



GREATER NORWICH LOCAL PLAN  
Interim Viability Study

20 November 2019

**Details regarding the author and accountabilities.**

This Interim Viability Study has been prepared by NPS Property Consultants Ltd., Nautilus House, Thorpe St Andrew Business Park, Thorpe St Andrew, Norwich, Norfolk on behalf of the Greater Norwich Development Partnership to aid the preparation of the Local Plan under Regulation 18 of the Town and Country Planning (Local Planning) (England) Regulations 2012 (as amended).

NPS Property Consultants Ltd is the parent company for the NPS Group. The consultancy is responsible for delivering consultancy services to the sole shareholder Norfolk County Council, as well as other public and private sector customers in the East of England. Norse Group Ltd is the holding company of NPS and sister companies Norse Commercial Services and NorseCare.

This study progresses the outcome of a previous GNLP Viability Appraisal carried out by Hamson Barron Smith part of the Norse Group in August 2017.

The parameters and terms of engagement of the initial GNLP Appraisal and this subsequent study were initially agreed with Hamson Barron Smith in 2015. The core commission has essentially remained the same although over time but consultation and further discussion with the client and their advisors, has resulted in the preparation of this piece of work in the format presented.

The practitioner can confirm on behalf of NPS Property Consultants Ltd that she has complied with the RICS professional standards and guidance, England – Financial viability in planning: conduct and reporting 1<sup>st</sup> edition, May 2019 as far as she was able to, and where any deviance may have occurred this is referred to within the body of the study.

The practitioner can confirm that:

- She has remained objective, impartial and reasonable,
- There are no known conflicts of interest,
- Confirmation of instructions have evolved over time due to nature of this commission, it has been a commission of collaboration with other property advisors employed by the client,
- There is no performance related or contingent fee relating to this commission,
- With the exception of confidential material used to assess viability inputs the material used is available,
- This is an area wide viability assessment and not site specific,
- Where possible the practitioner has sought to justify and evidence the viability appraisal inputs but where a high degree of practitioner judgement has been made, this has been stated,
- The 'Benchmark Land Value' – see Part 2 for approach and commentary,
- With regard to Sensitivity Analysis – see Part 3 and the comments made.

The client has also commissioned a consultant to act impartially and as a critical friend in this process. He has worked closely with both the client and the practitioner and this report is the culmination of that collaboration.

Prepared by: Tracey Burton MRICS  
Date:

Peer Review: Gill Knox MRICS  
Date:

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# Executive Summary

## Executive Summary

This Viability Study has been undertaken in line with the Harman Guidance<sup>1</sup> and Planning Policy Guidance<sup>2</sup> taking into account the proposed new policies associated with the emerging Local Plan (Regulation 18)<sup>3</sup> to be consulted on in early 2020.

This Study takes forward the outcome of the previous Viability Appraisal undertaken by Hamson Baron Smith in 2017<sup>4</sup> following stakeholder consultation.

Key Policies proposed by the emerging Local Plan<sup>5</sup> are shown in the Table provided below. The policy detail is the culmination of further discussion between planning practitioners and industry professionals and are considered to represent a fair and reasonable expectation of developers and landowners contributions towards future development.

<b>Table 1: Proposed Local Plan Policy Requirements</b>		
1.	Nationally Described Space Standard (NDSS) <sup>6</sup>	All housing to be compliant
2.	Affordable Housing	33% with 75:25 Affordable Rented Tenure: Affordable Home Ownership split <sup>7</sup>
3.	Water	£9.00 per dwelling
4.	Energy	£5,000 per dwelling
5.	Access	£940 on 20% of homes
6.	Visitor Pressure Tariff – RAMS	£200 per dwelling
7.	General Open Space	Calculated in accordance with Typology criteria as @ June 2019 <sup>8</sup>
8.	Open Space – SANGS	Calculated in accordance with Typology criteria as @ June 2019 <sup>8</sup>
9.	CIL	£106.47/m <sup>2</sup> for market dwellings only

<sup>1</sup> Viability Testing Local Plans: Advice for planning practitioners June 2012.

<sup>2</sup> In particular Viability – GOV.UK 6 March 2014 updated 1 September 2019 and, Plan-making GOV.UK 13 September 2018 updated 23 July 2019.

<sup>3</sup> There is considerable flexibility open to local planning authorities in how they carry out the initial stages of local plan production, provided they comply with the specific requirements in Regulation 18 of the town and Country Planning (Local Plan)(England) Regulations 2012.

<sup>4</sup> [https://gnlp.jdi-consult.net/documents/pdfs\\_14/20170829\\_gndp\\_viability\\_appraisal\\_report\\_v7.0](https://gnlp.jdi-consult.net/documents/pdfs_14/20170829_gndp_viability_appraisal_report_v7.0)

<sup>5</sup> Draft Greater Norwich Local Plan (GNLP) Strategy for the period 2018 to 2038.

<sup>6</sup> Technical housing standards – nationally described space standard March 2015.

<sup>7</sup> Exact affordable tenure splits will vary according to up to date evidence as provided by the LPA at the planning application stage. 75:25 affordable housing tenure split based on current common practice.

<sup>8</sup> See Appendix C for Base Tables provided by Broadland Council in accordance with Policies RL1 and EN3.

In addition to the emerging policies, Local Authorities<sup>9</sup> in their preparation of the Local Plan are required to consider Benchmark Land Values.

The rates per Hectare shown against each Typology in the Table below, are the figures used within the appraisals and are considered to reflect what the market might reasonably pay for un-serviced land derived from an existing use value. A number of hypothetical Typologies are increased to reflect their more urban location, these are sometimes referred to as 'existing use value plus' (EUV+).

<b>Table 2: Proposed Benchmark Land Values</b>			
<b>Typologies:</b>	<b>No. Dw:</b>	<b>Site Area in Ha:</b>	<b>Rate per Site Area in Ha £:</b>
1. Service Village	20	0.71	494,210
2. Urban	20	0.27	2.397m
3. Service Village	50	2.02	433,168
4. Main Town	75	3.04	432,434
5. Urban Centre (higher density)	100	0.50	1.036m
6. Urban Centre (lower density)	100	2.02	642,473
7. Urban Edge	100	4.05	432,099
8. Urban Edge	250	10.12	370,658
9. Urban Edge	600	24.28	247,105

It is concluded that the appraisals for each of the 9 hypothetical Typologies based on the inputs<sup>10</sup> to arrive at both the Gross Development Value (GDV) and the Gross Development Costs (GDC), the proposed Benchmark Land Value per Typology and the emerging Local Plan policies costs, represent viable hypothetical schemes.

In accordance with plan making guidance, this study forms part of the plan making process and has been prepared for consultation with stakeholders wherever they may sit within the delivery development structure. Accordingly, a further workshop is proposed on 14<sup>th</sup> February<sup>11</sup> where developers, landowners and other stakeholders are encouraged to share their views.

Should stakeholders wish to comment independently of the proposed workshop, please write or contact the team at [GNLP@norfolk.gov.uk](mailto:GNLP@norfolk.gov.uk)

<sup>9</sup> Viability – GOV.UK 6 March 2014 updated 1 September 2019.

<sup>10</sup> The viability appraisal 'inputs' are explained in greater detail in Part 1 and Part 2 of this report.

<sup>11</sup> Further details will be provided before the event.



# Part One

## Context

## PART 1 - CONTEXT

### 1.1 Purpose

This Interim Viability Study has been prepared to support the Draft Greater Norwich Local Plan (GNLP) Strategy document which is the first part of the consultation of the Greater Norwich Local Plan<sup>1</sup>.

The key objective of this report is to identify and demonstrate that the existing and proposed policies relating to housing of the emerging Greater Norwich Local Plan have been robustly 'tested' as recommended by published guidance<sup>2</sup>.

The purpose of this 'testing' is to inform those preparing the Plan that the policies proposed are achievable while ensuring that landowners and developers achieve a satisfactory return on their investment.

Where positive findings are identified and demonstrated it should generate a degree of confidence in those relevant policies enabling landowners and developers to bring land forward for development with a greater degree of certainty regarding costs; and enable Planning Authorities to identify sites which can be developed in the plan period and meet nationally set housing delivery targets.

This 'testing' has been undertaken by reference to the NPPF viability guidance September 2019, Viability Testing Local Plans: Advice for planning practitioners June 2012 the 'Harman Guidance', the RICS Financial viability in planning guidance, the outcome of stakeholder consultation and continuing client consultation and takes forward the recommendations of the Hamson Baron Smith GNLP Viability Appraisal August 2017 (the HBS Report) which was the report prepared following the first phase of this viability testing.

### 1.2 Context

The Greater Norwich Development Partnership has been established to coordinate the production of the Greater Norwich Local Plan. GNLP consists of Norwich, Broadland and South Norfolk Councils supported by Norfolk County Council and the Broads Authority.

The GNLP covers the period from 2018 to 2038.

The key to success of the GNLP will ensure that the delivery of jobs, infrastructure and housing takes place. Some inroad has been made to improve infrastructure and job growth is reasonably strong. Delivery of housing numbers however remains a challenge nationally.

The Draft Greater Norwich Local Plan (GNLP) Strategy document has been prepared under Regulation 18 of the Town and Country (Local Planning) Regulations 2012 (as amended). There are key requirements in the preparation of the Local Plan regarding content, consultation, timescales etc. This Interim Viability Study supports the draft document where it relates to housing delivery.

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<sup>1</sup> There is considerable flexibility open to local planning authorities in how they carry out the initial stages of local plan production, provided they comply with the specific requirements in Regulation 18 of the town and Country Planning (Local Plan)(England) Regulations 2012.

<sup>2</sup> In particular Viability Testing Local Plans: Advice for planning practitioners June 2012 'the Harman Guidance', RICS Professional Guidance, England 1<sup>st</sup> Edition: Financial viability in planning (GN 94/2012).

### 1.3 Viability Assessment Framework

In order to undertake a viability assessment of the proposed Local Plan policies in relation to housing delivery, a number of key publications and guidance were considered. These are as identified below.

#### 1.3.1 National Planning Policy Framework 2019 (NPPF) (previously 2012)

The NPPF calls for balance between sustainable development which benefits the local community and realistic returns for landowners and developers such that the development is commercially viable.

#### 1.3.2 Planning Policy Guidance 2019<sup>3</sup>

This Guidance is key to why viability appraisals are used at the early formation of emerging Local Plans and then goes onto to say how to approach those viability assessments.

*'Plans should set out the contributions expected from development. This should include setting out the levels and types of affordable housing provision required, along with other infrastructure.*

*These policy requirements should be informed by evidence of infrastructure and affordable housing need, and a proportionate assessment of viability that takes into account all relevant policies, and local and national standards, including the cost implications of Community Infrastructure Levy (CIL) and Planning Obligations (section 106). Policy requirements should be clear so that they can be accurately accounted for in the price paid for land. To provide this certainty, affordable housing should be expressed as a single figure rather than a range. Different requirements may be set for different types or location of site or types of development.*

*Viability assessment should not compromise sustainable development but should be used to ensure that policies are realistic, and that total cumulative cost of all relevant policies will not undermine deliverability of the plan.*

*Assessing the viability of plans does not require individual testing of every site or assurance that individual sites are viable. Plan makers can use site typologies to determine viability at the plan making stage. Assessment of samples of sites may be helpful to support evidence. In some circumstances more detailed assessment may be necessary for particular areas or key sites on which the delivery of the plan relies.'*

This Interim Viability Study has assessed 9 Typologies which look to reflect a variety of locations in the Greater Norwich area taking into account:

- all relevant planning policies whether existing or emerging,
- sustainable levels of affordable housing, and
- the application of national standards as appropriate.

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<sup>3</sup> In particular Viability – GOV.UK 6 March 2014 updated 1 September 2019 and, Plan-making GOV.UK 13 September 2018 updated 23 July 2019.

1.3.3 Viability Testing Local Plans: Advice for planning practitioners. Local Housing Delivery Group chaired by Sir John Harman June 2012 (the Harman Report).

This report provides advice to support the 2012 National Planning Policy Framework by outlining the importance of viability and deliverability as part of the balance in developing Local Plans. The guidance provided is a collective view of a variety of stakeholders such as the Homebuilders Federation, the Local Government Association and house builders and while those views may differ, common ground was sought, particularly given the current resource constrained economy, for pragmatic, balanced planning policies and simplified development standards.

The report deliberately focused on assessing the whole plan and the policies that are being developed as part of the plan making and is aimed at those responsible for plan making as well as those with whom planners will work and engage with to produce deliverable and sustainable plans.

1.3.4 RICS Professional Guidance, England 1<sup>st</sup> Edition: Financial viability in planning (GN 94/2012) [See note below]

RICS Guidance notes are documents which provide users with recommendations for accepted good practice.

The purpose of this guidance note is to *'provide all those involved in financial viability in planning and related matters with a definitive and objective methodology framework and set of principles primarily for application to development management'*.

The guidance note further explains that *'the note is grounded in the statutory and regulatory planning regime that currently operates in England. It is consistent with the Localism Act 2011, National Planning Policy Framework of 2012 and Community Infrastructure Levy (CIL) Regulations 2010.'*

The guidance note explains that *'the most common uses for financial viability assessments are for development management and plan making (policy and CIL viability testing). The guidance note has a particular focus on development management (scheme specific assessments) although the principles set out are equally applicable to plan making and CIL (area wide) viability testing.'*

Viability assessments are important in planning and proper understanding of financial viability and essential in ensuring that:

- Land is willingly released for development by landowners,
- Developers are capable of obtaining an appropriate market risk adjusted return for delivering the proposed development,
- The proposed development is capable of securing funds,
- Assumptions about quantum of development that can be viably delivered over the course of the plan period are robust, and
- CIL charging schedules are set at an appropriate level.

Financial viability is defined as *'an objective financial viability test of the ability of a development project to meet its costs including the cost of planning obligations, while ensuring an appropriate Site Value for the landowner and a market risk adjusted return to the developer in delivering that project.'*

It is important to note that at the time of compiling this study, the RICS is producing a second edition of this Guidance Note to reflect the changes in the NPPF 2018, as updated in February 2019 and PPG 2018, as updated in May 2019. The outcome of this revision may affect the approach to viability assessments or 'viability testing'.<sup>4</sup>

### 1.3.5 RICS Financial viability in planning: conduct and reporting. 1<sup>st</sup> Edition, May 2019

This document is a RICS professional statement [PS]; this means that it is a mandatory requirement of RICS members and RICS-regulated firms.

In addition to recognising the importance of impartiality, objectivity and transparency when reporting on viability appraisals, the practice statement also aims to support and complement the government's reforms to the planning process announced in July 2018.

This new policy and practice advice prioritises the assessment of viability at the plan making stage and identifies Existing Use Value as the starting point for assessing the uplift in value required to incentivise the release of land.

## 1.4 Greater Norwich Development Partnership Approach to viability

### 1.4.1 General Approach

'Vision and Objectives for Greater Norwich to 2038' with regard to Homes:

*'To enable delivery of high quality homes of the right density, size, mix and tenure to meet people's needs throughout their lives and to make efficient use of that land'.*

The above statement was considered when formulating how the viability appraisals would be scoped. The approach adopted was to create a number of hypothetical residential development scenarios identified as Typologies which although hypothetical would fall broadly in line with GNDP's proposals on:

- Vision for Greater Norwich,
- Settlement Hierarchy,
- Energy, Water Efficiency and Lifelong Access,
- Housing densities and mix of dwelling types,
- Green Infrastructure and Open Space,
- Visitor Pressure Tariff Policy, and
- Appropriate levels of Affordable Housing.

When considering the number of Typologies to be assessed, reference was made to the previous HBS Report where 7 Typologies were appraised; this has been expanded to 9 Typologies as it was considered that a development of 50 units would be a typical scale of development and that Norwich Urban area required an additional assessment.

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<sup>4</sup> Source: Financial viability in planning: conduct and reporting. 1<sup>st</sup> Edition, May 2019

These 9 Typologies broadly follow the Settlement Hierarchy identified in the Draft GNLP document.

The Settlement Hierarchy is identified as:

- I. The Norwich urban area which consists of Norwich and the built up parts of the fringe Parishes of Colney, Costessey, Cringleford, Drayton, Easton, Hellesdon, Old Catton, Sprowston, Taverham, Thorpe St Andrew, Trowse and the remainder of the Growth Triangle.
- II. The main towns which are Aylsham, Diss (including Roydon), Long Stratton, Harleston and Wymondham.
- III. The key service centres which are Acle, Blofield, Brundall, Hethersett, Hingham, Loddon/Chedgrave, Poringland/Framingham Earl, Reepham and Wroxham.
- IV. Village clusters which cover the remainder of the Greater Norwich Local Plan area.

Table 3 identifies the 9 Typologies core criteria i.e. the number of dwellings, likely gross site areas and typical locations where the hypothetical Typology might be located. Windfall sites are not assessed.

**Table 3: Typology Criteria**

Typology:	No. Dw:	Area Ha:	Area Acres:	Typical Notional Locations:
1 Service Village	20	0.71	1.75	Brundall, Blofield, Horsford, St Faiths Mulbarton, Bawburgh
2 Urban	20	0.27	0.67	Norwich City – between outer and inner ring road
3 Service Village	50	2.02	5.00	Coltishall, Buxton, Foulsham, Reepham, Loddon, Long Stratton, Poringland, Ellingham, Redenhall, Deopham
4 Main Town	75	3.04	7.50	Wymondham, Hethersett Aylsham Diss, Harleston
5 Urban Centre (higher density)	100	0.50	1.24	Norwich City – inner ring road or adjoining
6 Urban Centre (lower density)	100	2.02	5.00	Norwich City – inner ring road or adjoining
7 Urban Edge	100	4.05	10.00	Taverham, Hellesdon, Costessey Cringleford, Easton
8 Urban Edge	250	10.12	25.00	Taverham, Hellesdon, Drayton, Costessey, Thorpe Marriott Cringleford
9 Urban Edge	600	24.28	60.00	Norwich northern fringe land – Beeston, Sprowston, Rackheath

NB Please note that not all of these locations are proposed for growth and have only been included for indicative purposes.

The size and density proposed in each Typology will influence the site area stated by assessment of housing density and any on-site open space or green infrastructure requirements.

Please note that the developments considered in these viability appraisals are for mainstream residential development and not specialist accommodation such as homes aimed at the elderly, students or the traveling community.

*Caveat:* It is important to note that although locations are identified, these are hypothetical only and have only been identified to assist in the assessment of likely sales prices for that Typology. Further details regarding revenue is detailed in Part 2.

### **1.4.2 Existing Policy Requirements amended as proposed**

#### **1.4.2.1 Housing Density**

While there are no specific planning policies relating to density there is a general presumption that Norwich City will achieve in the order of 40 dwellings per Hectare and Broadland and South Norfolk Councils would look to achieve 25 dwellings per Hectare.

Each site is unique and particular localities and the sites topography will inevitably affect the level of density. However, these viability appraisals are hypothetical and based on a wide set of parameters. The starting point was to create a range of Typologies from 20 unit schemes to a 600 dwelling scheme. The areas shown are created from knowing the size of Typology rather than a notional land area and applying the Local Planning Authority preferred levels of dwelling density. Using practitioner judgement together with client clarification, Table 4 identifies the densities being achieved for each Typology.

To assist in this process, it was known that the previous HBS appraisal assumed a variety of densities were implied within the 7 Typologies assessed, however, following stakeholder consultation, an assessment and analysis has been subsequently undertaken by HBS of typical housing densities being achieved in the Greater Norwich area. These are then considered and applied as appropriate against the 9 Typologies assessed.

The housing densities for each Typology as stated below are per Gross Hectare or acre.



**Table 4: Housing Densities per Typology**

Typology:	No. Dw:	Area Ha:	Area Acres:	Density per Ha:	Density per Acre:
1 Service Village	20	0.71	1.75	28	11
2 Urban	20	0.27	0.67	74	30
3 Service Village	50	2.02	5.00	25	10
4 Main Town	75	3.04	7.50	25	10
5 Urban Centre (higher density)	100	0.50	1.24	199	81
6 Urban Centre (lower density)	100	2.02	5.00	49 (64)	20 (29)
7 Urban Edge	100	4.05	10.00	25 (26)	10 (11)
8 Urban Edge	250	10.12	25.00	25 (26)	10 (11)
9 Urban Edge	600	24.28	60.00	25 (38)	10 (16)

- The areas shown above are gross areas.
- Net areas have been calculated where Open Space or Green Infrastructure is assumed to be provided on site, by deducting the relevant areas calculated.
- This is applicable to Typologies 6,7 8 and 9 and the densities are shown in brackets.

The densities are assumed to be approximately 25 dwellings per Hectare for the large Urban Edge sites, Service Villages and Main Towns. The density rises dramatically for the Urban Centre which is where you would expect to achieve higher densities.

*Caveat:* Each site in practice is unique, the densities shown above are considered to be the levels which Local Planning Authority’s would wish to achieve. Any changes would lead to more or less dwellings and therefore the appraisals would alter.

In addition the larger sites will need to allow for Sustainable Urban Drainage (SUDS), provision of on-site Open Space and site wide infrastructure and while the larger sites in part do allow for this, what has not been taken into account is the expectation that the large sites will be expected to achieve as part of the overall scheme the provision of community, health and educational facilities as well as commercial and retail facilities in support of the development.

1.4.2.2 Housing Mix

The NPPF places the emphasis on local plans to provide the mix of dwellings required locally.

The Draft GNLP Strategy document has indicated that generally the mix of dwelling types developments should be providing are:

- 10% 1 bed flats
- 7% 2+bed flats
- 15% 2 bed houses
- 50% 3 bed houses
- 15% 4 bed houses
- 3% 5+bed houses

Clearly not all developments will achieve this mix. Differing localities will require a range of mixed dwelling types to ensure the development meets other important sustainable criteria.

The approach adopted when assessing what the individual Typologies may achieve has considered the scale of development and hypothetical location rather than any specific housing need, which may or may not have been identified. Practitioner assessment has therefore considered the draft GNLP proposals regarding mix together with additional client aspirations. The mix indicated in the Table 5 are therefore considered to be a reasonable approach.

**Table 5: Dwelling Mix per Typology expressed as a percentage**

Typology:	No. Dw:	1 or 2 bed flat:	2 bed house:	3 bed house:	4 bed house:
1 Service Village	20	0	15	45	40
2 Urban	20	30	35	35	0
3 Service Village	50	0	42	36	22
4 Main Town	75	21	39	32	8
6 Urban Centre	100	22	44	31	3
7 Urban Edge	100	10	29	50	11
8 Urban Edge	250	18	21	50	12
9 Urban Edge	600	16	16	54	15

Typology:	No. Dw:	1 bed flat:	2 bed flat:	3 bed flat:
5 Urban Centre	100	40	60	0

The GNLP document has categorised housing mix against 6 dwelling types. While the Typologies assessed only 4 categories, the percentage splits between those categories as shown above is not wholly inconsistent with GNLP’s Table. The percentage splits shown were adjusted following the outcome of an objective strategic housing market assessment and analysis of approved planning permissions by HBS, to establish typical patterns which were being delivered by the market. This is not a wholly scientific assessment of current developments but is considered to be generally in line with the scale of development which might be achieved in the hypothetical locations of the individual Typology by typical developers.

1.4.2.3 Size of Dwellings

The NPPF places the emphasis on local plans to provide the sizes of dwellings required locally.

The Draft GNLP document requires that all homes should be ‘*large enough to provide a good quality of life with adaptable homes built to meet the varied and changing needs of our communities*’.

To further support the preparation of the Local Plan, GNLP has prepared its own study with regard to Nationally described space standards, this document can be found in Appendix B.

With the above in mind the GIA’s provided per house type are shown in the Table 6.

**Table 6: Dwelling GIA’s**

Dwelling Type:		No. Beds:	GIA m <sup>2</sup> :
1	Flat/Apartment (T5 only)	1	50
2	Flat/Apartment (T5 only)	2	70
3	Flat/Apartment (T5 only)	3	86
4	Flat/Apartment	1 or 2	60
6	House	2	79
7	House	3	102
8	House	4	124

- GIA’s shown above meet technical housing standards – nationally described space standard March 2015
- These areas are applied to all Affordable Housing units

Each Typology assumes the same size house types are constructed. Table 6 identifies the GIA of the dwellings applied to the viability appraisals. In practice, individual developments will have a variety of house type and dwelling sizes.

*Caveat:* It is important for developers to judge the type of dwellings for specific sites having regard to the sites location and market of that location to generate revenue against the costs of that sites development. Where the developer has not judged its development well against that criteria or the market has altered, developers employ a number techniques to minimise risk or exposure.

#### 1.4.2.4 Affordable Housing

The NPPF states that the Government's objectives is to significantly boost the supply of homes. GNLP addresses this through its proposed housing strategy and the housing allocations in the Sites document.

The NPPF also states that major housing developments should meet the need for affordable homes on-site with at least 10% of the affordable homes available for affordable homeownership. Emphasis is placed on local plans to identify the amount of affordable houses needed locally.

The Draft GNLP Strategy document has identified that 33% of the housing should be affordable and 28% on sites which might be more difficult to develop. While there is an expectation that 33% affordable housing is to be achieved across the whole of the Greater Norwich area, 28% is acceptable in the geographic area of the City Centre<sup>5</sup>.

While the draft Local Plan indicates that there will be a flexible approach in relation to affordable housing sizes, types and tenures to allow for differing needs to be met in the three districts, these viability appraisals will be based on fixed criteria.

The initial approach taken was as follows:

1. To assess whether 33% affordable provision for each Typology on the basis of a 75:25 split between the tenures (ART and AHO)<sup>6</sup> with expected revenue at 60% and 75% of market value for the relevant house type could be achieved, and
2. Where 33% affordable provision on the basis stated above could not be achieved then seek to establish what level of affordable housing could be achieved.

The 'testing' of this policy requires that all other inputs into the viability appraisal are fixed.

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<sup>5</sup> The geographic location of the City Centre is referenced in the emerging Local Plan.

<sup>6</sup> Affordable Rented Tenure (ART) and Affordable Home Ownership (AHO).

Table 7: Dwelling Mix per Typology including Affordable provision

Typology:	Total No. Dw:	Market Units:	ART:	AHO:	% Mix:
<b>1 Service Village (20) 35% affordable housing</b>					
1-2 bed flats	0	0	0	0	0%
2 bed houses	3	0	3	0	15%
3 bed houses	9	5	2	2	45%
4+ bed houses	8	8	0	0	40%
<i>Totals</i>	<i>20</i>	<i>13</i>	<i>5</i>	<i>2</i>	<i>100%</i>
<b>2 Urban (20) 35% affordable housing</b>					
1-2 bed flats	6	4	1	1	30%
2 bed houses	7	4	2	1	35%
3 bed houses	7	5	2	0	35%
4+ bed houses	0	0	0	0	0%
<i>Totals</i>	<i>20</i>	<i>13</i>	<i>5</i>	<i>2</i>	<i>100%</i>
<b>3 Service Village (50) 28% affordable housing</b>					
1-2 bed flats	0	0	0	0	0%
2 bed houses	21	13	6	2	42%
3 bed houses	18	14	2	2	36%
4+ bed houses	11	9	2	0	22%
<i>Totals</i>	<i>50</i>	<i>36</i>	<i>10</i>	<i>4</i>	<i>100%</i>
<b>4 Main Town (75) 28% affordable housing</b>					
1-2 bed flats	16	10	6	0	21%
2 bed houses	29	21	6	2	39%
3 bed houses	24	17	4	3	32%
4+bed houses	6	6	0	0	8%
<i>Totals</i>	<i>75</i>	<i>54</i>	<i>16</i>	<i>5</i>	<i>100%</i>
<b>5 Urban Centre (100) 33% affordable housin</b>					
1-2 bed flats	40	20	15	5	40%
2 bed houses	60	47	10	3	60%
3 bed houses	0	0	0	0	0%
4+ bed houses	0	0	0	0	0%
<i>Totals</i>	<i>100</i>	<i>67</i>	<i>25</i>	<i>8</i>	<i>100%</i>
<b>6 Urban Centre (100) 33% affordable housing</b>					
1-2 bed flats	22	14	6	2	22%
2 bed houses	44	28	12	4	44%
3 bed houses	31	23	6	2	31%
4+bed houses	3	2	1	0	3%
<i>Totals</i>	<i>100</i>	<i>67</i>	<i>25</i>	<i>8</i>	<i>100%</i>

<b>7 Urban Edge (100) 33% affordable housing</b>					
1-2 bed flats	10	4	4	2	10%
2 bed houses	29	16	10	3	29%
3 bed houses	50	37	10	3	50%
4+bed houses	11	10	1	0	11%
<i>Totals</i>	<i>100</i>	<i>67</i>	<i>25</i>	<i>8</i>	<i>100%</i>
<b>8 Urban Edge (250) 33% affordable housing</b>					
1-2 bed flats	44	30	10	4	18%
2 bed houses	53	24	22	7	21%
3 bed houses	124	88	26	10	50%
4+ bed houses	29	25	4	0	12%
<i>Totals</i>	<i>250</i>	<i>167</i>	<i>62</i>	<i>21</i>	<i>100%</i>
<b>9 Urban Edge (600) 33% affordable housing</b>					
1-2 bed flats	96	60	28	8	16%
2 bed houses	93	44	30	19	16%
3 bed houses	324	228	76	20	54%
4+ bed houses	87	70	15	2	15%
<i>Totals</i>	<i>600</i>	<i>402</i>	<i>149</i>	<i>49</i>	<i>100%</i>
<ul style="list-style-type: none"> <li>• ART – Affordable Rented Tenure</li> <li>• AHO – Affordable Home Ownership</li> <li>• Affordable homes split between tenure types i.e. ART and AHO is 75:25</li> </ul>					

The mix provided above has a reasonable degree of practitioner judgement following consultation with the client and property professionals.

*Caveat:* No account is taken:

- of the Typology hypothetical locations in terms of differing types of tenure requirements, it is assumed that the size of affordable homes are as the market dwellings for the relevant house type and the mix broadly follows the general mix for the particular Typology, and
- specialist dwellings such as student accommodation, sheltered housing, housing with care, accommodation for the travelling community or custom-built of 5% on sites of 40 dwellings or more.

### 1.4.3 Emerging Policy Requirements

#### 1.4.3.1 Water, Energy and Lifetime Access

GNDP through the GNLP Strategy document is looking to introduce and implement a policy with regard to water, energy efficiency and renewable energy to meet Government policy where there is the expectation that Local Authorities will adapt to climate change.

The GNLP Strategy document provides the context with regard to this emerging policy. The practical impact on viability is as follows:

Water:- if the potential to set more demanding standards locally is established by Government up to 2016, the highest potential standard will be applied in Greater Norwich.

- *Housing developments will be required to meet Building Regulations Part G (amended 2016) water efficiency higher optional standard, or any equivalent successor.*

Energy:- to achieve energy efficiency and the promotion of sustainable energy supplies to assist growth delivery.

- *All new dwellings will provide a 20% carbon reduction against Part L of the 2013 Building Regulations (amended 2016), and*
- *Sustainability Statements will set out how development proposals for 100 dwellings plus will reduce energy demand and maximise opportunities for the use of sustainable local energy networks and battery storage.*

Access:- major developments to be designed to be adaptable to meet changing needs over time, thus enabling people to stay in their homes for longer.

- *20% of homes to meet this requirement.*

As a consequence of the above, a cost per dwelling has been assessed to cover these policy requirements. These sums are identified in the viability appraisals as follows:

Water	£9	per dwelling
Energy	£5,000	per dwelling
Access	£940	per qualifying dwelling

The appropriate level or multiplier to cover these additional costs were considered previously by HBS with reference to ECHarris 2011 report and UK Green Council Building Standards.

#### 1.4.3.2 Visitor Pressure Tariff Policy (RAMS)

Following recent cases elsewhere in England, Local Authorities are expected to consider and account for additional pressure from the cumulative effect of new developments on significant sites such as 'the Broads', North Norfolk coastal regions and the forest and heathlands of Breckland in addition to the more local environmentally sensitive locations.

GNDP are addressing this issue through the emerging Local Plan by proposing a visitor pressure tariff of:

- *£200 per dwelling.*

The monies collected will be collated and managed by appropriate public or quasi-public bodies or trusts operating within the GNLP area or outside as appropriate.

### **1.5 Date of Report**

A date of this viability study is the date of this Report.

Please note that the data used in these viability appraisals have been gathered from a variety of sources and over a period prior to the reporting of the findings.

These viability appraisals constitute advice only.





# Part Two

## Application

## PART 2 - APPLICATION

### 2.1 Greater Norwich Development Partnership approach viability

The purpose of this study and the framework in which these viability appraisals are undertaken have been set out in Part 1 – Context. This section provides the assumptions made for each of the viability appraisals. Part 3 provides the results and commentary.

In practice, there are a number of published reports which refer to how to approach development appraisals. The reports, which relate to ‘viability in planning’ are referred to as previously provided in Part 1.

Some important points to note and to ensure these appraisals are placed in context are that:

- The developer has relatively little control over costs associated with a development with perhaps the exception of economies of scale or a rapidly rising market and, to a lesser extent the choice with regard to the quality of a proposed development, and
- The assessment of land values is the most emotive of issues – what will landowner/s be prepared to sell/release land at, when development costs with little flexibility are known? Where development costs are too high, the development will simply not come forward.

The debate and academic discussion regarding land value will no doubt continue nationally and play out locally, however, with regard to these appraisals GNDP follow the accepted guidance and methodology.

The detail below sets out how to undertake a viability assessment (process) and what to do with the information gathered (methodology).

#### 2.1.1 Methodology

The RICS professional guidance Financial viability in planning: GN 94/2012 states:

*‘It is accepted practice that a residual valuation model is most often used.*

*This approach uses various inputs to establish the Gross Development Value (GDV) from which the Gross Development Cost is deducted.*

*GDC can include a Site Value as a fixed figure resulting in the developer’s residual profit (return) becoming the output which is then considered against a benchmark to assess viability.*

*Alternatively, the developer’s return (profit) is an adopted input to GDC, leaving a residual land value as an output from which to benchmark viability i.e. being greater or less than what would be considered an acceptable Site Value.’*

This report assesses:

- the site or land value as a fixed cost where the value assessed is the benchmark land value, and
- the developers profit for market housing is assessed at 20% of revenue and 6% of revenue for all affordable housing.

The basic outline of the elements considered are broadly as the diagram shows below. This diagram was first referenced in the Harman Guidance and is generally used by most of the Local Planning Authorities to illustrate where a development can be considered viable or not.

Figure 1:



### 2.1.2 Process

The process followed was as follows:

Assessment of GDV –

- i. Evidence based study of sales values for each of the Typologies general localities, and
- ii. Application of findings against each dwelling type considered.

Assessment of GDC –

- i. Evidence based assessment of all costs incurred where available i.e. land value, construction costs etc.,
- ii. For elements of the GDC where no evidence is available, we used practitioner judgement in collaboration with industry professionals and the client,
- iii. Application of planning policy costs against the particular Typology, and
- iv. Assessment of an acceptable developers return (profit) for the particular Typology.

Analysis of results –

- i. Establish whether the Typologies assessed are viable,
- ii. If not, why not?
- iii. What are the sensitivity thresholds?

For ease of reference, the order in which the assumptions are provided below, follow the presentation of the appraisals found in Appendix A.

## 2.2 Professional input and judgement

The RICS professional guidance Financial viability in planning: GN 94/2012 states that:

*'Valuation and formulating appropriate judgements is an intrinsic part of appraisals that contain a significant number of variables. These variables may change over time and will reflect the movement in the property market generally. The appraisal date should therefore be clearly stated and inevitable uncertainty addressed through sensitivity or similar analysis.'*

*It therefore falls to the practitioner to decide in each case if the advice being provided falls within the ambit of the RICS Valuation – Professional Standards (Red Book) or its exceptions'.*

This guidance is currently under review to reflect changes made to the 2019 National Planning Policy Framework and the updated Planning Policy Guidance in May 2019.

Also in May 2019 the RICS issued a mandatory Professional Statement: Financial viability in planning: conduct and reporting May 2019 (PS). This requires the practitioner to formally state that he/she has complied with the Professional Statement. Please see the beginning of this report for detailed statement.

In practice and application, the 'Harman Guidance' suggests that a collaborative approach is made at this stage of the viability testing process, so the assumptions made have been discussed and agreed with the client and its representative accordingly. This 'collaborative' approach is taken as a necessary step at this stage of the 'viability in planning' process. The author of this report seeks to apply the mandatory requirements of the RICS, where the author feels there may be disparity between the two publications this will be stated to ensure transparency.

With regard to the compilation of this Interim Viability Study the practitioner has sought other professional advice and where necessary, has taken further instructions from the client.

For avoidance of doubt this Interim Viability Study constitutes non Red Book advice only for the following reasons that:

- Each Typology assessed is hypothetical,
- There are many broad assumptions made,
- Averages are applied, and
- There is no specific valuation date rather a report date reflecting data sourced over time.

The information provided below provides reasoning and justification underpinning the data used in the viability appraisals together with:

- Additional commentary,
- Supporting evidence where relevant, and
- Any specific caveats or limitations if necessary.

It is important for the readers of this report to understand the context and limitations of these high-level assessments.

## 2.3 Gross Development Value (GDV)

### 2.3.1 Market Revenue

#### 2.3.1.1 Residential Market, Research and Data used

**2 bed house range from £225,000 to £255,000**  
**3 bed house range from £295,000 to £320,000**  
**4 bed house range from £360,000 to £385,000**  
**1, 2 & 3 bed Flats to range from £175,000 to £220,000**

The RICS September 2019: UK Residential Market Survey (national) states that:

*‘Activity remains subdued across the sales market with headline indicators on buyer demand and supply slipping into negative territory. Much of the anecdotal commentary is pointing to heightened economic and political uncertainty as a contributing factor behind the sluggish picture. Significantly, forward looking metrics imply that the market is unlikely to gain impetus over the next three months, though sentiment over the twelve-month horizon does appear to be a little more resilient.’*

*‘Price expectations for the coming three months stand at [amongst respondents 16% expected] a modest decline in prices on a UK-wide basis. However, the twelve month outlook points to a turnaround with +18% more respondent’s expecting prices to rise (rather than fall) over the coming year. Disaggregating the data, strong annual growth in prices is envisaged across eight out of twelve regions covered in the survey’.*

A culmination of agent views in East Anglia – *‘Brexit continues to bite, the market trickles along but gets easily distracted, reasonable offers few and far between, the usual increase in sales after the holiday period has not happened, once Brexit sorts itself out the market will be like a cork out of a bottle’.*

Therefore, the current state of the well documented global economy, Brexit and the recently called general election will all impact on the buoyancy of the housing market. Once the general election outcome is known and there is clarity over Brexit the market may settle although, in reality no one actually knows what will happen into 2020. The approach therefore, of the assessment of average sales prices for these viability appraisals, is to consider what information is reported at a local level over the past six months. The market has more recently dropped resulting in lower prices being achieved, that they will generally recover over the next twelve months as suggested in the RICS Market Report.

The previous Hamson Barron Smith Report provided their approach with regard to Residential Sales in section 3.1.2. Gross sale prices per house type were provided over 19 locations within the Greater Norwich Local Plan area together with averages for South Norwich and North Norwich, Norfolk and England.

In order to take the potential revenue to the next stage in the viability assessment process, an updated assessment of new build asking prices together with analysis of more recent known sales was undertaken using web based information such as Rightmove, Zoopla, NetHouse Prices and other practitioner knowledge.

The findings were then applied to each of the Typology locations to arrive at a potential sales rate per m<sup>2</sup> for each of the property types.

In order to help place this research in context and to check the house prices, a couple of web based sites – plumplot and zoopla were viewed to see what they considered the average house prices to be in Norfolk at the time this report was being prepared. These both stated the average house price to £253,000 with plumplot going on to state the price of newly built property to be at £260,000.

The National Office of Statistics UK House Price Index does identify differences between Norwich, South Norfolk and Broadland for new build properties, with an average of £300,000 being achieved in South Norfolk, marginally less at £300,000 in Broadland with both achieving higher prices for new build. In Norwich however, average house prices appear to have fallen to just less than £200,000 where existing property values are greater than new build.

Generally South Norfolk marginally out performs Broadland followed by Norwich achieving less than the Norfolk average. All areas perform less well than England and Wales.

Looking at these average figures per detached/semi/terrace and flats for each Authority, flats achieve the lowest average price per dwelling, detached achieve the highest rates per dwelling. When assessing these averages against the sales figures employed in these appraisals they are broadly in line given the high level nature of these assessments. It should be noted however that property prices are not particularly stable and in line with the market commentary there is scope for future prices to fall, conversely prices may rise.

The application of this researched data therefore was to apply an average potential sales rate used per dwelling type per Typology. The rates applied were denoted in Table 8.

Table 8: SALES RATES

Type:	Area m <sup>2</sup> :	Typology 1 (20) Service Village	Typology 2 (20) Urban	Typology 3 (50) Service Village	Typology 4 (75) Main Town	Typology 5 (100) Urban Centre	Typology 6 (100) Urban Centre	Typology 7 (100) Urban Edge	Typology 8 (250) Urban Edge	Typology 9 (600)
		£: £/m <sup>2</sup> :	£: £/m <sup>2</sup> :	£: £/m <sup>2</sup> :	£: £/m <sup>2</sup> :	£: £/m <sup>2</sup> :	£: £/m <sup>2</sup> :	£: £/m <sup>2</sup> :	£: £/m <sup>2</sup> :	£: £/m <sup>2</sup> :
Flat/Aprt T5 only	50	-	-	-	-	190,000	-	-	-	-
Flat/Aprt All ex T5	60	-	220,000	-	175,000	-	220,000	200,000	200,000	195,000
Flat/Aprt T5 only	70	-	-	-	-	220,000	-	-	-	-
Flat/Aprt T5 only	86	-	-	-	-	3,143	-	-	-	-
House 2 bed	79	225,000	255,000	225,000	225,000	-	255,000	250,000	250,000	245,000
House 3 bed	102	295,000	310,000	295,000	295,000	-	310,000	320,000	320,000	300,000
House 4 bed	124	360,000	2,903	360,000	360,000	-	360,000	385,000	385,000	375,000
House 5 bed	none	-	-	-	-	-	-	-	-	-
<b>Market Dwelling Income:</b>		4,355,000	3,450,000	10,295,000	13,650,000	14,140,000	18,070,000	20,490,000	49,785,000	117,130,000
GIA m <sup>2</sup> & £/m <sup>2</sup> :		1,502	1,066	3,571	4,737	4,290	5,646	6,518	15,772	39,012
Affordable Housing level %:		35%	35%	28%	28%	33%	33%	33%	33%	33%



### 2.3.2 Affordable Housing Revenue

The level of affordable housing to be delivered is planning policy driven. Commentary with regard to the GNLP requirement is provided in Part 1 1.4.2.4.

Given the number of ways in which a Registered Provider (Registered Social Landlord or RSL) may acquire property, a generalised and simplistic approach is adopted as follows.

#### 2.3.2.1 Affordable Rented Tenure (ART)

##### **Adjusted to 60% of the market value for the relevant house type per Typology**

It is assumed that the affordable dwellings will be transferred to a suitable Registered Landlord at 60% of market value for the relevant house type.

In practice, the percentage adopted could be as low as 45% of the market value or as much as 65% of the market value for the house type depending on the particular circumstances of the Registered Provider (Registered Social Landlord or RSL) or a Local Authority assessed housing need.

The previous HBS report cited 60% of market value following consultation with stakeholders and it is proposed to maintain this percentage at this stage of the viability assessment process.

*Caveat:* A change in the ART revenue can impact directly on scheme viability. Revenue can fluctuate for a number of reasons – alteration of dwelling numbers, the mix of dwellings proposed, the size of house types or where the tenure is altered to AHO or MV together with the timing of RSL payments etc. The alterations can be made by agreement with the Local Planning/Housing Authority.

#### 2.3.2.2 Affordable Home Ownership (AHO)

##### **Adjusted to 75% of the market value for the relevant house type per Typology**

It is assumed that these dwellings will be sold at 75% of market value for the house type.

In practice, the percentage adopted could be as low as 60% of the market value or as much as 80% of the market value for the house type.

*Caveat:* A change in the AHO revenue can impact directly on a schemes viability. Revenue can fluctuate for a number of reasons – alteration of dwelling numbers, the mix of dwellings proposed, the size of house types or where the tenure is altered to ART or MV. The alterations can be made by agreement with the Local Planning/Housing Authority.

### 2.3.3 Sales Fees

**Agent fees at 1.5% on market sales only**  
**Legal fees at 0.25% for market sales**  
**Legal fees to cover the transfer of both the AHO and ART**

General industry standards have been applied, these are:

- Agent fees at 1.5% on market sales only
- Legal fees at 0.25% for market sales, and
- Legal fees to cover the transfer of both the AHO and ART units is dependent on size of the transfer, these currently range from £5,000 to £12,500.

These fees are shown as being deducted directly from the capital receipts.

The previous HBS report assumed 3.5% of all capital receipts. There has been no direct analysis between the two reports as it is assumed that the inputs under 'Sales Fees' are relevant as at the date of this report.

*Caveat:* As revenue alters so will the level of fees incurred.

## 2.4 Gross Development Costs

### 2.4.1 Predevelopment and Property Standards relating to Cost

#### 2.4.1.1 Site Assembly

Site assembly including third party rights are frequently required to enable a development to proceed. These may entail many legal agreements between the parties and statutory undertakers.

In all cases it is assumed that any costs associated with 'site assembly' have already been incurred to a point where the landowner could sell or develop the site.

#### 2.4.1.2 Pre-planning Investigations

It is assumed that planning permission 'in principle' and 'without any onerous planning conditions' can be achieved for each of the Typologies proposed.

It is also assumed that the costs associated with 'pre-planning' as with 'site assembly' have already been incurred to a point where the landowner could sell or develop the site.

#### 2.4.1.3 Property Standards

It is assumed that all relevant property construction standards for new build properties are met such as basic Building Regulation Part L (as amended). Where there are additional standards required, details are provided below.

#### 2.4.1.4 Other

Any impact on the overall development of the 'buy to let' market or other housing specialisms are disregarded.

### 2.4.2 **Construction Costs**

#### 2.4.2.1 Building Cost Forecast

The RICS published Building Tender Prices Forecast on 23 September 2019 where it anticipated a rise in the building tender prices over the next 5 years by 27%.

Building costs are forecast to rise over the forecast period by 20%, while construction materials by 3% to 4% per annum over the period with annual wage awards expected to be around 3% to 5% per annum.

The RICS is expecting modest growth only in 2020 with stronger growth in the following year although this is expected to be as the consequence of growth in the infrastructure sector. However uncertainty prevails while Brexit seeks resolution.

The RICS publication goes on to assume that there will be no change in government, that there is political stability in the rest of the world and that any rise in the interest rate would put pressure on consumer spending. At the time this report was being finalised, there is discussion surrounding whether there may well be a drop in interest rates following on from far slower economic growth than expected and that a general election had been called for 12<sup>th</sup> December 2019.

While there continues to be uncertainty over relatively short time frames in whether the economy is picking up, remaining static or dropping, these appraisals attempt to capture the position with regard to development costs as far as it is able to do.

Detailed below therefore are how the costs applied have been assessed together with an explanation and qualification as necessary.

#### 2.4.2.2 Core Build Costs

**Build costs of £1,221 per m<sup>2</sup> applied to the GIA of each house type  
Build costs of £1,528 per m<sup>2</sup> applied to the GIA of each flat (apartment)**

The current core Build Cost applied uses the BCIS £/m<sup>2</sup> study as follows:

- rebased to Norfolk,
- dated 11 May 2019,
- application of the Median,
- Estate Housing Generally £1,221 per m<sup>2</sup> (810.1 BCIS reference),
- Flats (apartments) Generally £1,421 per m<sup>2</sup> (816. BCIS reference), and
- Includes contractor preliminaries.

Please note that:

- The rate per m<sup>2</sup> applied to the flats/apartments has been uplifted by 7½% to account for communal areas (£1,528 per m<sup>2</sup>),
- Garages as a separate item of cost, have not been applied to any of the Typologies. It is assumed that they will be constructed for the majority of the Typologies but that the cost is contained within the Site and Infrastructure costs,
- It is assumed that there are no significant onerous abnormal costs affecting the hypothetical Typology build costs. Please note that there has been discussion around the inclusion or otherwise of costs under this heading consideration, the decision in this report is that the contingency sum will go some way to reflect potential abnormal, and
- Small scheme adjustments are not necessary as the Typology numbers are 20 dwellings or above.

The Typologies assessed do not account for any site specific or potential onerous costs such as:

- Poor ground conditions – expensive foundation solutions required,
- Ground water protection – e.g. zones around Bowthorpe, or
- Flood Risk Areas/Zones.

#### 2.4.2.3 Additional emerging GNLP policy requirements

**Water £9 per dwelling, Energy £5,000 per dwelling  
Access £940 per dwelling x 20%**

The previous HBS report discussed ‘water, energy and access’ and how national reviews such as the Housing Standards Review, Fixing the Foundations Productivity Report, BREEAM etc. GNDP is seeking to incorporate and promote additional standards through the emerging Local Plan. The reasoning behind these proposed new policies is well documented in the draft Local Plan.

The impact on the overall build costs to achieve these higher standards have been assessed at:

- Water - £9 per dwelling to achieve optional higher efficiency
- Energy - £5,000 per dwelling to exceed Part L Building Regulations
- Access - £940 for 20% of dwellings only

Also see Part 1 for additional commentary.

**Table 9: Build Cost Summary**

Type:	Area m <sup>2</sup> :	No. Dw:	Total Area m <sup>2</sup> :	Build Cost:	Total Build Cost £:	Water Uplift £/Dw: 9	Energy Uplift £/Dw: 5,000	Access Uplift 20% £/Dw: 940
<b>Typology 1: Service Village (20)</b>								
Flat	60.0	0	-	1,528	-			
2 bed	79.0	3	237	1,221	289,377			
3 bed	102.0	9	918	1,221	1,120,878			
4+ bed	124.0	8	992	1,221	1,211,232			
Totals		20	2,147		<b>2,621,487</b>	<b>180</b>	<b>100,000</b>	<b>3,760</b>
<b>Typology 2: Urban (20)</b>								
Flat	60.0	6	360	1,528	550,080			
2 bed	79.0	7	553	1,221	675,213			
3 bed	102.0	7	714	1,221	871,794			
4+ bed	124.0	0	-	1,221	-			
Totals		20	1,627		<b>2,097,087</b>	<b>180</b>	<b>100,000</b>	<b>3,760</b>
<b>Typology 3: Service Village (50)</b>								
Flat	60.0	0	-	1,528	-			
2 bed	79.0	21	1,659	1,221	2,025,639			
3 bed	102.0	18	1,836	1,221	2,241,756			
4+ bed	124.0	11	1,364	1,221	1,665,444			
Totals		50	4,859		<b>5,932,839</b>	<b>450</b>	<b>250,000</b>	<b>9,400</b>
<b>Typology 4: Main Town (75)</b>								
Flat	60.0	16	960	1,528	1,466,880			
2 bed	79.0	29	2,291	1,221	2,797,311			
3 bed	102.0	24	2,448	1,221	2,989,008			
4+ bed	124.0	6	744	1,221	908,424			
Totals		75	6,443		<b>8,161,623</b>	<b>675</b>	<b>375,000</b>	<b>14,100</b>
<b>Typology 5: Urban Centre (100)</b>								
1 bed flat	50.0	40	2,000	1,528	3,056,000			
2 bed flat	70.0	60	4,200	1,528	6,417,600			
3 bed flat	86.0	0	-	1,528	-			
4+ bed	108.0	0	-	1,528	-			
Totals		100	6,200		<b>9,473,600</b>	<b>900</b>	<b>500,000</b>	<b>18,800</b>
<b>Typology 6: Urban Centre (100)</b>								
Flat	60.0	22	1,320	1,528	2,016,960			
2 bed	79.0	44	3,476	1,221	4,244,196			
3 bed	102.0	31	3,162	1,221	3,860,802			
4+ bed	124.0	3	372	1,221	454,212			
Totals		100	8,330		<b>10,576,170</b>	<b>900</b>	<b>500,000</b>	<b>18,800</b>
<b>Typology 7: Urban Edge</b>								
Flat	60.0	10	600	1,528	916,800			
2 bed	79.0	29	2,291	1,221	2,797,311			
3 bed	102.0	50	5,100	1,221	6,227,100			
4+ bed	124.0	11	1,364	1,221	1,665,444			
Totals		100	9,355		<b>11,606,655</b>	<b>900</b>	<b>500,000</b>	<b>18,800</b>
<b>Typology 8: Urban Edge (250)</b>								
Flat	60.0	44	2,640	1,528	4,033,920			
2 bed	79.0	53	4,187	1,221	5,112,327			
3 bed	102.0	124	12,648	1,221	15,443,208			
4+ bed	124.0	29	3,596	1,221	4,390,716			
Totals		250	23,071		<b>28,980,171</b>	<b>2,250</b>	<b>1,250,000</b>	<b>47,000</b>
<b>Typology 9: Urban edge (600)</b>								
Flat	60.0	96	5,760	1,528	8,801,280			
2 bed	79.0	93	7,347	1,221	8,970,687			
3 bed	102.0	324	33,048	1,221	40,351,608			
4+ bed	124.0	87	10,788	1,221	13,172,148			
Totals		600	56,943		<b>71,295,723</b>	<b>5,400</b>	<b>3,000,000</b>	<b>112,800</b>

2.4.2.4 Site and Infrastructure

Costs under this heading can be various and will particularly reflect the individual site. This study in line with the Harman Guidance looks to assess what a typical hypothetical cost associated with the provision of site wide infrastructure costs adjusted to the specific Typology criteria might be.

**10% to 20% of construction costs depending upon Typology**

The following are assumed to be contained within the Site and Infrastructure costs:

- Site wide infrastructure,
- Any off-site works,
- Site works per plot including garages,
- Landscaping,
- Additional utility expenses – sub stations etc., and
- Contractor Overhead and Profit (OHP).

Costs under this head are applied as a percentage of the construction/build costs.

The rates applied, particularly to the larger sites might account for earth movement, flood prevention measures in addition to SUDS etc.

**Table 10: Site and Infrastructure costs broken down per dwelling**

Typology:	No. Dw:	%age of Build Costs:	Total Site and Infrastructure Costs per Typology £:	£ per Dwelling:	
1	Service Village	20	10	272,543	13,627
2	Urban	20	10	225,103	11,255
3	Service Village	50	15	928,903	18,578
4	Main Town	75	15	1,282,710	17,103
5	Urban Centre	100	10	1,004,330	10,043
6	Urban Centre	100	10	1,129,597	11,296
7	Urban Edge	100	15	1,818,953	18,190
8	Urban Edge	250	20	6,055,884	24,224
9	Urban Edge	600	20	14,882,785	24,805

- Please note that the nature of Typologies 8 and 9 will require significant infrastructure which, when balanced against the contingency sum may be acceptably higher – as shown above.

It is assumed that there are no significant onerous abnormal costs affecting the hypothetical Typology Site and Infrastructure costs. Please see previous note relating to treatment of abnormal and use of a contingency sum.

*Caveat:* The application of a percentage to cover costs under this heading has been formulated from typical levels when analysing site development costs. This is not however an exact science and every site is different as stated.

2.4.2.5 Greenfield/Brownfield

**Allowance of £50,000 for Typologies 2 and 5  
Allowance of £200,000 for Typology 6**

All Typologies with the exception of Typologies 2, 5 and 6 are assumed to be greenfield sites capable of development without the need to incur onerous costs such as demolition or clean up.

The Urban Typologies – 2, 5 and 6 are assumed to be land which is likely to require a degree of remediation and appropriate allowances are made.

#### 2.4.2.6 Contingency

**The sum assessed is 3% of total construction costs**

It is usual industry practice when initially appraising a sites development potential to account for any unforeseen further development costs which might be incurred. The percentage applied to the total construction costs will be higher at the concept stage and as site investigations and development costs become known the sum can be reduced to reflect the level of risk at that particular stage of the development project.

In this case the rate applied to these appraisals is 3% of construction costs where construction costs include:

- The Core Build Costs,
- Water Policy,
- Energy Policy,
- Access Policy,
- Site and Infrastructure, and
- Brownfield (if applicable).

#### 2.4.2.7 Professional Fees

**The rate applied is 10% of Construction Costs as stated above**

Previously fee levels applied were 6% Architects, Planning Consultants at 1%, Quantity Surveying Fess at 0.5% and other Consultants at 2.5% giving a total of 10%.

While the rate applied for this report is the same, it could be argued that this level is higher than the industry standard. However, if the percentage incorporates the Enabling Fees such as Planning, Archaeology, Environmental and other specialist reports etc. to site commencement as well as the Statutory Development Fees, Design Fees, Project Management etc. then, 10% would be an acceptable level of Professional Fees.



### 2.4.3 Planning Policy Requirements

#### 2.4.3.1 Visitor Pressure Tariff Policy (RAMS)

**The payment level proposed is £200 per dwelling to include all affordable dwellings**

Following recent consideration with regard to the impact of developments individually and collectively on environmentally sensitive locations, Planning Authorities are expected to address this through the Local Plan. GNDP is therefore proposing a Visitor Pressure Tariff to be levied on all new developments. While this policy has not yet been adopted, it is reflected within the appraisals.

Payments will go towards organisations such as the RSPB or the Norfolk Wildlife Trust to maintain ecologically important sites that would otherwise be harmed by visitor pressure.

Also see Part 1 for additional commentary.

#### 2.4.3.2 Community Infrastructure Levy (CIL)

**The rate of £106.47/m<sup>2</sup> is applied for each qualifying dwelling**

CIL has been calculated by multiplying the GIA of the market dwellings by the relevant CIL rate per m<sup>2</sup>.

The relevant CIL rate per m<sup>2</sup> is shown on the table below. These viability appraisals apply the higher rate although it should be noted that a number of hypothetical locations of some of the Typologies could apply a lower multiplier.

Rather than adjust each Typology where there may be up to 3 subgroups to account for locality such as Typology 4 Main Town, a flat rate of £106.47/m<sup>2</sup> has been applied.

The higher rate was applied for consistency of approach.

**Table 11: 2019 CIL rates per m<sup>2</sup>**

Local Planning Authority:		Zone:	Charge per m <sup>2</sup> :
1	Norwich City	C3, C4	£106.47
		Flats 5 storey plus	£92.28
2	Broadland	Zone A	£106.47
		Zone B	£70.98
3	South Norfolk	Zone A	£100.63
		Zone B	£67.09
4	<b>Rate used throughout the viability assessments</b>		<b>£106.47</b>
<ul style="list-style-type: none"> <li>• CIL is applicable to Market Dwellings only</li> <li>• The sums shown do not include any allowance for garages</li> <li>• Taken from the relevant LPS Charging Schedule</li> </ul>			

CIL is applied to all market dwellings, however all the affordable housing dwellings have not been assessed for CIL. It is known that there had been some differences of opinion with regard to the inclusion or otherwise of affordable homes in the CIL calculation. If CIL is to be applied to the AHO dwellings then there would be a significant impact, particularly if the proposed development viability is marginal.

With regard to the timing of the payments, these have been considered within the appraisal and adjusted broadly to be in line with the South Norfolk Council Community Infrastructure Levy Guidance Note 5.

Although in practice the sums will be index linked, the appraisal is a 'snapshot in time' so therefore cannot be applied.

2.4.3.3i Planning Obligations - General open Space and Play Areas

**There are two separately identified payments for each Typology: Land Purchase costs if provided off-site, and Costs of equipping the play areas**

Broadland Council provided calculation tables as updated to June 2019; this Table assesses the contributions payable under Policy RL1 of Broadland Development Managements Policies (2015).

The criteria of each Typology has been applied and calculated accordingly; the resultant figures have been applied to the viability assessments unless adjusted (manually) to account for all or some of the general open space and play areas to be provided on site.

While these planning obligations relate to Broadland Council, they have been applied to all of the Typologies wherever they may be located.

The payments are programed to be paid on first occupation.

These planning obligations were not accounted for in the previous HBS report but are a legitimate cost which each of the Typologies would incur.

*Caveat:* The figures will alter each year.

2.4.3.3ii Suitable Alternative Natural Green Space (SANGS)

**There are two separately identified payments for each Typology: Land Purchase costs where provided off-site and Costs of equipping and maintaining the land**

Broadland Council provided calculation as updated to June 2019; this Table assess the contributions payable under Policy EN3 of Broadland Development Managements Policies (2015).

The criteria of each Typology has been applied and calculated accordingly; the resultant figures have been applied to the viability assessments unless adjusted (manually) to account for all or some of the Suitable Alternative Natural Green Space (SANGS) to be provided on site.

While these planning obligations relate to Broadland Council, they have been applied to all of the Typologies wherever they may be located.

The payments are programed to be paid on first occupation.

These planning obligations were not accounted for in the previous HBS report but are a legitimate cost which each of the Typologies would incur.

*Caveat:* The figures will alter each year.

**2.4.4 Other Outgoings**

2.4.4.1 Marketing Showrooms

**Allowance of £25,000 per showroom where applicable**

Generally the approach is 1 showroom for every 50 dwellings at a cost of £25,000 per showroom.

**2.4.5 Land Value (Site Value) and Costs associated**

2.4.5.1 Benchmark Land Values

Viability guidance on land value for the purpose of viability assessments is defined as follows:

*'A benchmark land value should be established on the basis of the existing use value (EUV) of the land, plus a premium for the landowner. The premium for the landowner should reflect the minimum return at which it is considered a reasonable landowner would be willing to sell their land. The premium should provide a reasonable incentive, in comparison with other options available, for the landowner to sell land for development while allowing a sufficient contribution to fully comply with policy requirements. Landowners and site purchasers should consider policy requirements when agreeing land transactions. This approach is often called 'existing use value plus.'*

The process of establishing a reasonable premium is:

*'an iterative process informed by professional judgement and must be based upon the best available evidence informed by cross collaboration.....Any data used should reasonably identify any adjustments necessary to reflect the cost of policy compliance (including affordable housing), or differences in the quality of land, site scale, market performance of different building use types and reasonable expectations of local landowners. Local Authorities can request data on the price paid for land (or the price expected to be paid through an option agreement).'*

Existing Use Value should be:

*'informed by market evidence of current uses, costs and values. Market evidence can also be used as a cross check of benchmark land value but should not be used in place of benchmark land value.*

*This evidence should be based upon developments which are fully compliant with emerging or up to date plan policies....where evidence is not available adjustments may be made.'*

To understand how to arrive at the benchmark land value (as a fixed cost) where there is an incentive or premium payable to the landowner to ensure that land is released for development, the following should be considered:

Step 1 - all land has an existing use value (EUV) this may be agricultural or potentially commercial or industrial for brownfield sites together with the right to implement any permitted development. It does not include any 'hope value'. This value can be established by using direct comparable transactions obtained from a variety of sources such as Land Registry, web based property data, auction results etc. and comparing and adjusting accordingly to the subject property.

Step 2 - assessment of the premium (the sum equating to the 'plus' in the EUV+) which is paid to the landowner as a reasonable incentive to bring the land forward for development.

2.4.5.2 GNDP Benchmark Land Values

**Range from £247,100 per Ha to £2.4m per Ha**

There are three key elements influencing the land value benchmarking (Threshold Land Values) used within these viability assessments:

1. The Harman and other guidance to the assessment of land values as indicated above,
2. The outcome of a Workshop in January 2017 seeking industry views on the then prevailing land values, and
3. Prevailing market conditions around the date of these viability assessments as a cross check only.

The findings and conclusion of the previous HBS report concluded that £300,000 to £600,000 per acre would be used even though it was clearly indicated that:

- there were larger development sites which might only attract £150,000 per acre while other locations could achieve far higher than £600,000 per acre,
- there were inherent difficulties in applying the right land value to the particular Typology, and
- should the land value per acre be applied to the gross area or the net area?

It has been agreed following the HBS report that:

- Further investigations and analysis regarding land values would be undertaken, these will continue to be a holistic approach given the nature of these viability assessments, the values assessed per Typology are shown below in Table 12,
- The benchmark land values will reflect the NPPF guidance 2019, and
- The benchmark land values will be applied to the Gross Area unless otherwise stated.

It is assumed that the hypothetical Typology's:

- Are capable of achieving planning permission,
- That the land has been adequately assembled if relevant,
- That there are no onerous third party rights required or interests which may create a ransom situation,
- That there are no onerous ground conditions or contamination etc.,
- That the land can be adequately serviced, and
- That there are no other matters, which might affect the sites value.

Current market

The following were considered but only for the purposes of cross referencing the benchmark land values assessed:

- Actual land transactions and knowledge of un reported land deals or valuations,
- Current land on the market, and
- Market Reports.

Resultant benchmark land values

In considering what an appropriate benchmark land value (BLV) for each Typology is, the latest guidance contained within the NPPF has been applied and has been established on the basis of the existing use value (EUV) of the land, plus a premium to the landowner. That is, the 'existing use value plus ' approach.

It is assumed, other than for the Urban Typologies (2, 5 and 6) that the EUV is based upon agricultural values equating to £24,710 per Ha (£10,000 per acre). The premium has been assessed based upon a multiplier of the EUV of between 10 and 20 times. The multiplier applied to the EUV in each typology reflects the site size and density and can be summarised in Table 12a and 12b:

**Table 12a: Benchmark land values**

Typology:		EUV Multiplier:	EUV+ per Ha £:
1.	Service Village	10	£494,210
3.	Service Village	17.5	£433,168
4.	Main Town	17.5	£432,432
7.	Urban Edge	17.5	£432,099
8.	Urban Edge	15	£370,658
9.	Urban Edge	10	£247,105

The Urban Typologies (2, 5 and 6) have been assessed based upon an assumed site value for each Typology to which a premium of 30% has been applied that is EUV+30% and can be summarised as follows:

**Table 12b: Benchmark land values (urban)**

Typology:	EUV £:	EUV Premium:
2. Urban	£500,000	30%
5. Urban Centre	£400,000	30%
6. Urban Centre	£1,000,000	30%

It is considered that the BLV for each Typology provides the landowner with an appropriate premium to existing use value and reflects the minimum return at which a reasonable landowner would be willing to sell their land.

2.4.5.2 Stamp Duty Land Tax (SDLT)

**Standard approach adopted**

In each case the Land Value for each Typology is known and therefore the SDLT can be calculated accordingly.

A basic SDLT calculator was used to arrive at the relevant sum.

2.4.5.3 Fees

**Allowance of 1.25%**

Shown at 1.25% of the assessed Land Payment, assume includes:

- Legal,
- Agent, and
- Other fees.

**2.4.6 Other Appraisal Elements**

2.4.6.1 Interest Rate Applied

**Interest Rate applied 6.5%**

6.5% has been applied to include bank arrangement costs.

The rate has been applied quarterly on debt balances and assumes that each Typology assessed requires 100% funding i.e. no use of any equity funding which might be available to some developers.

In practice developers will be able to achieve more favourable or indeed less favourable rates depending on their own circumstances including track record.

In addition applying the interest per month may also achieve a small saving and improve cash flow.

Applying an Accrual Rate may also achieve a small saving and improve cash flow.

While 6.5% may be considered high given the prevailing bank rates, the assumption is to charge interest on all funds employed and therefore funding of the whole project could be considered risky.

2.4.6.2 Sales/Disposals Programme

**Market and Affordable Homeownership say 2 – 4 dwellings per month  
Affordable Rented Tenure in 4 equal instalments**

The market dwellings and the affordable home ownership dwellings are averaged out (straight-line) over the hypothetical sales period rather than any one dwelling at a time. This is not an uncommon approach when proposed developments are at the embryonic or concept stage.

The development period tends to work on sales of 2 to 3 or 4 per month but this varies Typology to Typology.

With regard to the affordable rented dwellings, it is understood that Registered Landlords will pay in tranches which can assist in the schemes cash flow. With regard to this income the appraisals show 4 equal instalments across the lifetime of the Typology assessed.

No account is given with regard to the current drop off, of sales per month due the current economic climate and no account is given to a developer choosing to drop house prices significantly, with or without incentives, to maintain a decent sales rate per month.

*Caveat:* Should the sales rate per month significantly alter the impact is likely to be on cash flow, if sales are not meeting the 2 to 4 dwellings per month consistently this could ultimately affect viability if the Typology is deemed marginal.



2.4.6.3 Build Programme

**In accordance with the Typology size**

Costs are programmed in accordance with the scheme size and when the practitioner considers the hypothetical payments are likely to be made. No account is made for Phasing particularly relating to larger scale development.

*Caveat:* As construction costs are one of the most significant cost any impact or variance on program could significantly and adversely affect the Typologies viability.

2.4.6.4 VAT

**Not assessed**

It is assumed that either VAT does not arise or that it can be recovered in full.

**2.4.7 Developers Profit**

**Market Development Developers Return at 20%  
Affordable Housing developers Return at 6%**

If Income exceeds Cost then a level of profit is achieved, this is either expressed as a percentage of Profit on Cost or Profit on Revenue.

The Developers Profit or Return on capital employed is usually assessed at a level suitable for the risks the development might incur.

Risks can be many and varied.

While there is no one industry standard developers profit percentage, historically 20% has been applied on Cost (a lower percentage would be applied against Revenue on the assumption Revenue is greater than Cost). However, developers will and do accept different levels depending on their own organisations requirements including their particular financial arrangements.

With regard to these appraisals and in accordance with viability guidance where there is an assumption of between 15 and 20% of gross development value, a 20% profit on revenue of the market dwellings is sought with a 6% return on the affordable units.

All Typologies, based on the date input, show a satisfactory return. See Summary Table relating to Version 11.



**Table 13: Summary of Viability Appraisal Inputs**

<b>Gross Development Value</b>	
<b>Market Sales</b>	2 bed house range from £225,000 to £255,000 3 bed house range from £295,000 to £320,000 4 bed house range from £360,000 to £385,000 1, 2 & 3 bed Flats to range from £175,000 to £220,000
<b>Affordable Rent Tenure</b>	Adjusted to 60% of the Market Value for the relevant house type per Typology
<b>Affordable Home Ownership</b>	Adjusted to 75% of the Market Value for the relevant house type per Typology
<b>Sales Fees</b>	Agent Fees at 1.5% on Market Sales only Legal Fees at 0.25% for Market Sales Legal Fees to cover the transfer of both the AHO and ART
<b>Program</b>	Market and Affordable Homeownership say 2 – 4 dwellings per month Affordable Rented Tenure in 4 equal instalments

<b>Development Costs</b>	
<b>Core Build Costs</b>	Build costs of £1,221 per m <sup>2</sup> applied to the GIA of each house type Build costs of £1,528 per m <sup>2</sup> applied to the GIA of each flat (apartment)
<b>Energy Policy</b>	The sum of £5,000 per dwelling is applied
<b>Water Policy</b>	The sum of £9 per dwelling is applied
<b>Access Policy</b>	The sum of £940 per dwelling but adjusted to meet policy requirements that 20% of dwellings are to comply
<b>Site and Infrastructure</b>	Costs range from 10% to 20% depending upon Typology type
<b>Brownfield</b>	Allowance of £50,000 for Typologies 2 and 5 Allowance of £200,000 for Typology 6
<b>Contingency on Build Costs</b>	The sum assessed is 3% of Build Costs

## GREATER NORWICH LOCAL PLAN: INTERIM VIABILITY STUDY

<b>Professional Fees</b>	The rate applied is 10% of Construction Costs as stated above
<b>Visitor Policy Payment</b>	The payment level proposed is £200 per dwelling to include all Affordable dwellings
<b>CIL</b>	The rate of £106.47/m <sup>2</sup> is applied for each qualifying dwelling
<b>Planning Obligations</b>	There are two separately identified payments for each typology: <ul style="list-style-type: none"> <li>• Off-site green Infrastructure Land Purchase, Equipment and Maintenance, and</li> <li>• Open Space Land Purchase, Equipping and Maintenance</li> </ul>
<b>Marketing/Showrooms</b>	Allowance of £50,000 per showroom where applicable
<b>Benchmark Land Values</b>	Range from £247,000 per Ha to £2.4m per Ha (Range from £100,000 per acre to £970,000 per acre)
<b>SDLT</b>	Standard approach adopted
<b>Land Payment Fees</b>	Allowance of 1.25%
<b>Interest rate</b>	Interest Rate applied 6.5%
<b>Program/Timing of Payments</b>	In accordance with the Typology size
<b>Developers Profit</b>	Market Development Developers Return at 20% Affordable Housing developers Return at 6%

# Part Three

## Conclusion

## **PART 3 – IN CONCLUSION**

### **3.1 Summary**

Table 14 identifies the key financial data and analysis of the appraisal sums per Typology. The data input is taken from the PDS appraisal summary's which are located in Appendix A.

The Table format enables the reader to see one Typology alongside another and assists in checking the reasonableness of the headline revenue and costs.

It also shows where there is a surplus after all costs associated with the development are taken into account including affordable housing at either 28% or 33% and other emerging or exiting policies. This 'surplus' or 'cushion' demonstrates that the particular Typology is viable. Had the surplus line been zero, the Typology would still have been viable but with no leeway with regard to any additional costs which might be incurred.

Table 14 a: FINANCIAL SUMMARY

11-Sep-19

Item	Unit of Measurement	Typo 1 Service Village	Typo 2 Urban	Typo 3 Service Village	Typo 4 Main Town	Typo 5 Urban Centre	Typo 6 Urban Centre	Typo 7 Urban Edge	Typo 8 Urban Edge	Typo 9 Urban Edge
No. Dwellings		20	20	50	75	100	100	100	250	600
Affordable Housing	%	35%	35%	28%	28%	33%	33%	33%	33%	33%
Land Area (Gross)	Acres	1.75	0.67	5.00	7.50	1.24	5.00	10.00	25.00	60.00
	Ha	0.71	0.27	2.02	3.04	0.50	2.02	4.05	10.12	24.28
Density (Gross)	Dw / Acre	11	30	10	10	81	20	10	10	10
	Dw / Ha	28	74	25	25	199	49	25	25	25
Off-Site Green Infra Area Req	Ha	0.2100	0.1620	0.4800	0.6400	0.8000	0.8300	0.9240	2.2800	5.6000
Open Space Land Req	Ha	0.1140	0.0880	0.2620	0.3490	0.4340	0.4520	0.5040	1.2400	3.0540
	Ha	0.3240	0.2500	0.7420	0.9890	1.2340	1.2820	1.4280	3.5200	8.6540
	Acres	0.8006	0.6178	0.5255	0.2682	3.0493	3.1679	3.5287	8.6981	21.3845
	On or off?	All off site	All off site	All off site	All off site	All off site	Green off-site Open space on site	Green off-site 50% open on site	Green off-site 50% open on site	All on site
Land Area (Net of open space only)	Ha	0.71	0.27	2.02	3.04	0.50	1.57	3.79	9.50	15.63
	Acres	1.75	0.67	2.9	11.19	1.24	3.88	9.38	23.47	38.62
Density (Net of open space only)	Dw / Acre	11	30	18	7	81	26	11	11	16
	Dw / Ha	28	74	25	25	199	64	26	26	38
Capital Receipt Totals	Market	4,355,000	3,450,000	10,295,000	13,650,000	14,140,000	18,070,000	20,490,000	49,785,000	117,130,000
	ART	759,000	810,000	1,596,000	2,148,000	3,030,000	3,960,000	4,131,000	10,416,000	24,741,000
	AHO	442,500	356,250	780,000	1,001,250	1,207,500	1,560,000	1,582,500	4,312,500	9,723,750
	Total	5,556,500	4,616,250	12,671,000	16,799,250	18,377,500	23,590,000	26,203,500	64,513,500	151,594,750
	Ave/Dw	277,825	230,813	253,420	223,990	183,775	235,900	262,035	258,054	252,658
Market Unit Sales Analysis	GIA m <sup>2</sup>	1,502	1,066	3,571	4,737	4,290	5,646	6,518	15,772	39,012
	Av.m <sup>2</sup> /Market Dw	2,899	3,236	2,883	2,882	3,296	3,200	3,144	3,157	3,002
Construction Costs	Total	3,352,275	2,768,763	7,926,642	10,954,789	12,353,259	13,893,920	15,521,734	40,271,630	98,970,518
	Ave/Dw	167,614	138,438	158,533	146,064	123,533	138,939	155,217	161,087	164,950.86
Planning Policy Payments	Totals	265,887	196,171	623,329	830,169	826,499	902,568	1,062,955	2,588,816	4,974,116
	Ave/Dw	13,294	9,809	12,467	11,069	8,265	9,026	10,630	10,355	8,290
Land Value	Payment	350,000	650,000	875,000	1,312,500	520,000	1,300,000	1,750,000	3,750,000	6,000,000
	E/acre	200,000	970,149	175,000	175,000	419,355	260,000	175,000	150,000	100,000
	SDLT	7,000	22,000	33,250	55,125	15,500	54,500	77,000	177,000	289,500
	Fees	4,375	8,125	10,938	16,406	6,500	16,250	21,875	46,975	75,000
	Total	361,375	680,125	919,188	1,384,031	542,000	1,370,750	1,848,875	3,973,975	6,364,500
	Ave/Dw	18,069	34,006	18,384	18,454	5,420	13,708	18,489	15,895.90	10,608
Interest 6.5%	Total	63,859	73,527	222,074	333,059	914,535	1,047,964	434,034	794,927	1,462,609
	Ave/Dw	3,193	3,676	4,441	4,441	9,145	10,480	4,340	3,180	2,438
Profit	On Cost	34.72%	22.00%	27.97%	22.05%	23.43%	34.52%	35.88%	32.52%	33.08%
	On Revenue	25.77%	18.03%	21.86%	18.07%	18.98%	25.66%	26.41%	24.54%	24.86%
	Total	1,431,891	832,289	2,769,605	3,034,827	3,488,757	6,053,573	6,919,826	15,830,952	37,685,732
	Ave/Dw	71,595	41,614	55,392	40,464	34,888	60,536	69,198	63,324	62,810
Analysis of Profit on Revenue	Profit over Revenue	1,431,891	832,289	2,769,605	3,034,827	3,488,757	6,053,573	6,919,826	15,830,952	37,685,732
	Equals	5,556,500	4,616,250	12,671,000	16,799,250	18,377,500	23,590,000	26,203,500	64,513,500	151,594,750
		25.77%	18.03%	21.86%	18.07%	18.98%	25.66%	26.41%	24.54%	24.86%
	Market Rev	4,355,000	3,450,000	10,295,000	13,650,000	14,140,000	18,070,000	20,490,000	49,785,000	117,130,000
	DP say 20%	871,000	690,000	2,059,000	2,730,000	2,828,000	3,614,000	4,098,000	9,957,000	23,426,000
	Profit say	871,000	690,000	2,059,000	2,730,000	2,828,000	3,614,000	4,098,000	9,957,000	23,426,000
	ART	759,000	810,000	1,596,000	2,148,000	3,030,000	3,960,000	4,131,000	10,416,000	24,741,000
	AHO	442,500	356,250	780,000	1,001,250	1,207,500	1,560,000	1,582,500	4,312,500	9,723,750
	Total	1,201,500	1,166,250	2,376,000	3,149,250	4,237,500	5,520,000	5,713,500	14,728,500	34,464,750
	DP say 6%	72,090	69,975	142,560	188,955	254,250	331,200	342,810	883,710	2,067,885
	Adj Profit say	72,090	69,975	142,560	188,955	254,250	331,200	342,810	883,710	2,067,885
	Total adj Profit say	943,090	759,975	2,201,560	2,918,955	3,082,250	3,945,200	4,440,810	10,840,710	25,493,885
	PDS Profit shown	1,431,891	832,289	2,769,605	3,034,827	3,488,757	6,053,573	6,919,826	15,830,952	37,685,732
Typo Surplus or Insufficient Profit	Difference	488,801	72,314	568,045	115,872	406,507	2,108,373	2,479,016	4,990,242	12,191,847

### 3.2 Sensitivity Analysis

A simple sensitivity analysis has been undertaken as follows:

- i. Plus 5% Build Costs,
- ii. Plus 10% Build Costs,
- iii. Minus 5% Gross Development Value,
- iv. Minus 10% Gross development Value,
- v. Plus 5% Build Costs and minus 5% Gross Development Value, and
- vi. Plus 10% Build Costs and minus 10% Gross Development Value.

All other inputs such as planning obligations, land acquisition costs and build programme remain the same. All other sums which are assessed as a multiplier will alter as either the build costs or the gross development value or both alter; these sums would be finance costs and developers profit.

Table 15 overleaf identifies at what point the 'surplus' or 'cushion' for each Typology becomes viable.

It is reasonable to say, based on the data input as provided in this study, that Typologies are incapable of absorbing a 10% increase in build costs and a 10% reduction in the gross development value. However, a number of Typologies could absorb both a 5% increase in build costs and a 5% decrease in gross development value.

Three of the Typologies however, cannot absorb any increase in build costs or decrease in gross development value.

It should be noted that only two elements – build costs and gross development value, albeit those which have the most significant impact on viability, have been tested. Other combinations such as changes to land value, CIL or planning obligations can also significantly impact on viability.

### 3.3 Conclusions

The Typologies assessed are considered to be viable based on the data inputs as outlined in this Interim Viability Study. The key viability issues are:

- That affordable housing can be delivered at 33% (28% for Typology 2 and 3),

And

- That CIL at current rates and the other emerging policies can be supported,

Provided

- The landmark bench values are accepted,
- Revenue levels proposed are maintained, and
- Other development costs including developers profit as outlined in this Interim Viability Study, are maintained.



## Greater Norwich Local Plan: Interim Viability Study - Sensitivity Analysis

Table 15: Viable Schemes at plus or minus 5% and 10% of Gross Development Value and Build Costs

	Reported Surplus	+ 5% Build Costs	+ 10% Build Costs	- 5% Gross Development Value	- 10% Gross Development Value	+ 5% Build Costs & - 5% GDV	+ 10% Build Costs & - 10% GDV
Typology 1 35% AH	488,801	√	√	√	√	√	×
Typology 2 35% AH	72,314	×	×	×	×	×	×
Typology 3 28% AH	568,045	√	×	√	×	×	×
Typology 4 28% AH	115,872	×	×	×	×	×	×
Typology 5 33% AH	406,507	×	×	×	×	×	×
Typology 6 33% AH	2,108,373	√	√	√	√	√	×
Typology 7 33% AH	2,479,016	√	√	√	√	√	×
Typology 8 33% AH	4,990,242	√	√	√	×	√	×
Typology 9 33% AH	12,191,847	√	√	√	×	√	×

Deficit or surplus after 20% developers profit on market units and 6% developers profit on affordable units

# Appendix A

## Appraisals

Typology 1 - Service Village 20 dwellings (Version 11) - (Appraisal)

Market Units (13)

Capital Receipt dwellings			4,355,000
Direct Sale Fees		1.50 %	-65,325
Direct Sale Legal Fees		0.25 %	-10,888
		Total	4,278,788

ART Units (5)

RSL Payment 1 - 25% Capital Receipt			189,750
RSL Payment 2 - 25% Capital Receipt			189,750
RSL Payment 3 - 25% Capital Receipt			189,750
RSL Payment 4 - 25% Capital Receipt			189,750
Direct Sale Legal Fees ART & AHO		5,000 a	-5,000
		Total	754,000

AHO Units (2)

Capital Receipt dwellings			442,500
		Total	442,500

Construction Costs

Construct Dwellings 20 no			-2,621,487
Policy - water			-180
Policy - energy			-100,000
Policy - access 20% dw			-3,760
Site and Infrastructure Costs		10.00 %	-272,543
Contingency		3.00 %	-81,763
Professional Fee		10.00 %	-272,543
		Total	-3,352,275

Planning Policy Payments

Visitor Policy	20.00 units at	200.00 a	-4,000
CIL - payment 1 25%			-39,979
CIL - payment 2 75%			-119,938
PC - off site green infra land purchase			-26,211
PC - off site green infra equip & main			-29,803
PC - open space land purchase			-14,285
PC - open space equipping & maintenance			-31,671
		Total	-265,887

Land Value

Land Payment	1.75 acres at	200,000.00 a	-350,000
SDLT			-7,000
Fees			-4,375
		Total	-361,375

Debt Interest - Overall	100.00 % of Cost	-4,060,750	(48.92% Used)
Charged Quarterly			
Compounded Quarterly	6.50 %pa	Interest	-63,859
Profit/Cost	34.72%	Revenue	5,556,500
Profit/Revenue	25.77%	Outgoings	-4,124,609
IRR Excl.Intr	150.69%pa	Profit	1,431,891

35% AH due to rounding, preferably looking for 33%

75:25 tenure split

ART @ 60% MV

AHO @ 75% MV

Typology 2 - Urban 20 dwellings (Version 11) - (Appraisal)

Market Units (13)

Capital Receipt dwellings			3,450,000
Direct Sale Fees	1.50 %		-51,750
Direct Sale Legal Fees	0.25 %		-8,625
	Total		3,389,625

ART Units (5)

RSL Payment 1 - 25% Capital Reciept			202,500
RSL Payment 2 - 25% Capital Reciept			202,500
RSL Payment 3 - 25% Capital Reciept			202,500
RSL Payment 4 - 25% Capital Reciept			202,500
Direct Sale Legal Fees ART & AHO	5,000 a		-5,000
	Total		805,000

AHO Units (2)

Capital Receipt dwellings			356,250
	Total		356,250

Construction Costs

Brownfeild Allowance			-50,000
Construct Dwellings 20 no			-2,097,087
Policy - water			-180
Policy - energy			-100,000
Policy - access 20% dw			-3,760
Site and Infrastructure Costs	10.00 %		-225,103
Contingency	3.00 %		-67,531
Professional Fee	10.00 %		-225,103
	Total		-2,768,763

Planning Policy Payments

Visitor Policy	20.00 units at	200.00 a	-4,000
CIL - payment 1 25%			-28,374
CIL - payment 2 75%			-85,123
PC - off site green infra land purchase			-20,220
PC - off site green infra equip & main			-22,991
PC - open space land purchase			-11,020
PC - open space equipping & maintenance			-24,443
	Total		-196,171

Land Value

Land Payment			-650,000
SDLT			-22,000
Fees			-8,125
	Total		-680,125

Debt Interest - Overall	100.00 % of Cost	-3,710,434	(51.95% Used)
Charged Quarterly			
Compounded Quarterly	6.50 %pa	Interest	-73,527
Profit/Cost	22.00%	Revenue	4,616,250
Profit/Revenue	18.03%	Outgoings	-3,783,961
IRR Excl.Intr	78.48%pa	Profit	832,289

35% AH due to rounding, preferably looking for 33%

75:25 tenure split

ART @ 60% MV

AHO @ 75% MV

Typology 3 - Service Village 50 dwellings (Version 11) - (Appraisal)

<b>Market Units (36)</b>			
Capital Receipt dwellings			10,295,000
Direct Sale Fees	1.50 %		-154,425
Direct Sale Legal Fees	0.25 %		-25,738
	Total		10,114,838
<b>ART Units (10)</b>			
RSL Payment 1 - 25% Capital Receipt			399,000
RSL Payment 2 - 25% Capital Receipt			399,000
RSL Payment 3 - 25% Capital Receipt			399,000
RSL Payment 4 - 25% Capital Receipt			399,000
Direct Sale Legal Fees ART & AHO	5,000 a		-5,000
	Total		1,591,000
<b>AHO Units (4)</b>			
Capital Receipt dwellings			780,000
	Total		780,000
<b>Construction Costs</b>			
Construct Dwellings 50 no			-5,932,839
Policy - water			-450
Policy - energy			-250,000
Policy - access 20% dw			-9,400
Site and Infrastructure Costs	15.00 %		-928,903
Contingency	3.00 %		-185,781
Professional Fee	10.00 %		-619,269
	Total		-7,926,642
<b>Planning Policy Payments</b>			
Visitor Policy	50.00 units at	200.00 a	-10,000
CIL - payment 1 25%			-95,051
CIL - payment 2 75%			-285,153
PC - off site green infra land purchase			-59,911
PC - off site green infra equip & main			-68,131
PC - open space land purchase			-32,651
PC - open space euiping & maintenance			-72,432
	Total		-623,329
<b>Other Outgoings</b>			
Marketing Showrooms	1.00 units at	25,000.00 a	-25,000
	Total		-25,000
<b>Land Value</b>			
Land Payment	5.00 acres at	175,000.00 a	-875,000
SDLT			-33,250
Fees @ 1.25% LP			-10,938
	Total		-919,188
<b>Debt Interest - Overall</b>			
Charged Quarterly	100.00 % of Cost	-9,679,321	(36.99% Used)
Compounded Quarterly	6.50 %pa	Interest	-222,074
Profit/Cost	27.97%	Revenue	12,671,000
Profit/Revenue	21.86%	Outgoings	-9,901,395
IRR Excl.Intr	67.04%pa	Profit	2,769,605

28% AH

75:25 tenure split

ART 60% of MV

AHO 75% of MV

Typology 4 - Main Town 75 dwellings (Version 11) - (Appraisal)

<b>Market Units (54)</b>			
Capital Receipt dwellings			13,650,000
Direct Sale Fees	1.50 %		-204,750
Direct Sale Legal Fees	0.25 %		-34,125
		<b>Total</b>	<b>13,411,125</b>
<b>ART Units (16)</b>			
RSL Payment 1 - 25% Capital Receipt			537,000
RSL Payment 2 - 25% Capital Receipt			537,000
RSL Payment 3 - 25% Capital Receipt			537,000
RSL Payment 4 - 25% Capital Receipt			537,000
Direct Sale Legal Fees ART & AHO	7,500 a		-7,500
		<b>Total</b>	<b>2,140,500</b>
<b>AHO Units (5)</b>			
Capital Receipt dwellings			1,001,250
		<b>Total</b>	<b>1,001,250</b>
<b>Construction Costs</b>			
Construct Dwellings 75 no			-8,161,623
Policy - water			-675
Policy - energy			-375,000
Policy - access 20% dw			-14,100
Site and Infrastructure Costs	15.00 %		-1,282,710
Contingency	3.00 %		-256,542
Professional Fee	10.00 %		-855,140
		<b>Total</b>	<b>-10,945,789</b>
<b>Planning Policy Payments</b>			
Visitor Policy	75.00 units at	200.00 a	-15,000
CIL - payment 1 25%			-126,087
CIL - payment 2 75%			-378,261
PC - off site green infra land purchase			-79,881
PC - off site green infra equip & main			-90,834
PC - open space land purchase			-43,535
PC - open space equipping & maintenance			-96,571
		<b>Total</b>	<b>-830,169</b>
<b>Other Outgoings</b>			
Marketing Showrooms	1.00 units at	25,000.00 a	-25,000
		<b>Total</b>	<b>-25,000</b>
<b>Land Value</b>			
Land Payment	7.50 acres at	175,000.00 a	-1,312,500
SDLT			-55,125
Fees @ 1.25% LP			-16,406
		<b>Total</b>	<b>-1,384,031</b>
<b>Debt Interest - Overall</b>			
Charged Quarterly	100.00 % of Cost	-13,431,364	(38.01% Used)
Compounded Quarterly	6.50 %pa	Interest	-333,059
Profit/Cost	22.05%	Revenue	16,799,250
Profit/Revenue	18.07%	Outgoings	-13,764,423
IRR Excl.Intr	52.87%pa	Profit	3,034,827

28% AH

75:25 tenure split

ART @ 60% MV

AHO @ 75% MV

Typology 5 - Urban 100 dwellings (Version 11) - (Appraisal)

Market Units (67)			
Capital Receipt dwellings			14,140,000
Direct Sale Fees	1.50 %		-212,100
Direct Sale Legal Fees	0.25 %		-35,350
	Total		13,892,550
ART Units (25)			
RSL Payment 1 - 25% Capital Receipt			757,500
RSL Payment 2 - 25% Capital Receipt			757,500
RSL Payment 3 - 25% Capital Receipt			757,500
RSL Payment 4 - 25% Capital Receipt			757,500
Direct Sale Legal Fees ART & AHO	5,000 a		-5,000
	Total		3,025,000
AHO Units (8)			
Capital Receipt dwellings			1,207,500
	Total		1,207,500
Construction Costs			
Brownfeild			-50,000
Construct Dwellings 100 no			-9,473,600
Policy - water			-900
Policy - energy			-500,000
Policy - access 20% dw			-18,800
Site and Infrastructure Costs	10.00 %		-1,004,330
Contingency	3.00 %		-301,299
Professional Fee	10.00 %		-1,004,330
	Total		-12,353,259
Planning Policy Payments			
Visitor Policy	100.00 units at	200.00 a	-20,000
CIL - payment 1 25%			-114,189
CIL - payment 2 75%			-342,567
PC - green infra land purchase			-89,866
PC - green infra equip & main			-102,200
PC - open space land purchase			-48,977
PC - open space equip & maintenance			-108,700
	Total		-826,499
Land Value			
Land Payment			-520,000
SDLT			-15,500
Fees at 1.25% LP			-6,500
	Total		-542,000
Debt Interest - Overall	100.00 % of Cost	-13,974,208	(74.57% Used)
Charged Quarterly			
Compounded Quarterly	6.50 %pa	Interest	-914,535
Profit/Cost	23.43%	Revenue	18,377,500
Profit/Revenue	18.98%	Outgoings	-14,888,743
IRR Excl.Intr	26.98%pa	Profit	3,488,757

33% AH

75:25 tenure split

ART @ 60% MV

AHO @ 75% MV

Typology 6 - Urban 100 dwellings (Version 11) - (Appraisal)

<b>Market Units (67)</b>			
Dwellings			18,070,000
Direct Sale Fees	1.50 %		-271,050
Direct Sale Legal Fees	0.25 %		-45,175
		<b>Total</b>	<b>17,753,775</b>
<b>ART Units (25)</b>			
Payment 1 - 25% Capital Receipt			990,000
Payment 2 - 25% Capital Receipt			990,000
Payment 3 - 25% Capital Receipt			990,000
Payment 4 - 25% Capital Receipt			990,000
Direct Sale Legal ART & AHO Fees	5,000 a		-5,000
		<b>Total</b>	<b>3,955,000</b>
<b>AHO Units (8)</b>			
Dwelling			1,560,000
		<b>Total</b>	<b>1,560,000</b>
<b>Construction Costs</b>			
Brownfeild			-200,000
Construct Dwellings 100 no			-10,576,170
Policy - water			-900
Policy - energy			-500,000
Policy - access 20% dw			-18,800
Site and Infrastructure Costs	10.00 %		-1,129,587
Contingency	3.00 %		-338,876
Professional Fee	10.00 %		-1,129,587
		<b>Total</b>	<b>-13,893,920</b>
<b>Planning Policy Payments</b>			
Visitor Policy	100.00 units at	200.00 a	-20,000
CIL - payment 1 25%			-150,282
CIL - payment 2 75%			-450,847
PC - green infra land purchase			-103,596
PC - green infra equip & main			-117,804
PC - open space land purchase (on-site)			-1
PC - open space maintenance only			-57,526
PC - open space allotments main only			-2,512
		<b>Total</b>	<b>-902,568</b>
<b>Land Value</b>			
Land Payment			-1,300,000
SDLT			-54,500
Fees @ 1.25% LP			-16,250
		<b>Total</b>	<b>-1,370,750</b>
<b>Debt Interest - Overall</b>			
	100.00 % of Cost	-16,488,463	(73.75% Used)
<b>Charged Quarterly</b>			
Compounded Quarterly	6.50 %pa	Interest	-1,047,964
Profit/Cost	34.52%	Revenue	23,590,000
Profit/Revenue	25.66%	Outgoings	-17,536,427
IRR Excl.Intr	35.44%pa	Profit	6,053,573

33% AH

75:25 tenure split

ART @ 60% MV

AHO @ 75% MV



Typology 7 - Urban Edge 100 dwellings (Version 11) - (Appraisal)

<b>Market Units (67)</b>			
Capital Receipt dwellings			20,490,000
Direct Sale Fees	1.50 %		-307,350
Direct Sale Legal Fees	0.25 %		-51,225
	<b>Total</b>		<b>20,131,425</b>
<b>ART Units (25)</b>			
RSL Payment 1 - 25% Capital Receipt			1,032,750
RSL Payment 2 - 25% Capital Receipt			1,032,750
RSL Payment 3 - 25% Capital Receipt			1,032,750
RSL Payment 4 - 25% Capital Receipt			1,032,750
Direct Sale Legal Fees ART & AHO	7,500 a		-7,500
	<b>Total</b>		<b>4,123,500</b>
<b>AHO Units (8)</b>			
Capital Receipt dwellings			1,582,500
	<b>Total</b>		<b>1,582,500</b>
<b>Construction Costs</b>			
Construct Dwellings 100 no			-11,606,655
Policy - water			-900
Policy - energy			-500,000
Policy - access 20% dw			-18,800
Site and Infrastructure Costs	15.00 %		-1,818,953
Contingency	3.00 %		-363,791
Professional Fee	10.00 %		-1,212,636
	<b>Total</b>		<b>-15,521,734</b>
<b>Planning Policy Payments</b>			
Visitor Policy	100.00 units at	200.00 a	-20,000
CIL - payment 1 25%			-173,493
CIL - payment 2 75%			-520,479
PC - green infra land purchase			-115,328
PC - green infra equip & main			-131,137
PC - open space land purchase (50% on)			-31,427
PC - open space equip & main (50%)			-68,309
PC - open space allotments main only			-2,782
	<b>Total</b>		<b>-1,062,955</b>
<b>Other Outgoings</b>			
Marketing Showrooms	2.00 units at	25,000.00 a	-50,000
		<b>Total</b>	<b>-50,000</b>
<b>Land Value</b>			
Land Payment	10.00 acres at	175,000.00 a	-1,750,000
SDLT			-77,000
Fees @ 1.25%			-21,875
	<b>Total</b>		<b>-1,848,875</b>
Debt Interest - Overall	100.00 % of Cost	-18,849,639	(34.96% Used)
Charged Quarterly			
Compounded Quarterly	6.50 %pa	Interest	-434,034
Profit/Cost	35.88%	Revenue	26,203,500
Profit/Revenue	26.41%	Outgoings	-19,283,674
IRR Excl.Intr	75.05%pa	Profit	6,919,826

33% AH

75:25 tenure split

ART @ 60% MV

AHO @ 75% MV

Typology 8 - Urban Edge 250 dwellings (Version 11) - (Appraisal)

<b>Market Units (167)</b>			
Capital Receipt dwellings			49,785,000
Direct Sale Fees	1.50 %		-746,775
Direct Sale Legal Fees	0.50 %		-248,925
		<b>Total</b>	<b>48,789,300</b>
<b>ART Units (62)</b>			
RSL Payment 1 - 25% Capital Receipt			2,604,000
RSL Payment 2 - 25% Capital Receipt			2,604,000
RSL Payment 3 - 25% Capital Receipt			2,604,000
RSL Payment 4 - 25% Capital Receipt			2,604,000
Direct Sale Legal Fees ART & AHO	7,500 a		-7,500
		<b>Total</b>	<b>10,408,500</b>
<b>AHO Units (21)</b>			
Capital Receipt dwellings			4,312,500
		<b>Total</b>	<b>4,312,500</b>
<b>Construction Costs</b>			
Construct Dwellings 250 no			-28,980,171
Policy - water			-2,250
Policy - energy			-1,250,000
Policy - access 20% dw			-47,000
Site and Infrastructure Costs	20.00 %		-6,055,884
Contingency	3.00 %		-908,383
Professional Fee	10.00 %		-3,027,942
		<b>Total</b>	<b>-40,271,630</b>
<b>Planning Policy Payments</b>			
Visitor Policy	250.00 units at	200.00 a	-50,000
CIL - payment 1 20%			-335,849
CIL - payment 2 30%			-503,773
CIL - payment 3 50%			-839,622
PC - green infra land purchase			-284,077
PC - green infra equip & main			-322,995
PC - open space land purchase (50% on)			-77,411
PC - open space land purchase (50% on)			-168,217
PC - open space allotments main only			-6,872
		<b>Total</b>	<b>-2,588,816</b>
<b>Other Outgoings</b>			
Marketing Showrooms	2.00 units at	25,000.00 a	-50,000
		<b>Total</b>	<b>-50,000</b>
<b>Land Value</b>			
Land Payment			-3,750,000
SDLT			-177,000
Fees @ 1.25%			-46,975
		<b>Total</b>	<b>-3,973,975</b>
Debt Interest - Overall	100.00 % of Cost	-47,887,621	(26.28% Used)
Charged Quarterly			
Compounded Quarterly	6.50 %pa	Interest	-794,927
Profit/Cost	32.52%	Revenue	64,513,500
Profit/Revenue	24.54%	Outgoings	-48,682,548
IRR Excl.Intr	76.40%pa	Profit	15,830,952

33% AH

75:25 tenure split

ART 60% MV

ART 75% of MV

<b>Market Units (402)</b>			
Dwellings			117,130,000
Direct Sale Fees		1.50 %	-1,756,950
Direct Sale Legal Fees		0.25 %	-292,825
		<b>Total</b>	<b>115,080,225</b>
<b>ART Units (149)</b>			
RSL Payment 1 - 25% Capital Receipt			6,185,250
RSL Payment 2 - 25% Capital Receipt			6,185,250
RSL Payment 3 - 25% Capital Receipt			6,185,250
RSL Payment 4 - 25% Capital Receipt			6,185,250
Direct Sale Legal ART & AHO Fees		12,500 a	-12,500
		<b>Total</b>	<b>24,728,500</b>
<b>AHO Units (49)</b>			
Capital Receipt dwellings			9,723,750
		<b>Total</b>	<b>9,723,750</b>
<b>Construction Costs</b>			
Construct Dwellings 600 no			-71,295,723
Policy - water			-5,400
Policy - energy			-3,000,000
Policy - access 20% dw			-112,800
Site and Infrastructure Costs		20.00 %	-14,882,785
Contingency		3.00 %	-2,232,418
Professional Fee		10.00 %	-7,441,392
		<b>Total</b>	<b>-98,970,518</b>
<b>Planning Policy Payments</b>			
Visitor Policy	600.00 units at	200.00 a	-120,000
CIL - payment 1 15%			-623,041
CIL - payment 2 15%			-623,041
CIL - payment 3 20%			-830,722
CIL - payment 4 50%			-2,076,804
PC - green infra land purchase (all o)			-1
PC - green infra maintenance only			-295,314
PC - open space land purchase (all on)			-1
PC - open space maintenance only			-388,284
PC - open space allotments main only			-16,908
		<b>Total</b>	<b>-4,974,116</b>
<b>Other Outgoings</b>			
Marketing Showrooms	3.00 units at	25,000.00 a	-75,000
		<b>Total</b>	<b>-75,000</b>
<b>Land Value</b>			
Land Payment	60.00 acres at	100,000.00 a	-6,000,000
SDLT - estimate			-289,500
Fees @ 1.25%			-75,000
		<b>Total</b>	<b>-6,364,500</b>
<b>Debt Interest - Overall</b>			
	100.00 % of Cost	-112,446,409	(19.72% Used)
<b>Charged Quarterly</b>			
Compounded Quarterly	6.50 %pa	Interest	-1,462,609
Profit/Cost	33.08%	Revenue	151,594,750
Profit/Revenue	24.86%	Outgoings	-113,909,018
IRR Excl.Intr	74.59%pa	Profit	37,685,732

33% AH

75:25 tenure split

ART @ 60% MV

AHO @ 75% MV

# Appendix B

Nationally Described Space  
Standards (NDSS)  
Study – August 2019  
prepared by GNDP

## Greater Norwich Local Plan

### Nationally Described Space Standards (NDSS) Study - August 2019

The **Written Ministerial Statement (25 March 2015)**<sup>1</sup> introduced a new approach for the setting of technical standards for new housing, including setting out a new national space standard for new dwellings that can be required by local planning authorities.

Local planning authorities wishing to require an internal space standard should include a policy in their Local Plan referring to the national space standard. Justification for requiring internal space standards should be provided, taking account of the following:

- Need – evidence should be provided on the size and type of dwellings currently being built in the area, to ensure the impacts of adopting space standards can be properly assessed.
- Viability – the impact of adopting the space standard should be considered as part of a plan’s viability assessment with account taken of potentially larger dwellings on land supply. Local planning authorities will also need to consider impacts on affordability where a space standard is to be adopted.
- Timing – there may need to be a reasonable transitional period following adoption of a new policy on space standards to enable developers to factor the cost of space standards into future land acquisitions.

The NDSS sets out minimum requirements to deal with internal space within new dwellings and is suitable for application across all tenures. It sets out requirements for the Gross Internal (floor) Area of new dwellings at a defined level of occupancy as well as floor areas and dimensions for key parts of the home, notably bedrooms, storage and floor to ceiling height.

The technical requirements are as follows;

The standard requires that:

- a. The dwelling provides at least the gross internal floor area and built-in storage area set out in the table below
- b. A dwelling with two or more bedspaces has at least one double (or twin) bedroom
- c. In order to provide one bedspace, a single bedroom has a floor area of at least 7.5m<sup>2</sup> and is at least 2.15m wide
- d. In order to provide two bedspaces, a double (or twin bedroom) has a floor area of at least 11.5m<sup>2</sup>
- e. One double (or twin bedroom) is at least 2.75m wide and every other double (or twin) bedroom is at least 2.55m wide
- f. Any area with a headroom of less than 1.5m is not counted within the Gross Internal Area unless used solely for storage (if the area under the stairs is to be used for storage, assume a general floor area of 1m<sup>2</sup> within the Gross Internal Area)
- g. Any other area that is used solely for storage and has a headroom of 900-1500mm (such as under eaves) is counted at 50% of its floor area, and any area lower than 900mm is not counted at all
- h. A built-in wardrobe counts towards the Gross Internal Area and bedroom floor area requirements but should not reduce the effective width of the room below the minimum widths set out above. The built-in area in excess of 0.72m<sup>2</sup> in a double bedroom and 0.36m<sup>2</sup> in a single bedroom counts towards the built-in storage requirement
- i. The minimum floor to ceiling height is 2.3m for at least 75% of the Gross Internal Area

Number of bedrooms(b)	Number of bedspaces(persons)	1 storey dwellings	2 storey dwellings	3 storey dwellings	Built-in storage
1b	1p	39 (37) *			1.0
	2p	50	58		1.5
2b	3p	61	70		2.0
	4p	70	79		
3b	4p	74	84	90	2.5
	5p	86	93	99	
	6p	95	102	108	
4b	5p	90	97	103	3.0
	6p	99	106	112	
	7p	108	115	121	
	8p	117	124	130	
5b	6p	103	110	116	3.5
	7p	112	119	125	
	8p	121	128	134	
6b	7p	116	123	129	4.0
	8p	125	132	138	

### **Why is internal space in a home important?**

The amount of space in a home has significant impacts on how the occupants of that house live.

At its most basic it relates to preparation and consumption of food, dealing with household waste, health, hygiene and privacy issues. But it is also about the capabilities of the home to be used for socialising, relaxing or working from home and how the storage of possessions and furniture layouts contribute to how that living space looks and feels to inhabit. The amount of space in a home can also impact on the adaptability of the space for future changes in the occupants' lifestyles.

The space standards are intended to ensure new dwellings provide reasonable levels of internal space for a given number of occupants to allow day-to-day activities without impacting on the social, physical and mental wellbeing of the occupants.

### **Evidence**

To determine whether the proposed national space standards were already being met on new developments within the Plan area, the gross internal areas, bedroom sizes and built in storage across a range of developments have been measured in the three districts.

### **Methodology**

A cross section of data was reviewed across the three authorities to provide a varied sample size of homes built over a three year period between 2016 – 2019. This approach allowed for a cross section of development that included affordable housing. Sites were also chosen to reflect a wide geographical area across the three districts.

For each development, each different dwelling size and type has been measured to ensure that the different requirements of the national space standards could be considered. To allow for this variation only sites with five or more plots were reviewed.

All developments assessed have detailed planning permission, and therefore have approved floorplans for each dwelling.

## **Results**

The sample size across all three districts was 245 units.

- Of those 75% met or exceeded the standard for Gross Internal Area
- Of those 49% met or exceeded the standard for Internal Storage
- Of those 95% met or exceeded the width of 2.75m of the principle double
- Of the 245 units which had single rooms (108), 88% met or exceeded the width of 2.15m
- Of the 245 units which had double rooms in addition to the principle double (177), 95% met or exceeded the width of 2.55m.

## **Conclusion**

The information gathered from the study of 245 homes of different types and sizes across Greater Norwich built between 2016 and 2019 gives confidence that the inclusion of the NDSS through the Greater Norwich Local Plan is justified.

There is no reason to doubt that 100% of schemes could meet the NDSS in Greater Norwich. The change would be unlikely to push down developer profit to an unreasonable level. It is possible too that the costs of building to the NDSS could be recouped in either higher sales values or, like other planning requirements, reflected in the price paid for land.

Specifically in relation to the requirements relating to need, viability and timing established by Government:

- **Need** – the local evidence shows that 75% of homes have achieved the NDSS Gross Internal Area requirements, thus showing a need for such development. Other aspects of the standards have been achieved in the great majority of new homes, with only internal storage space requiring further consideration.
- **Viability** – The risk of house-building rates declining as a consequence of the NDSS compromising financial viability appears low. This conclusion is given added reassurance by the findings of the viability study that accompanies the local plan. For all development typologies modelled in the viability study, costs associated to the NDSS were included, and were found to be minor factors in a scheme's overall financial viability.

The research shows that with relatively modest floor space or storage space increases the NDSS could be attained without significant additional building cost.

For regional and national house-builders this is likely to be achievable without an extensive redesign of standard property types. Most medium to large house-builders will either

operate already in a local authority area where the NDSS is applied; or, will have premium standard property types that are sufficiently spacious already. For local, smaller and more specialist house-builders, property designs are often bespoke to individual projects, and so being bound to standard property types that do not comply with the NDSS is irrelevant.

- **Timing** – the publication of this study in 2019 ahead of scheduled adoption of the GNLP in 2021 allows a reasonable transitional period to enable developers to factor costs of space standards into land acquisitions.

Having assured ourselves that applying the NDSS does not compromise the viability of development, the next logical step is to consider whether applying the NDSS would bring any tangible benefit. For this question it appears reasonable to turn to national-level evidence. A 2010 report for CABE studied the concerns over declining space in new homes and the potential problems this creates for households. Concluding remarks about the importance of a well-designed home with adequate space were:

- The general health and wellbeing benefits that accrue from living in a well-designed home that offers both privacy and sociability, and that in all respects provides adequate space to function well;
- The contribution that adequate space makes to family life and the opportunity it affords children to engage in uninterrupted private study and therefore achieve against their potential;
- The forward link from educational attainment to productivity, and also the opportunity that space provides to work from home or to address the life-work balance;
- The flexibility of homes that have adequate space, meaning that they are easier to adapt to changing needs and lifestyles, and to future living styles and habits;
- The inclusivity provided by homes that have space to respond to occupiers changing physical requirements over their life-times, and the knock-on impact this has on creating more balanced and stable neighbourhoods;
- The societal benefits stemming from reduced overcrowding and the consequential reduction in aggressive and anti-social behaviour;
- Creating a potentially more stable housing market, driven by a more complete understanding of long-term need and utility rather than by short-term investment decisions.

Organisations like Shelter and RIBA have also raised concerns about the space in new build properties. Amongst their points is that some home-buyers dislike new build homes, the perception being that new properties are often cramped. This reflects what is an obvious point: more space and storage can only really be considered better, and allows people a more comfortable daily life. Clever design, and the efficient use of space, are to be encouraged but the whole answer is in building more spacious homes.



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[see local plan evidence base]

# Appendix C

Base Table: General Open  
Space and Play Areas

Base Table: Open Space SANGS

## OFF SITE GREEN INFRASTRUCTURE PAYMENTS INDEXED to JUNE 2019

Site:		Parish:
Planning ref:		Date:

Number of persons per dwelling			
bedrooms	occupancy rate	number of dwellings	total number of persons
1	1.5		0
2	2		0
3	2.5		0
4	3		0
5 or more	3.5		0
<b>Total</b>		<b>0</b>	<b>0</b>

Area (ha) based on the development size				
	area per 1000 pop	divide by 1000 pop	persons on development	area by type required (ha)
	4.00	1,000	0	-
<b>Total area required by type</b>				<b>-</b>

OFF - SITE Land purchase cost for this development based on area (ha)			
	Land Value	area required (ha)	Total land cost by space type
	£ 124,814	0.000	£ -
<b>total cost of land acquisition</b>			<b>£ -</b>

Cost of equipping and maintaining the land				
bedrooms	number of dwellings	cost of equipping	cost of maintaining	Total
1	0	535.00	316.00	-
2	0	714.00	422.00	-
3	0	892.00	527.00	-
4	0	1,071.00	632.00	-
5	0	1,249.00	738.00	-
				-
				£ -

<b>TOTAL OFF SITE COMMUTED SUM</b>	<b>£ -</b>
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EDITABLE CELLS

Source: Broadland Council

**OFF SITE**

## Open Space Calculation sheet Indexed to June 2019

Site:	Parish:
Planning ref:	Date:

Number of persons per dwelling			
bedrooms	occupany rate	number of dwellings	total number of persons
1	1.5		0
2	2		0
3	2.5		0
4	3		0
5 or more	3.5		0
<b>Total</b>		<b>0</b>	<b>0</b>

Area (ha) of open space required based on the development size				
Open space type	area per 1000 pop	divide by 1000 pop	persons on development	area by type required (ha)
Childrens play space	0.34	1000	0	-
Formal recreation	1.68	1000	0	-
Allotments	0.16	1000	0	-
<b>Total area required by type</b>				<b>-</b>

Land purchase cost for this development based on area (ha)				
Type of space	Parish land Value	area required (ha)	Total land cost by space type	
Childrens play space	£ 124,814	0.000	£	-
Formal recreation	£ 124,814	0.000	£	-
Allotments	£ 124,814	0.000	£	-
<b>total cost of land acquisition</b>			<b>£</b>	<b>-</b>

**Cost of equipping and maintaining the open spaces by type**

Childrens play space				
bedrooms	number of dwellings	cost of equipping	cost of maintaining	Total
1	0	111.00	37.00	-
2	0	149.00	51.00	-
3	0	185.00	64.00	-
4	0	222.00	76.00	-
5	0	258.00	90.00	-
<b>Cost to equipping and maintaining childrens play space</b>				<b>- £ -</b>

Formal recreation (sport)				
bedrooms	number of dwellings	cost of equipping	cost of maintaining	Total
1	0	359.00	378.00	-
2	0	481.00	504.00	-
3	0	600.00	629.00	-
4	0	720.00	755.00	-
5	0	841.00	882.00	-
<b>Cost to equipping and maintaining formal recreation</b>				<b>- £ -</b>

Allotments				
bedrooms	number of dwellings	cost of equipping		Total
1	0	19.00		-
2	0	24.00		-
3	0	30.00		-
4	0	36.00		-
5	0	42.00		-
<b>Cost of equipping allotments</b>				<b>- £ -</b>

<b>TOTAL OFF SITE COMMUTED SUM</b>	<b>£ -</b>
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**EDITABLE CELLS**