East Devon District Council

Cranbrook Plan DPD Addendum Viability Report

June 2021

Three Dragons with Ward Williams Associates

June 2021
Three Dragons with WWA

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Three Dragons with WWA

EXECUTIVE SUMMARY

1. This report is an addendum to the July 2020 report PSD 21 A and PSD 21B and should be read in conjunction with these documents. It includes the sensitivity tests required by the Inspector in her letter of 20th January as well as providing a set of clarifications on viability matters.

2. The starting point for these sensitivity tests has changed to reflect the reduction of £12.9m in the infrastructure costs now required by EDDC. In other respects, the base case for the viability testing remains unchanged. Sensitivity tests were undertaken individually and in combination to:

    - Vary the developer return on market housing and the contractor return on affordable housing
    - Increase the dwelling build costs
    - Increase finance cost by bringing land purchase forward
    - Reduce affordable housing provision
    - Include a repayable infrastructure loan of £30m

3. The sensitivity tests showed that the largest impact on viability was from increasing build costs. However, the cost consultants (WWA) have confirmed that the lower quartile costs used in the base testing remain suitable for the planned development in the expansion of Cranbrook (appendix 2). Notwithstanding this, even when different scenarios including higher build costs are tested in combination, the estimated deficit is less than the developer return, suggesting that if costs do rise in this way during the course of the development, in theory the expansion should still be able to proceed.

4. The clarifications indicate that:

    - The calculation of affordable housing contractors return on costs is compliant with PPG and is within the range of approaches seen in other recent local plan and CIL examinations as part of studies by Three Dragons and other viability practitioners.
    - The use of 3% of value for the sales and marketing costs for market housing is within the range of allowances used in other recent local plan and CIL examinations as part of studies by Three Dragons and other viability practitioners, and can be considered within the range of industry norms.

5. The approach taken for the viability testing in Cranbrook is consistent with earlier area-wide local studies, apart from where guidance has subsequently changed and/or site-specific information is available to replace broad area allowances.

6. The addendum also includes detail relating to the specification and costs for the gypsy and traveller provision included within the Cranbrook expansion.

1 Introduction

1.1.1 This Addendum report has been prepared to address the viability matters raised in the Inspectors letter of 20th January 2021 PSD 33 and the subsequent clarifications PSD33B. It covers:

- The sensitivity tests referred to in the letter, with the specification of these tests refined as part of the dialogue between East Devon District Council (EDDC) and the examination participants
- Clarification on the following matters:
  - Developer Return on Affordable Housing – para 34
  - Sales/Marketing costs – para 38
  - Gypsy and Traveller sites – paras 40 and 41
  - Sensitivity testing and consistency with other Three Dragons viability work – para 60

1.1.2 The sensitivity tests have been undertaken based on the revised IDP provided by EDDC. The net effect of these revisions is to reduce the costs (and risk) as well as refine some timings, and these changes are made within the viability testing to form the new baseline. The rest of the assumptions in the baseline remain unchanged.

2 Sensitivity tests

2.1 Introduction

2.1.1 The sensitivity tests all use the revised infrastructure costs, based on the items identified during the November 2020 hearings and further items identified by East Devon District Council. While most of these changes reduced or removed costs, one of the changes increased costs (changing/clubhouse facilities). In total the net changes reduce the s106, infrastructure and other construction costs by £12.9m.

2.1.2 In addition, East Devon has made some revisions to the timing of remaining items. In combination these changes form the new base case, which in other respects uses the same testing assumptions as the work undertaken in July 2020. The assessment date remains at Q1 2020.

Table 2.1 Infrastructure cost changes

Typology	Infrastructure item	Original value	Cost change identified	Allowance in revised base
Transport	C – New pedestrian bridge (items 5 and 6 in IDP) allowance	£2,856,000	-£2,356,000	£500,000
Transport	L – New three arm roundabout to provide access to Cobdens lane and the Cobdens expansion area	£1,832,000	-£1,332,000	£500,000
Healthcare	Health and Well-being Hub building	£8,769,000	-£1,769,000	£7,000,000
Public Services	"Blue Light" Emergency services facility	£1,900,000	-£380,000	£1,520,000
Public Services	Town Council Office	£2,000,000	-£2,000,000	£0
Sport and Recreation	Artificial Grass Sports Pitches	£314,000	-£314,000	£0
Sport and Recreation	Changing/clubhouse facilities and car parking for sports pitches	£676,000	£674,000	£1,350,000
Sport and Recreation	Cricket	£310,000	-£310,000	£0
Sport and Recreation	Bowls	£50,000	-£50,000	£0
Energy	Underground high voltage electricity power lines	£2,805,000	-£2,805,000	£0
Energy	Underground high voltage electricity power lines	£2,295,000	-£2,295,000	£0
	Total saving		-£12,937,000	

2.1.3 Table 2.2 sets out the base case and sensitivity tests undertaken.

Table 2.2 Sensitivity tests

Developer and contractor return	
Base case	17.5% return on market housing value and 6% return on affordable housing costs.
A - Market housing return sensitivity 1	Market housing return 18.75%

B - Market housing return sensitivity 2	Market housing return 20%
C - Affordable housing sensitivity 1	Affordable housing return 6% of value instead of costs
Dwelling Build cost	
Base case	Lower quartile BCIS
D - Build Cost Sensitivity 1	Mid-point median and lower quartile BCIS
E - Build Cost Sensitivity 2	Median BCIS
F - Build Cost Sensitivity 3	Mid-point median and upper quartile BCIS
G - Build Cost Sensitivity 4	Upper quartile BCIS
Finance cost	
Base	Land purchase 50% at outset and 50% in advance of development mid-point
H - Finance costs sensitivity 1	Land purchase 75% April 2020 and 25% April 2026
Affordable housing	
Base	15% affordable housing
I - Affordable housing sensitivity 1	12.5% affordable housing
J - Affordable housing sensitivity 2	10% affordable housing
Infrastructure funding	
Base	No infrastructure funding
K - Funding sensitivity 1	£30m loan at 2.25% repayable on housing completions

2.1.4 The Council is providing further information within separate clarifications about how the sensitivity test K infrastructure loan scheme may be implemented.

2.1.5 Appendix 1 provides some technical notes about the way the sensitivity tests are applied in the HCA DAT model.

2.1.6 These tests were undertaken individually and in the following combinations. The shading in the table denotes where the changes away from the base case are made.

Table 2.3 Sensitivity test combinations

Test	Developer Return	Affordable return	Build Cost BCIS	Land Phasing	AH provision
June 2021 Base	17.50%	6% build cost	LQ	50% upfront, 50% at 50% of development	15.0%
1 - Higher build, returns and finance costs	20.00%	6% GDV	UQ	75% upfront, 25% at 50% of development	15.0%
2 - Higher build, returns and finance costs - no affordable housing	20.00%	6% GDV	UQ	75% upfront, 25% at 50% of development	0.0%

Test	Developer Return	Affordable return	Build Cost BCIS	Land Phasing	AH provision
3 - Higher returns	18.75%	6% GDV	LQ	50% upfront, 50% at 50% of development	15.0%
4 - Higher returns & higher finance	18.75%	6% GDV	LQ	75% upfront, 25% at 50% of development	15.0%
5 - Higher returns & higher build cost	18.75%	6% GDV	Average LQ & Median	50% upfront, 50% at 50% of development	15.0%
6 - Higher returns, higher build cost,12.5%AH	18.75%	6% GDV	Average LQ & Median	50% upfront, 50% at 50% of development	12.5%
7 - Higher build, returns and finance costs - 15%AH	20.00%	6% GDV	Average LQ & Median	75% upfront, 25% at 50% dev	15.0%

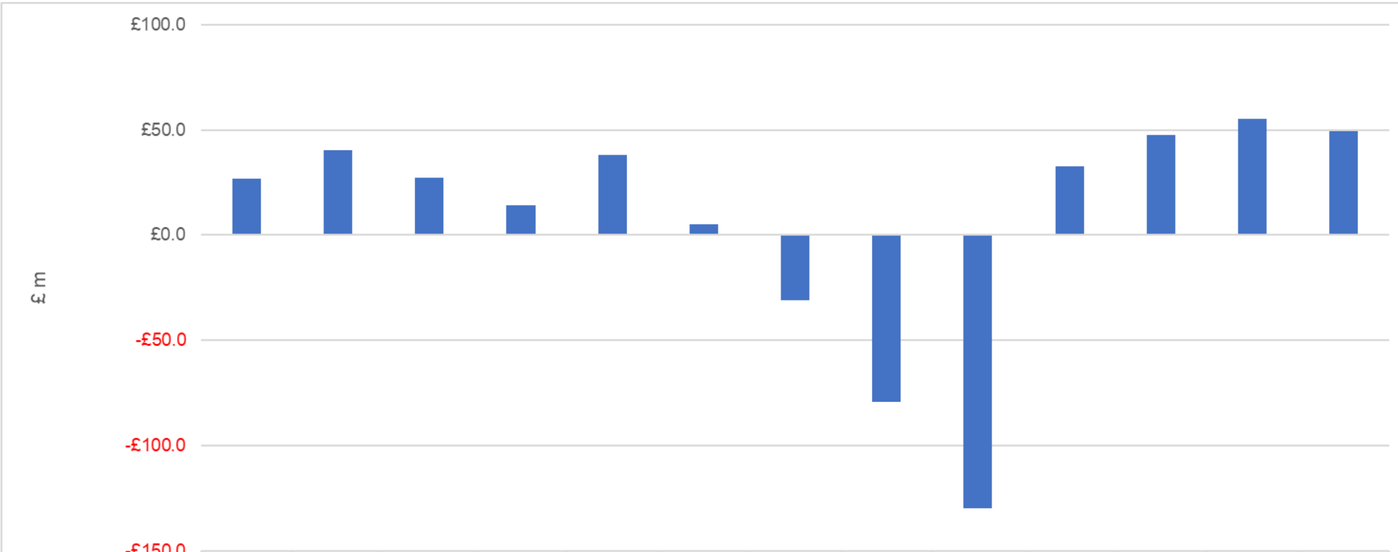
2.2 Sensitivity testing results

2.2.1 The sensitivity tests are undertaken individually and in combination. The individual tests are labelled A-K and the combination tests are labelled 1-7. Further detail can be found in Appendix 3.

Individual sensitivity tests

2.2.2 Figure 2.1 summarises the results of the individual sensitivity tests A-K.

Figure 2.1 Individual sensitivity test results



	July 2020 Base	June 2021 Base	A - Return Sensitivity 1	B - Return Sensitivity 2	C - Affordable Return Sensitivity 1	D - Build Cost Sensitivity 1	E - Build Cost Sensitivity 2	F - Build Cost Sensitivity 3	G - Build Cost Sensitivity 4	H - Finance Sensitivity 1	I - Affordable Housing Sensitivity 1	J - Affordable Housing Sensitivity 2	K - £30m infrastructure loan funding
Surplus/ deficit £m	£26.8	£40.3	£27.2	£14.1	£38.1	£5.0	-£31.0	-£79.4	-£129.9	£32.7	£47.7	£55.0	£49.2

Individual sensitivity tests commentary

2.2.3 **Base** - The revised baseline with a £12.9m reduction in infrastructure costs strengthens the viability, with the surplus after all costs and developer return rising from £26.8m to £40.4m. Within this, the lower cost base also reduces the finance charges.

2.2.4 If the surplus is considered as additional return and added to the operating profit (i.e. total market, affordable and commercial return) then the overall return plus surplus for the June 2021 baseline is 19.7% of total GDV (compared to 18.6% in the July 2020 baseline).

2.2.5 **Sensitivity A and B** - Increasing the developer return on market housing to 18.75% and 20% reduces the surplus to £27.1m and £14.1m respectively. This can be expressed as changing the market housing return from £183m to £196m (18.75%) and £209m (20%).

2.2.6 **Sensitivity C -** Changing the affordable contractor return from 6% of costs to 6% of value increases the return on affordable housing from £3.5m to £5.6m. This change in return is relatively small at 0.18% of total GDV.

2.2.7 **Sensitivity D-G** - Build costs represent a major component of the expansion areas costs and the sensitivity increases have a significant effect on viability. This is partly because changes here will also affect plot costs and professional fees (as these are a percentage of build costs), as well as affordable housing return where this is linked to build costs.

- **Sensitivity D** - Using the mid-point between median and lower quartile adds £35m to costs (including plot and fee costs as well as subsequent finance costs) and reduces the surplus to £5m.
- **Sensitivity E** - Using median adds £71m to costs and puts the viability into a deficit of £31m.
- **Sensitivity F** - Using the mid-point between median and upper quartile adds £120m to costs and results in a deficit of £79m.

- **Sensitivity G** - Using upper quartile adds £170m to costs and results in a deficit of £130m.

2.2.8 **Sensitivity H** - Moving the land purchase costs forward increases the finance costs by £7.6m compared to the base case, which reduces the surplus to £32.7m.

2.2.9 **Sensitivity I and J** - Reducing the proportion of affordable housing to 12.5% and 10% increases the surplus by £7.4m and £14.8m respectively compared to the base case.

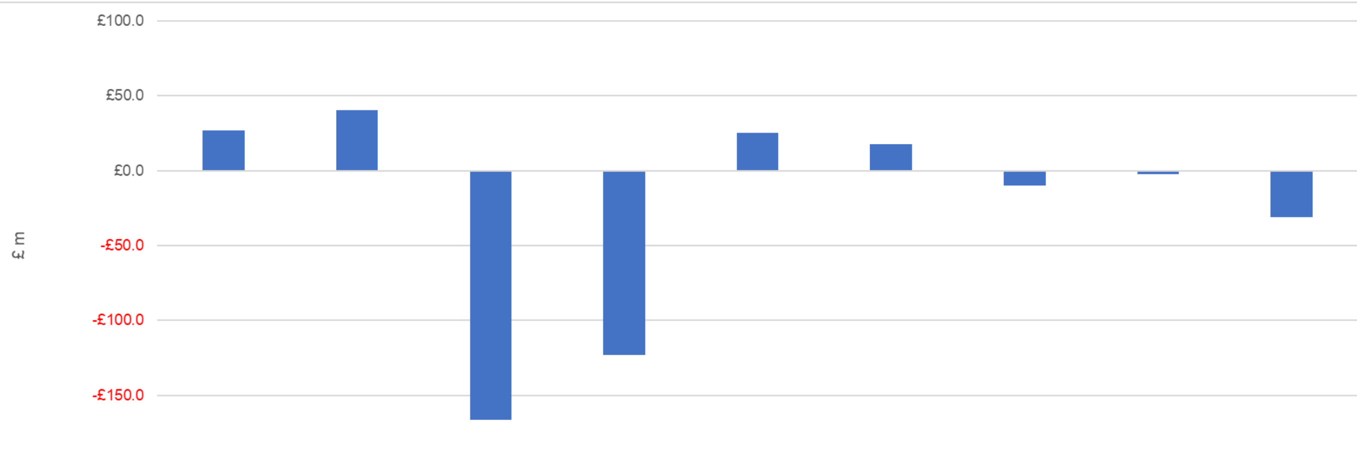
2.2.10 **Sensitivity K** - Introducing a repayable loan of £30m increases the surplus by £8.9m. The availability of public sector support has been a factor in Cranbrook Phase 1 and is a consideration in the assessment of risks in the Cranbrook expansion.

2.2.11 Overall, each of the individual sensitivity tests would leave the expansion of Cranbrook viable except for increases in dwelling build costs above the mid-point between median and lower quartile. We note that while the scheme is clearly sensitive to higher build costs, the cost consultants Ward Williams Associates (WWA)[1] have confirmed that the lower quartile costs used in the base testing remain suitable for the planned development in the expansion of Cranbrook (see Appendix 2).

Combination sensitivity tests

2.2.12 Figure 2.2 summarises the results of the combination sensitivity tests 1-6.

Figure 2.2 Combined sensitivity test results



	July 2020 Base	June 2021 Base	1 - Higher build, returns and finance costs	2 - Higher build, returns and finance costs - no affordable housing	3 - Higher returns	4 - Higher returns & higher finance	5 - Higher returns & higher build cost	6 - Higher returns, higher build cost, 12.5%AH	7 - Higher build, returns and finance costs - 15%AH
Surplus/ deficit £m	£26.8	£40.3	-£166.2	-£123.3	£25.0	£17.5	-£10.1	-£2.6	-£31.0

Combined sensitivity tests commentary

2.2.13 The combination of higher build costs (upper quartile), higher market housing and affordable returns (20% and 6% of GDV respectively) and higher finance costs results in a deficit of £166m (Test 1).

- The majority of this deficit results from the higher build costs.

[1] WWA is a firm of specialist quantity surveyors https://wwa.uk.com/. The cost advice for the expansion of Cranbrook was provided by staff based in Devon.

- This combination is also tested with no affordable housing and this still results in a large deficit of £123m (Test 2).
- Both the £166m (with affordable housing) and £123m (without affordable housing) deficits are less than the risk related developer returns of £215.9m and £249.2m respectively. This means that should these substantial changes happen during the course of the development then in theory[2] the expansion should still be able to proceed as the risk of changed viability is already built into the developer return. Although much reduced in these circumstances, there would still be a return.

2.2.14 Combining higher market housing returns and affordable housing returns (18.75% and 6% of GDV respectively) reduces the surplus from the baseline £40.4m to £25m (Test 3).

2.2.15 Combining higher market housing returns and affordable housing returns with higher finance costs (land purchase being brought forward) reduces the surplus to £17.5m (Test 4).

2.2.16 Combining higher returns with a higher build cost (mid-point between lower quartile and median) results in a deficit of £10.1m (Test 5). Within this scenario, if the affordable housing is reduced to 12.5% then the deficit is reduced to £2.6m (Test 6). This represents 0.22% of total GDV and can be considered marginal[3]. If higher finance costs are added to the higher returns, then with 15% affordable housing the deficit is £31m (Test 7).

2.2.17 Overall, combining some of the individual sensitivity tests continues to result in viable scenarios. Of those that produce marginal or unviable results, all include higher build costs. As noted above, the cost consultants have confirmed that the lower quartile costs used in the base testing remain suitable for the planned development in the expansion of Cranbrook. This notwithstanding, if costs rise to the levels in these sensitivity scenarios during the course of development, then the scale of the developer returns means that delivery should still be able to continue.

[2] Paragraph: 009 Reference ID: 10-009-20190509 – "…As the potential risk to developers is already accounted for in the assumptions for developer return in viability assessment, realisation of risk does not in itself necessitate further viability assessment or trigger a review mechanism."

[3] London Mayor's CIL 1 examination report 2012, para 48 https://www.lbbd.gov.uk/sites/default/files/attachments/EV20-Mayoral-CIL-Final-Report.pdf states that "... 1% (*of GDV*) is within the margin of error for most valuations and cannot be said to generally represent an intolerable burden. …"

3 Other Matters

3.1 Introduction

3.1.1 The Inspector's letter to East Devon District Council of 20th January 2021 requested further information on the following matters:

- Developer Return on Affordable Housing – para 34
- Sales/Marketing costs – para 38
- Gypsy and Traveller sites – paras 40 and 41
- Sensitivity testing and consistency with other Three Dragons viability work – para 60

3.1.2 These matters are discussed below.

3.2 Affordable housing return

3.2.1 In the Inspector's letter the Council is requested to clarify why the 6% return on affordable housing is based on build costs rather than GDV.

3.2.2 Planning Practice Guidance includes the following within Paragraph: 018 Reference ID: 10-018-20190509:

For the purpose of plan making an assumption of 15-20% of gross development value (GDV) may be considered a suitable return to developers in order to establish the viability of plan policies. Plan makers may choose to apply alternative figures where there is evidence to support this according to the type, scale and risk profile of planned development. A lower figure may be more appropriate in consideration of delivery of affordable housing in circumstances where this guarantees an end sale at a known value and reduces risk. Alternative figures may also be appropriate for different development types.

3.2.3 Three Dragons' interpretation of this paragraph is that it is not specific about what return is necessarily appropriate for affordable housing, nor does it specifically tie the return to GDV.

3.2.4 A review of the affordable housing contractor return used in viability studies recently examined in other areas shows a variety of approaches. In this regard, inspectors have clearly accepted a range of approaches as suitable, including the 6% of build costs used in this study. 6% of build costs was accepted in the recent East Devon CIL examination. Table 3.1 provides further details.

Table 3.1 Affordable housing return in other locations

Local authority	Type of plan/CIL	Date of inspectors report	Viability practitioner	Affordable housing return	Marketing and sales
Bedford BC	Local Plan	Dec-19	BNP Paribas	6% of value	3% of value plus 0.5% legal fees
			GL Hearn (strategic sites)	6% of value	3% of value
Braintree (N Essex)	Local Plan Pt 1	Dec-20	Hyas	6% of value	2.5% of value
Chelmsford	Local Plan	Feb-20	HDH	6% of value	3.5% of value
Cherwell	Local Plan	Aug-20	Montagu Evans	20% of value	2.50% of value

Local authority	**Type of plan/CIL**	**Date of inspectors report**	**Viability practitioner**	**Affordable housing return**	**Marketing and sales**
Chesterfield	Local Plan	May-20	Bailey Venning Associates	6% of construction costs	3% of value plus £500 per unit.
Craven	Local Plan	Oct-19	Aspinall Verdi	6% of value	3% of value
Harlow	Local Plan	Nov-20	BNP Paribus	6% of value	3.50% of value
Harlow	Local Plan	Nov-20	HDH	6% of value	3.50% of value
Lancaster	Local Plan pt 1	Jun-20	LSH	Same as open market 18% of value	4.00% of value
Mansfield	Local Plan	Apr-20	Keppie Massie	6% of value	2.50% of value
Mid Devon	Local Plan review	Jun-20	DSP	6% of value	3% of value plus £750 legal costs
New Forest DC	Local Plan	Mar-20	Three Dragons	6% of construction cost	3% of value
North York Moors NP	Local Plan	May-20	Aspinall Verdi	6% of value	4.5% of value
Northumberland NP	Local Plan	Jun-20	Aspinal Verdi	6% of value	3% of value
Runnymede	Local Plan	May-20	AGA	6% of construction cost	3% of value
South Kesteven	Local Plan	Jan-20	HDH/Aecom	Same as open market 20% of cost sensitivity tested as 20% of value	3% of value
South Oxfordshire	Local Plan	Nov-20	Aspinal Verdi	6% of value	4.50% of value
Staffordshire Moorlands	Local Plan	Jun-20	WYG & Keppie Massie	Same as open market (15% of value on sites of 5 to 10 units, 20% of value for all others)	3.5% of value
Suffolk Coastal	Local Plan	Sep-20	Aspinal Verdi	6% of value	3.5% of value
Sunderland City	Local Plan	Jan-20	HDH	20% of value	3.5% of value
Thanet	Local Plan	Mar-20	Dixon Searle	6% of value	3-6% of value + £750 legal fees
Tower Hamlets	Local Plan	Sep-19	BNP Paribas	6% of value	3% of value plus 0.5% legal fees
Arun	CIL	Dec-19	HDH	6% of value	3.50% of value
Brighton	CIL	Feb-20	DSP	6% of value	3% of value plus £750/dwg
Canterbury	CIL	Nov-19	Three Dragons	6% of cost	3% of value
East Devon	CIL	Jun-20	Three Dragons	6% of cost	3% of value
Harrogate	CIL	May-20	HDH	6% of value	3.5% of value
Kirklees	CIL	Jan-20	Cushman	6% of value	3.5% of value

Local authority	Type of plan/CIL	Date of inspectors report	Viability practitioner	Affordable housing return	Marketing and sales
Tower Hamlets	CIL	Oct-19	BNP Paribus	6% of value	3% of value plus 0.5% legal fees
Bromley	CIL	Jan-21	DSP	6% of value	3% of value + £750 legal fees

3.3 Sales and marketing costs

3.3.1 In the Inspector's letter the Council is requested to clarify why 3.0% is used rather than 5%, and the application of sales costs to affordable housing and gypsy and traveller sites. The Council is also requested to clarify why 3% has been used in preference to the suggested industry standard of 5%.

3.3.2 Within the viability study 3% of the value is used for the marketing and sales costs for market housing, and 3% of value is also used for sales and marketing costs for the gypsy and traveller plots. These allowances cover marketing, agents and legal costs. Different allowances are used for the affordable housing as these are presold to housing associations, and here £500 per dwelling is used to cover legal costs.

3.3.3 Again, a review of the marketing and sales costs used in viability studies recently examined in other areas shows a variety of approaches, although none suggest that 5% of GDV is the industry standard. The rates used vary between 2.5% and 4.5% of value[4], and a number of studies use 3% plus a small allowance for legal fees. The 3% of value used by Three Dragons includes an allowance for legal costs (0.5% legal fees out of the 3% allowance). The 3% of value marketing and sales costs used by Three Dragons are within the range used in other studies and have been accepted by inspectors as suitable. It is therefore reasonable to apply this rate to the expansion of Cranbrook. Table 3.1 provides further detail on the studies reviewed.

3.4 Gypsy and traveller sites

3.4.1 In the Inspector's letter the Council is requested to clarify the specification and costs applied to the two gypsy and traveller sites, including land costs.

3.4.2 The specification for the gypsy and traveller sites is for 15 landscaped pitches (Treasbeare and Cobdens), with amenity facilities for each of the two locations. Pitch boundaries are fenced and the site perimeters are Devon bank. Vehicular access and utilities are provided.

3.4.3 Within the viability study costs associated with the gypsy and traveller sites include:

- Land
- Share of some site wide costs
- Part of the road network
- Specific costs
- Professional fees

[4] The Thanet viability study text suggests 6% may be used but 3% of value was used in all the residential appraisals and text within the report.

Land

3.4.4 The gypsy and traveller sites have a total of 2.13 ha (PSD 21a Table 3.2). This land has the same £300,000/ha benchmark land value as the other development land used for housing, community facilities, sports, employment and mixed-use development. The total land benchmark cost for this part of the expansion area is therefore £639,000 plus the standard acquisition and SDLT costs.

Site wide costs

3.4.5 The gypsy and traveller provision relies on a share of a set of costs such as surveys, enabling works and site wide abnormals. These can be found in PSD 21B Appendix 8 in the summary and the subsequent pages.

Road network

3.4.6 The Treasbeare gypsy and traveller provision relies on a dedicated length of tertiary road with a length of 102 metres. The estimated costs of providing this road are £220,000, which includes the lighting, surface/foul drainage and utilities costs associated with the road length, as well as contingencies.

Specific costs

3.4.7 The specific construction costs associated with the gypsy and traveller provision are set out in PSD 21B Appendix 8 page 15 and summarised in Table 3.2 below. These costs cover the 15 pitches across the two locations and total £1.47m.

Professional fees

3.4.8 The professional fees associated with the gypsy and traveller provision road and specific costs are estimated to be £118,000.

Summary

3.4.9 The total direct cost allowance for construction of the two sites, the specific road access to Treasbeare site and the professional fees is £1,808,000. This cost, along with the land costs, are already within the wider set of infrastructure costs in the viability testing for the expansion of Cranbrook.

Table 3.2 Gypsy and traveller pitch costs

Item	Cost
Site wide preparation; topsoil strip, sub-soil levelling and the like	£136,320
Allowance for Devon Bank to perimeters of site	£123,000
Extra over for vehicular access gates	£1,500
Allowance for safe access bellmouth in tarmacadam	£17,000
Allowance for 3.5m wide access road and turning circle	£70,950
Turfed Play Areas on imported topsoil	£2,340
Pavement around play area and knee rail; 1000 wide	£5,400
Path Network/Gravel	£33,280
Close Boarded Fencing Between Plots	£19,200
Allowance for Planting	£3,000
Gravel Storage to Perimeters; 2000 wide	£19,680
Seeding Remaining Plot Areas	£49,028
Extra over for parking areas/patios etc	£60,358
Toilet/Amenity Block (Provisional Allowance of 1 Per Site)	£350,000
Bin Stores	£5,000
Mains Water; pits	£38,000
Mains Electricity; pits	£32,500
Subdued Site Lighting Provision	£63,900
Extra over for feeder pillars	£4,000
Services Connection Charges	£22,500
Allowance for septic tanks, manholes and communal connections	£59,700
Main Contractor's Preliminaries @ 10%	£111,666
Main Contractor's Overheads & Profit @ 7.5%	£92,124
Contingencies @ 10%	£132,045
Cost uplift since 2019	£17,713
Total (rounded to £10,000)	£1,470,000

3.5 Consistency with other Three Dragons work

3.5.1 In the Inspector’s letter the Council is requested to review and clarify the consistency with other Three Dragons work undertaken in the locality, with reference to the issues noted in Appendix 1 to Cranbrook LVA LLP response prepared by Sturt & Co. The studies quoted in the Appendix 1 to this response are a mixture of Three Dragons and other viability practitioners’ work and are as follows (including the Cranbrook Plan DPD Updated Viability Report, 2020 for comparison).

Table 3.1 Cranbrook Plan DPD and Other Local Viability studies

Study	Return	Fees	Dwelling build cost	Contingency
Cranbrook Plan DPD Updated Viability Report, 2020, Three Dragons PSD 21A	Market housing 17.5% of GDV Affordable housing 6% of build costs	6.25% of build cost for housing; 12.15% for infrastructure, 7.75% for utilities, 8.25% for site abnormals, 7.5% for plot abnormals. Equivalent to 6.3% professional fees overall. 3% of GDV sales and marketing costs except on affordable housing	Lower quartile BCIS	2% on dwelling build costs, 5% on G&T pitches and CSB plots, 10% on site infrastructure and s106 items (unless all-in s106 costs from DCC). Total £22.3m in WWA cost plan and viability testing.
Teignbridge District Council CIL Viability 2012, PBA and Three Dragons	Market housing - 17% of GDV + 5% internal overhead (20% of GDV overall) Affordable housing 6% of build costs	12% professional fees 3% sales and marketing costs	BCIS mean	Not stated
Mid-Devon District Council CIL and Local Plan Viability, 2014, DSP	Market housing 20% of GDV Affordable housing 6% of GDV	10% professional fees 3% sales and marketing costs plus £750/unit legal fees	BCIS median	3% (for schemes of between 1,500 and 3,000 units)
West Dorset District Council, CIL Viability, 2012, BNP Paribus	Market housing 25% of GDV for larger schemes otherwise 20% Affordable housing 6% of GDV	10% professional fees Unspecified sales and marketing costs	BCIS – quartile not stated	5%
Taunton Deane Borough Council, Site Allocation Viability, 2015, Three Dragons	Market housing 20% of GDV Affordable housing 6% of build costs	12% professional fees 3% sales and marketing costs	BCIS median	Not stated
South Somerset Council CIL Viability, 2013, BNP Paribus	Market housing 20% of GDV Affordable housing 6% of build costs (although questioned by Sturt & Co)	10% professional fees 3% sales and marketing costs plus 0.25%-0.5%/unit legal fees	BCIS – quartile not stated	5%
Source Sturt & Co on behalf of Cranbrook LVA except for Cranbrook Plan DPD				

Return

3.5.2 The PSD 21A rate of return on market housing is different to the local studies identified in the Cranbrook LVA LLP response. These local comparator studies are all prior to 2018 and this is significant as this is when Planning Practice Guidance was revised to provide more clarity about some of the key viability testing assumptions. In particular, the 2018 PPG changes included the statement that 15-20% of GDV may be considered a suitable return to developers for the purpose of plan making. It is on this basis, along with the risk assessment in PSD 21A Table 3.13 that 17.5% developer return for market housing is considered reasonable for the expansion of Cranbrook.

3.5.3 The PSD 21A contractor return on affordable housing (6% on costs) is the same as the two Three Dragons studies identified in the Cranbrook LVA LLP response, but different to two of the other three studies (two use 6% of GDV; and the affordable return for South Somerset is not clear). It seems clear that the approach taken in PSD 21A is consistent with the earlier local Three Dragons work as well as being found sound in EiPs.

Fees

3.5.4 The professional fees in the local comparator studies identified in the Cranbrook LVA LLP response use rates of between 10% to 12% of build cost. These rates are higher than the professional fees used for the expansion of Cranbrook, which are 6.3% of total construction costs.

3.5.5 Over recent years, large scale strategic developments have become increasingly important in achieving delivery of housing and meeting local plan targets. This has led to greater use of cost consultants for studies such as the use of WWA for this work on Cranbrook

3.5.6 To inform the viability testing in PSD 21A, WWA provided Cranbrook expansion cost estimates in 2020 (PSD 21B Appendix 8). This cost plan is specific to Cranbrook and is based upon the masterplan and other documents listed in Section 5 of the WWA report. As part of the cost report, WWA has provided specific estimates of professional fees, split by cost item. WWA's work is based upon measured allowances and benchmarked with other schemes. The use of specific evidence for strategic sites is required by PPG[5] and the viability testing's reliance on this WWA site-specific technical information including professional fees is compliant with this requirement.

3.5.7 The earlier Three Dragons studies identified in the Cranbrook LVA LLP response did not deal with strategic sites in the same level of detail, and did not benefit from specific cost consultants' advice.

Dwelling build costs

3.5.8 The dwelling build costs used in the local comparator studies identified in the Cranbrook LVA LLP response typically use BCIS median or mean. This is different to the build costs used for the viability testing in PSD 21A.

3.5.9 Since the studies identified in the Cranbrook LVA LLP response were undertaken, two pieces of work by BCIS have led to a greater understanding of how build costs vary by scale of development:

- The Federation of Small Businesses commissioned BCIS in 2015 to undertake an analysis of dwelling build costs[6]. This showed that that the higher costs are focused on the single dwelling developments and that costs fall away as the number of dwellings increases. This analysis showed that developments of six or more houses are less than the mean.
- Three Dragons commissioned BCIS in 2018 to undertake an analysis of build costs by scale. This clearly showed that build costs fall as the size of schemes increases, and that the costs for larger developments (101 dwellings+) are approximately lower quartile.

3.5.10 In addition, a number of site-specific viability assessments reviewed on a confidential basis by Three Dragons as part of other work in different locations in England use BCIS lower quartile build costs, especially for larger scale developments. These specific assessments and the BCIS analyses provide useful context for the dwelling build cost estimates for the expansion of

[5] Paragraph: 005 Reference ID: 10-005-20180724
[6] BCIS, 2015, Housing development: the economics of small sites – the effect of project size on the cost of housing construction. See Table 2 on page 12

Cranbrook. One relevant example that is now available as part of an ICO request relates to the development of 2,000 dwellings on the western side of Taunton. Here, the applicants' own assessment on behalf of housebuilders Taylor Wimpey, MacTaggart & Mickel, Bovis and Summerfield is based upon lower quartile BCIS[7].

3.5.11 To inform the viability testing in PSD 21A, WWA provided Cranbrook expansion cost estimates in 2020 (PSD21B Appendix 8). This cost plan is specific to Cranbrook and is based upon the masterplan and other documents listed in Section 5 of the WWA report. As part of the cost report, WWA has provided specific estimates of dwelling build costs, which are BCIS lower quartile and specified in page 12 of their report as well as Appendix 1 of their report. WWA's work is based upon measured allowances and benchmarked with other schemes. The use of specific evidence for strategic sites is required by PPG[8] and the viability testing's reliance on this site-specific technical information including build costs is compliant with this requirement.

3.5.12 WWA has recently confirmed that BCIS lower quartile costs remain suitable for the expansion of Cranbrook (see Appendix 2).

3.5.13 These BCIS analyses and costs consultants' advice were not available to the earlier Three Dragons viability assessments identified in the Cranbrook LVA LLP response.

Contingency

3.5.14 The contingency allowances used in the local comparator studies identified in the Cranbrook LVA LLP response vary from 5% to none. The viability testing in PSD 21A uses between 2% and 10% of costs depending on the cost item.

3.5.15 There was limited guidance about contingency at the time the earlier studies were undertaken[9], while the current PPG only requires contingency allowances for site specific assessment[10]. This provides some insight into the different approaches used within the group of earlier studies as well as between the earlier studies and the work undertaken in PSD 21A.

3.5.16 To inform the viability testing in PSD 21A, WWA[11] provided Cranbrook expansion cost estimates in 2020 (PSD21B Appendix 8). This cost plan is specific to Cranbrook and is based upon the masterplan and other documents listed in Section 5 of the WWA report. As part of the cost report, WWA has included contingency at 2% of dwelling build costs, 5% of Gypsy and Traveller pitch costs and custom and self-build plot costs, and 10% of site infrastructure and s106 costs (except for all-in s106 costs provided by Devon County Council). Within the WWA cost plan, the total allowance for contingency is £22.3m. WWA's work is based upon measured allowances and benchmarked with other schemes. The use of specific evidence for strategic sites is required by PPG[12] and the viability testing's reliance on this site-specific technical information including contingency costs is compliant with this requirement.

3.5.17 The earlier studies identified in the Cranbrook LVA LLP response were in the context of less guidance and were area wide rather than site specific.

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[7] Application 42/14/0069 supporting documents Financial Appraisal/Supporting Statement RELEASED FOLLOWING ICO DECISION pages 50, 55, 60 65 7th March 2017.
[8] Paragraph: 005 Reference ID: 10-005-20180724
[9] E.g. the Local Housing Delivery Group (Harman) 2012 Viability Testing Local Plans is silent about contingency
[10] Paragraph: 012 Reference ID: 10-012-20180724
[11] WWA is a firm of specialist quantity surveyors https://wwa.uk.com/. The cost advice for the expansion of Cranbrook was provided by staff based in Devon.
[12] Paragraph: 005 Reference ID: 10-005-20180724

Appendix 1 Testing Notes

1. The sensitivity changes to the market housing developer return from the base case of 17.5% to 18.75% and 20% are applied to the general open market housing only and are not applied to the custom and self-build housing or the commercial elements. This change is made in the standard HCA DAT input for open market housing return.
2. The change to the affordable housing contractor return is undertaken by calculating the value of the sensitivity 6% on value (£5.6m compared to the base £3.5m) and amending the Affordable housing return in the HCA DAT to 9.69% of cost in order generate the figure in the output.
3. The sensitivity changes to the dwelling build costs are applied to the general open market housing and the affordable housing. The custom and self-build dwelling build costs remain unchanged at 5% over median. The BCIS figures in the Appendix 1 of the WWA report in PSD 21B are used as the source for the building costs sensitivity changes. These are applied within the HCA DAT along with the 8% plot costs. The increase in build costs will increase the professional fees and will also increase the affordable housing contractor return where that is based on build costs.
4. The finance cost sensitivity is undertaken by splitting the site benchmark value plus acquisition fees/SDLT 75:25 and applying these figures in the same way as the base 50:50 split. 75% is incurred at the outset and the 25% balance is applied a year before the second 50% of the housing delivery.
5. The affordable housing sensitivity tests adjust the proportion of affordable dwellings to 12.5% and 10% respectively. These maintain the same dwelling mixes between the different tenures and the proportions are of the total 4,170 dwellings (as per the base case).
6. The infrastructure funding sensitivity test introduces £30m into the model (included as a negative figure in ‘Other acquisition costs’) at the same time as the first land costs and then phases the repayment of the loan along with 2.25% interest on a per dwelling basis. The repayments (capital plus interest payments) appear under the ‘External works and infrastructure costs’ summary in the HCA DAT output. The interest payments are calculated on the declining balance and total £4.7m, and reflecting the lack of detail about these arrangements this is rounded up to £5m for the purposes of the sensitivity test.

Appendix 2 WWA Costs Confirmation

Ref: AG/EM/18-4897QS

17th May 2021

Dominic Houston

Three Dragons Ltd

123 Marsh Lane,

Yeovil

Somerset

BA21

Dear Dominic,

RE: RE: WWA FEASIBILITY ESTIMATE IN SUPPORT OF THE CRANBROOK EXPANSION PLAN, JULY 2020

Thank you for your recent query regarding estimated build costs contained in the above.

We can confirm that WWA remains satisfied that the information set out therein is a reasoned assessment of potential costs as at Q1 2020 based on the information set out in section 5 of the report. This includes the use of the BCIS lower quartile data for the estimates of dwelling build costs. As noted in the report, cost estimates may change as further detail becomes available.

We trust his clarifies our input last year, however, should you have any further queries then please do not hesitate to contact us.

Yours sincerely,

A. G. Elbes

Andrew Gilbert BSc (Hons) MRICS
Partner
Ward Williams Associates

Enc
cc File

Appendix 3 Testing Results

Cranbrook individual sensitivity tests

Figures summarise HCA DAT outputs

indicates base change from July 2020 testing - reduction in £12.94m across infrastructure, abnormals and s106

indicates variation from June 2021 Base

Test	Mkt dwgs	Aff dwgs	Market Return	Affordable return	Build cost BCIS	Land payment phasing	Funding	AH provision	Market GDV	Affordable GDV	Other revenue	Total GDV	Market build	Affordable build	Total build
July 2020 Base	**3,374.00**	**626.00**	**17.50%**	**6% build cost**	**LQ**	**50% upfront, 50% at 50% dev**	0	**15.0%**	1,047,154,581	92,947,135	14,483,467	1,154,585,183	439,576,581	58,682,267	498,258,848
June 2021 Base	**3,374.00**	**626.00**	**17.50%**	**6% build cost**	**LQ**	**50% upfront, 50% at 50% dev**	**0**	**15.0%**	**1,047,154,581**	**92,947,135**	**14,483,467**	**1,154,585,183**	**439,576,581**	**58,682,267**	**498,258,848**
A - Return Sensitivity 1	3,374.00	626.00	18.75%	6% build cost	LQ	50% upfront, 50% at 50% dev	0	15.0%	1,047,154,581	92,947,135	14,483,467	1,154,585,183	439,576,581	58,682,267	498,258,848
B - Return Sensitivity 2	3,374.00	626.00	20.00%	6% build cost	LQ	50% upfront, 50% at 50% dev	0	15.0%	1,047,154,581	92,947,135	14,483,467	1,154,585,183	439,576,581	58,682,267	498,258,848
C - Affordable Return Sensitivity 1	3,374.00	626.00	17.50%	6% GDV	LQ	50% upfront, 50% at 50% dev	0	15.0%	1,047,154,581	92,947,135	14,483,467	1,154,585,183	439,576,581	58,682,267	498,258,848
D - Build Cost Sensitivity 1	3,374.00	626.00	17.50%	6% build cost	Average LQ & Median	50% upfront, 50% at 50% dev	0	15.0%	1,047,154,581	92,947,135	14,483,467	1,154,585,183	465,416,801	62,913,349	528,330,150
E - Build Cost Sensitivity 2	3,374.00	626.00	17.50%	6% build cost	Median	50% upfront, 50% at 50% dev	0	15.0%	1,047,154,581	92,947,135	14,483,467	1,154,585,183	491,257,020	67,144,431	558,401,451
F - Build Cost Sensitivity 3	3,374.00	626.00	17.50%	6% build cost	Av Median & Upper Quartile	50% upfront, 50% at 50% dev	0	15.0%	1,047,154,581	92,947,135	14,483,467	1,154,585,183	525,893,095	72,003,110	597,896,205
G - Build Cost Sensitivity 4	3,374.00	626.00	17.50%	6% build cost	Upper Quartile	50% upfront, 50% at 50% dev	0	15.0%	1,047,154,581	92,947,135	14,483,467	1,154,585,183	560,532,655	76,861,788	637,394,443
H - Finance Sensitivity 1 (75% land upfront and 25% at 50% dev)	3,374.00	626.00	17.50%	6% build cost	LQ	75% upfront, 25% at 50% dev	0	15.0%	1,047,154,581	92,947,135	14,483,467	1,154,585,183	439,576,581	58,682,267	498,258,848
I - Affordable Housing Sensitivity 1A	3,478.75	521.25	17.50%	6% build cost	LQ	50% upfront, 50% at 50% dev	0	12.5%	1,079,665,020	77,393,806	14,483,467	1,171,542,293	453,223,867	48,862,621	502,086,488
J - Affordable Housing Sensitivity 2	3,583.00	417.00	17.50%	6% build cost	LQ	50% upfront, 50% at 50% dev	0	10.0%	1,112,020,035	61,915,010	14,483,467	1,188,418,512	466,805,924	39,090,082	505,896,006
K - £30m infrastructure loan funding, start repayment 01/06/22	3,374.00	626.00	17.50%	6% build cost	LQ	50% upfront, 50% at 50% dev	30,000,000	15.0%	1,047,154,581	92,947,135	14,483,467	1,154,585,183	439,576,581	58,682,267	498,258,848

Test	External works & infrastructure	Housing professional fees	Land	Abnormals	S106 costs	Total sales and marketing costs	Finance cost	Market housing developer return	Affordable housing contractor return	Operating profit (market, affordable & commercial returns)	Surplus/ deficit	Surplus/ deficit change from 2021 base	Surplus/ deficit as % of total value	Operating profit plus surplus/ deficit as a % of GDV
July 2020 Base	223,778,003	30,530,567	65,945,788	9,893,000	54,138,000	31,727,637	25,929,350	183,252,052	3,451,898	187,594,017	26,789,973		2.3%	18.6%
June 2021 Base	**221,954,003**	**30,530,567**	**65,945,788**	**6,431,000**	**46,486,999**	**31,727,637**	**25,394,886**	**183,252,052**	**3,451,898**	**187,594,017**	**40,261,438**		3.5%	19.7%
A - Return Sensitivity 1	221,954,003	30,530,567	65,945,788	6,431,000	46,486,999	31,727,637	25,394,886	196,341,484	3,451,898	200,683,449	27,172,006	-13,089,432	2.4%	19.7%
B - Return Sensitivity 2	221,954,003	30,530,567	65,945,788	6,431,000	46,486,999	31,727,637	25,394,886	209,430,916	3,451,898	213,772,881	14,082,573	-26,178,865	1.2%	19.7%
C - Affordable Return Sensitivity 1	221,954,003	30,530,567	65,945,788	6,431,000	46,486,999	31,727,637	25,394,886	183,252,052	5,576,541	189,718,660	38,136,795	-2,124,643	3.3%	19.7%
D - Build Cost Sensitivity 1	221,954,003	32,373,171	65,945,788	6,431,000	46,486,999	31,727,637	28,536,461	183,252,052	3,700,785	187,842,904	4,957,070	-35,304,368	0.4%	16.7%
E - Build Cost Sensitivity 2	221,954,003	34,215,775	65,945,788	6,431,000	46,486,999	31,727,637	32,355,004	183,252,052	3,949,672	188,091,791	-31,024,266	-71,285,704	-2.7%	13.6%
F - Build Cost Sensitivity 3	221,954,003	36,635,797	65,945,788	6,431,000	46,486,999	31,727,637	38,497,346	183,252,052	4,235,477	188,377,596	-79,367,187	-119,628,625	-6.9%	9.4%
G - Build Cost Sensitivity 4	221,954,003	39,056,032	65,945,788	6,431,000	46,486,999	31,727,637	46,814,374	183,252,052	4,521,282	188,663,400	-129,888,495	-170,149,933	-11.2%	5.1%
H - Finance Sensitivity 1 (75% land upfront and 25% at 50% dev)	221,954,003	30,530,567	65,945,788	6,431,000	46,486,999	31,727,637	32,956,741	183,252,052	3,451,898	187,594,017	32,699,583	-7,561,855	2.8%	19.1%
I - Affordable Housing Sensitivity 1A	221,954,003	30,765,103	65,945,788	6,431,000	46,486,999	32,702,951	24,776,763	188,941,379	2,874,272	192,705,717	47,687,481	7,426,043	4.1%	20.5%
J - Affordable Housing Sensitivity 2	221,954,003	30,998,530	65,945,788	6,431,000	46,486,999	33,673,601	24,195,943	194,603,506	2,299,417	197,792,990	55,043,652	14,782,214	4.6%	21.3%
K - £30m infrastructure loan funding, start repayment 01/06/22	256,954,003	30,530,567	65,945,788	6,431,000	46,486,999	31,727,637	11,489,410	183,252,052	3,451,898	187,594,017	49,166,914	8,905,476	4.3%	20.5%

Cranbrook in combination sensitivity testing

Figures summarise HCA DAT outputs

indicates base change from July 2020 testing - reduction in £12.94m across infrastructure, abnormals and s106

indicates variation from June 2021 Base

Test	Mkt dwgs	Aff dwgs	Market Return	Affordable return	Build cost BCIS	Land phasing	AH provision	Market GDV	Affordable GDV	Other revenue	Total GDV
July 2020 Base	**3,374.00**	**626.00**	**17.50%**	**6% build cost**	**LQ**	**50% upfront, 50% at 50% dev**	**15.0%**	1,047,154,581	92,947,135	14,483,467	1,154,585,183
June 2021 Base	**3,374.00**	**626.00**	**17.50%**	**6% build cost**	**LQ**	**50% upfront, 50% at 50% dev**	**15.0%**	**1,047,154,581**	**92,947,135**	**14,483,467**	**1,154,585,183**
1 - Higher build, returns and finance costs	3,374.00	626.00	20.00%	6% GDV	Upper Quartile	75% upfront, 25% at 50% dev	15.0%	1,047,154,581	92,947,135	14,483,467	1,154,585,183
2 - Higher build, returns and finance costs - no affordable housing	4,000.00	-	20.00%	6% GDV	Upper Quartile	75% upfront, 25% at 50% dev	0.0%	1,241,440,044	-	14,483,467	1,255,923,511
3 - Higher returns	3,374.00	626.00	18.75%	6% GDV	LQ	50% upfront, 50% at 50% dev	15.0%	1,047,154,581	92,947,135	14,483,467	1,154,585,183
4 - Higher returns & higher finance	3,374.00	626.00	18.75%	6% GDV	LQ	75% upfront, 25% at 50% dev	15.0%	1,047,154,581	92,947,135	14,483,467	1,154,585,183
5 - Higher returns & higher build cost	3,374.00	626.00	18.75%	6% GDV	Average LQ & Median	50% upfront, 50% at 50% dev	15.0%	1,047,154,581	92,947,135	14,483,467	1,154,585,183
6 - Higher returns, higher build cost,12.5%AH	3,478.75	521.25	18.75%	6% GDV	Average LQ & Median	50% upfront, 50% at 50% dev	12.5%	1,079,665,020	77,393,806	14,483,467	1,171,542,293
7 - Higher build, returns and finance costs - 15%AH	3,374.00	626.00	20.00%	6% GDV	Average LQ & Median	75% upfront, 25% at 50% dev	15.0%	1,047,154,581	92,947,135	14,483,467	1,154,585,183

Test	Market build	Affordable build	Total build	External works & infrastructure	Housing professional fees	Land	Abnormals	S106 costs	Total sales and marketing costs	Finance cost	Market housing developer return	Affordable housing contractor return	Operating profit (market, affordable & commercial returns)	Surplus/ deficit	Surplus/ deficit change from 2021 base	Surplus/ deficit as % of total value	Operating profit plus surplus/ deficit as a % of GDV
July 2020 Base	439,576,581	58,682,267	498,258,848	223,778,003	30,530,567	65,945,788	9,893,000	54,138,000	31,727,637	25,929,350	183,252,052	3,451,898	187,594,017	26,789,973		2.3%	18.6%
June 2021 Base	**439,576,581**	**58,682,267**	**498,258,848**	**221,954,003**	**30,530,567**	**65,945,788**	**6,431,000**	**46,486,999**	**31,727,637**	**25,394,886**	**183,252,052**	**3,451,898**	**187,594,017**	**40,261,438**		3.5%	19.7%
1 - Higher build, returns and finance costs	560,532,655	76,861,788	637,394,443	221,954,003	39,056,032	65,945,788	6,311,000	46,486,999	31,727,637	55,867,713	209,430,916	5,576,850	215,897,833	-166,176,267	-206,437,705	-14.4%	4.3%
2 - Higher build, returns and finance costs - no affordable housing	664,531,964	-	664,531,964	221,954,003	40,718,870	65,945,788	6,311,000	46,486,999	37,243,201	46,372,134	248,288,009	-	249,178,076	-123,251,525	-163,512,963	-9.8%	10.0%
3 - Higher returns	439,576,581	58,682,267	498,258,848	221,954,003	30,530,567	65,945,788	6,311,000	46,486,999	31,727,637	25,394,886	196,341,484	5,576,829	202,808,380	25,047,075	-15,214,363	2.2%	19.7%
4 - Higher returns & higher finance	439,576,581	58,682,267	498,258,848	221,954,003	30,530,567	65,945,788	6,311,000	46,486,999	31,727,637	32,956,741	196,341,484	5,576,829	202,808,380	17,485,220	-22,776,218	1.5%	19.1%
5 - Higher returns & higher build cost	465,416,801	62,913,349	528,330,150	221,954,003	32,373,171	65,945,788	6,311,000	46,486,999	31,727,637	28,585,177	196,341,484	5,576,837	202,808,387	-10,057,130	-50,318,568	-0.9%	16.7%
6 - Higher returns, higher build cost,12.5%AH	479,866,333	52,385,691	532,252,024	221,954,003	32,613,482	65,945,788	6,311,000	46,486,999	32,702,951	27,801,547	202,437,191	4,643,632	207,970,890	-2,616,391	-42,877,829	-0.2%	17.5%
7 - Higher build, returns and finance costs - 15%AH	465,416,801	62,913,349	528,330,150	221,954,003	32,373,171	65,945,788	6,431,000	46,486,999	31,727,637	36,408,259	209,430,916	5,576,830	215,897,814	-30,969,637	-71,231,075	-2.7%	16.0%