Plan on previously developed sites, it is considered that in most cases a site value threshold based on the greenfield land use is the most applicable. There are also many differences within market areas which impact on residential development viability levels including location and the size and density of the development.

In current market conditions, there are several areas that appear viable and able to withstand the proposed policy standards. These are focused on the rural higher value locations including Beverley and The Wolds, and in some of the Major Haltemprice Settlement areas close to the Hull border. Yet there are others such as Goole, Holderness and Bridlington which demonstrate marginal viability.

With the benefit of an improvement in market conditions, most, if not all areas across the East Riding of Yorkshire display improved viability with the proposed policy standards being met. However it should be noted that whilst market improvement is likely, it is not guaranteed and the scale of any improvement is difficult to predict. Therefore Local Plan policies should not rely entirely on the scale of market improvement indicated by the 'high value scenario' included in this report.

The impact of a greater degree of site abnormalities than that allowed for in the above appraisals and the introduction of a Community Infrastructure Levy could result in further costs which would affect viability in some locations. If market conditions were to worsen or new legislation relating to building standards regarding the Code for Sustainable Homes were to be enacted through building regulations, the viability assessments may need to be revisited so as to take this into account.

Overall therefore, whilst the evidence suggests some locations may have difficulties in the short term in being able to withstand all proposed policy standards, over the course of the Local Plan period it is reasonable to expect that development is likely to be able to meet the proposed policies in the majority of cases given the probability of some improvement in market conditions. Still, there is a need for caution in how policies are constructed to ensure there is flexibility and that they do not put at risk development in certain locations in the short term. Therefore a cautious approach is recommended, particularly to safeguard prospects for development in Goole, Holderness and Bridlington where viability is generally marginal. The introduction of Local Plan policies on a 'subject to viability' basis, where appropriate, will assist in this regard.