Ashfield New Settlements Study

Final Report

Ashfield District Council

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Quality information

Prepared by	Checked by	Verified by	Approved by
Anthony Whitaker Principal Planner	David Carlisle Associate Director	Ben Castell Director	Ben Castell Director

Prepared for:

Ashfield District Council

Prepared by:

AECOM Limited
Aldgate Tower
2 Leman Street
London E1 8FA
United Kingdom
aecom.com

Prepared in association with:

HDH Planning & Development Ltd; and

Hyas Associates.

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Abbreviations

Ashfield District Council	ADC
Building Cost Information Service	BCIS
Benchmark Land Value	BLV
Community Infrastructure Levy	CIL
Dwellings Per Annum	DPA
Dwellings Per Hectare	DPH
Existing Use Value	EUV
Greater Nottingham Planning Partnership	GNPP
Gross Development Value	GDV
Hectares	HA
Local Wildlife Site	LWS
Mansfield Ashfield Regeneration Route	MARR
Minerals Safeguarding Area	MSA
National Planning Policy Framework	NPPF
Nottinghamshire County Council	NCC
Planning Practice Guidance	PPG
Sites of Special Scientific Interest	SSSI
Source Protection Zone	SPZ
Sustainability Appraisal	SA

Glossary

Alternative use value (AUV) Where an alternative use can be readily identified as generating a higher value for a site, the value for that alternative use would take the existing use value (determined by the market) and apply an assumption that has regard to current development plan policies and all other material planning considerations and disregards that which is contrary to the development plan.

Building Cost Information Service A subscriber service set up in 1962 under the aegis of RICS to facilitate the exchange of detailed building construction costs. The service is available from an independent body to those of any discipline who are willing and able to contribute and receive data on a reciprocal basis.

Building costs indices A series of indices published by BCIS relating to the cost of building work. They are based on cost models of 'average building', which measure the changes in costs of labour, materials and plant which collectively cover the basic cost to a contractor.

Cash flow The movement of money by way of income, expenditure and capital receipts and payments during the course of the development. The impact of cash flow assumptions on viability assessments is an important consideration. While most viability appraisals include an interest rate on capital employed, such costs are frequently applied solely to building costs pending sale. Cash flow considerations should also take into account the costs of capital employed in relation to infrastructure costs, Section 106 and CIL requirements and land purchase costs, and should incorporate realistic assumptions on build and sales rates based upon local market conditions.

Contingency – Contingencies are allowances that may sometimes be put within a development appraisal to cater for unexpected costs where it is considered likely that the site poses risks which cannot easily be quantified. For example, poor ground conditions may affect the foundations, the discovery of archaeological remains and/or contamination may only be confirmed once digging commences. Normally a contingency will be expressed as an estimated percentage of costs. They should only be used to reflect those aspects of a scheme where costs cannot be accurately estimated in advance of work starting on site. They are dependent upon the nature of the development, the procurement method and the perceived accuracy of the information obtained. A contingency should not to be used to cover the possibility of contract price increases which can be quantified at the time that the appraisal is carried out. Similarly, they should not be used to cover errors made in the construction phase – the latter is accounted for in the developer's margin that reflects risk.

Current use value Market value for the continuing existing use of the site or property assuming all hope value is excluded, including value arising from any planning permission or alternative use. This also differs from the existing use value. It is hypothetical in a market context as property generally does not transact on a CUV basis.

Development appraisal A financial appraisal of a development to calculate either:

- the residual site value (deducting all development costs, including an allowance for the developer's profit/return from the scheme's total capital value); or
- the residual development profit/return (deducting all development costs, including the site value/cost from the scheme's total capital value).

Developer's return The developer's reasonable expectation of profit reflecting development risk, having regard to the margin requirements of any investors (where relevant). It will be determined by each developer in accordance with their own business model typically in relation to either profit on value (Gross Development Value) or profit on cost (total development costs). Whilst in practice it is assessed in a variety of ways, for development viability assessment calculations, it is normally taken in relation to a percentage of GDV.

Existing use value The estimated amount for which an asset or liability should exchange on the valuation date between a willing buyer and a willing seller in an arm's-length transaction after properly marketing and where the parties had each acted knowledgeably, prudently and without compulsion, assuming that the buyer is granted vacant possession of all parts of the property required by the business and disregarding potential alternative uses and any other characteristics of the property that would cause market value to differ from that needed to replace the remaining service potential at least cost. It is an accounting definition of value for business use and as such, hypothetical in a market context, as property generally does not transact on an EUV basis.

Existing use value 'plus' a premium (EUV+) The benchmark land value for the purposes of assessing the viability of development for planning purposes. The value above the EUV at which a typical willing landowner is likely to release land for development. EUV+ should be informed by comparable evidence of transactions where possible. Where transacted prices are significantly above the market norm for transactions that fully reflect planning policy conditions and constraints, they should be regarded as outliers and not used as part of EUV+. This is likely to be highest in high value urban settings but low in rural low value areas. EUV+ is not price paid and must disregard Hope Value.

Gross development value (GDV) The aggregate market value of the proposed development, assessed on the special assumption that the development is complete as at the date of valuation in the market conditions prevailing at that date. The total of likely sales proceeds from a completed development scheme, gross of any costs of sale but taken at today's values and not inflated by the prospect of changes in market prices.

Gross development cost (GDC) The cost of undertaking a development, which normally includes the following:

- land acquisition costs
- site-specific related costs
- build costs
- fees and expenses
- interest or financing costs; and
- holding costs during the development period.

Gross external area (GEA) The aggregate superficial area of a building, taking each floor into account. As per the RICS Code of Measuring Practice this includes: external walls and projections, columns, piers, chimney breasts, stairwells and lift wells, tank and plant rooms, fuel stores whether or not above main roof level (except for Scotland, where for rating purposes these are excluded), and open-side covered areas and enclosed car parking areas, but excludes: open balconies; open fire escapes, open covered ways or minor canopies; open vehicle parking areas, terraces, etc.; domestic outside WCs and coalhouses. In calculating GEA, party walls are measured to their centre line, while areas with a headroom of less than 1.5m are excluded and quoted separately.

Gross internal area (GIA) Measurement of a building on the same basis as gross external area, but excluding external wall thicknesses.

Landowner's Return - in all cases the landowner's return should reflect extant and emerging policy requirements and planning obligations and, where applicable, any Community Infrastructure Levy charge and any other planning conditions for extant planning consents. Practitioners should normally utilise Existing Use Value Plus (EUV+) as an approach for determining the landowners' return in the planning context.

Market value (MV) The estimated amount for which an asset should exchange on the date of valuation between a willing buyer and a willing seller in an arm's length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without compulsion.

Net/gross ratio Refers to the percentage of usable space or land. A typical net/gross ratio on an office is 85%, whereas on a large greenfield site it is around 60% as not all land can be developed (i.e. some is used as open space, for distributor roads, community uses, infrastructure etc.)

Net internal area (NIA) The usable space within a building measured to the internal finish of structural, external or party walls, but excluding toilets, lift and plant rooms, stairs and lift wells, common entrance halls, lobbies and corridors, internal structural walls and columns and car parking areas.

Planning obligation Provided for under section 106 of the Town and Country Planning Act 1990, usually in connection with the grant of planning permission for a private development project. A benefit to the community, either generally or in a particular locality, to offset the impact of development, e.g. the provision of open space, a transport improvement or affordable housing. The term is usually applied when a developer agrees to incur some expenditure, surrender some right or grant some concession which could not be embodied in a valid planning condition.

Residual Site Value or residual land value The amount remaining once the GDC of a scheme is deducted from its GDV and an appropriate return has been deducted.

Residual valuation A valuation/appraisal of land using a development appraisal.

Viability assessments/financial viability A report including a financial appraisal to establish the profit or loss arising from a proposed development. It will usually provide an analysis of both the figures inputted and output results, together with other matters of relevance. An assessment will normally provide a judgment as to the profitability (or loss) of a development.

Yield As applied to different commercial elements of a scheme, i.e. office, retail, etc. Yield is usually calculated as a year's rental income as a percentage of the value of the property. The "yield" is the rent as a proportion of the purchase price. In determining development value, there is an inverse relationship i.e. as the yield goes up, the value goes down. To calculate development value multiply the rent by 1/yield e.g. £100,000 x 1/10% (i.e. 0.1) = £1m gross value.

Sources: MHCLG, AECOM, RICS, LHDG (Viability testing Local Plans)

Executive Summary

Background

This report has been prepared by AECOM, with inputs from HDH Planning & Development Ltd and Hyas Associates, to assess the suitability, availability and achievability of two potential new settlement options for the emerging Ashfield District Council (ADC) Local Plan. The sites, which have been identified by ADC, are: Site 1 Kirkby Lane/Pinxton Lane, Kirkby-in-Ashfield (Site 1); and Site 2 Cauldwell Road/Derby Road, Sutton in Ashfield (Site 2).

The findings are based on site visits and desk-based review by technical specialists in a number of disciplines including viability, drainage, economics, ground conditions, heritage, landscape, town planning, light pollution, transport, social infrastructure and utilities. They have also been informed by inputs from a range of stakeholders, including statutory consultees and service providers.

The report will feed into the wider plan making process, including the Sustainability Appraisal that will assess these two sites alongside other options for contributing towards local housing need.

Conclusions

Both sites have the potential to deliver new homes, although each has significant constraints that will require further detailed investigations and mitigation (if developed). As both sites are detached from the existing urban areas of Kirkby-in-Ashfield and Sutton in Ashfield, the strategy for public transport corridors and encouraging sustainable travel modes will be critical to their success. Whilst they both benefit from relatively close proximity to the railway stations - Kirkby-in-Ashfield and Sutton Parkway - satisfactorily integrating them will present a considerable challenge.

In line with the National Planning Policy Framework, for an allocation at either site to be found sound, the Inspector will need to be convinced that either or both of the sites would enable sustainable development and would be deliverable. The questions that remain on both counts will need to be further explored as the new Local Plan evolves. However, it is clear that neither site would be capable of delivering significant housing numbers in the early phases of the plan period and so both should be principally considered for their potential to deliver homes in the latter part of the plan period, unless, for instance, external funding is secured to expedite their delivery.

Site 1: Kirkby Lane/Pinxton Lane, Kirkby-in-Ashfield

Site characteristics result in our estimate of housing capacity to be around 1,600 homes. Opportunities and constraints on the site include:

- Several employment areas and Kirkby-in-Ashfield town centre in close proximity to the site. These locations would be within a short commuting/cycling distance with improved/additional cycle lanes and adequate public transport serving the site.
- Relative proximity to Kirkby-in-Ashfield rail station and close proximity to the M1 and A38.
- Scope for a new settlement/garden village[1] to form an umbilical/co-dependant relationship with Kirkby-in-Ashfield. As such there would be potential to share services and social infrastructure for existing and new residents.
- Opportunities to create new Local Green Infrastructure Corridor links identified in the ADC Green Infrastructure and Biodiversity - Technical Paper (September, 2013).

[1] Garden villages (circa 1,000 – 2,000 dwellings) require their own social infrastructure and access to sustainable modes of transport. They will typically be in close proximity to a larger town or City and should be integrated into the established network through direct transport links, however there is often a need to reinforce those connections with new transport investment depending on the capacity of and distance to existing transport infrastructure. It is assumed there be some "2-way traffic" between existing populations of other settlements to the new services and facilities provided in the new settlement.

- The presence of adjacent Ancient Woodland and designations of Nature Conservation Areas and Mature Landscape Areas in the Adopted Local Plan.
- The presence of an intermediate pressure ground gas main that reduces development capacity and overhead powerlines, that would need to be diverted or avoided.
- The likely presence of historic unrecorded coal mine workings at shallow depth (Development High Risk Area), as is typical in similar locations in Nottinghamshire.
- General suitability on landscape grounds, although a landscape buffer is recommended in the far south-eastern corner and it would be desirable to retain the green corridor associated with The Dumbles within any new development.
- The HS2 safeguarding area and local heritage constraints reduce the potential developable area at the south west of the site.
- Multiple land ownerships, with the availability of northern parcels currently unknown (requiring further investigation).
- The comparatively detached location, with few existing local facilities and close to strategic roads that are already congested – financial contributions to off-site highways improvements to the A38 will be expected.
- Serious viability challenges, principally due to the level of on-site and off-site reinforcements that would be likely to be required. There may be opportunities to secure external funding streams to part fund highways improvements to help unlock/de-risk the site and improve viability.

Site 2: Cauldwell Road/Derby Road, Sutton in Ashfield

Site characteristics result in our estimate of housing capacity to be around 1,000 homes. Opportunities and constraints on the site include:

- Several employment areas and Kirkby-in-Ashfield/Sutton in Ashfield town centres in close proximity to the site. These locations would be within a short commuting/cycling distance with improved/additional cycle lanes and adequate public transport serving the site. Although not to existing bus routes and close to the congested A38.
- Relative proximity to Sutton Parkway rail station and close proximity to the A617 and A611.
- Scope for a new settlement/garden village to form an umbilical/co-dependant relationship with Kirkby-in-Ashfield and Sutton in Ashfield. As such there would be potential to share services and social infrastructure for existing and new residents.
- Opportunities to create new Local Green Infrastructure Corridor links identified in the ADC Green Infrastructure and Biodiversity - Technical Paper (September, 2013).
- Existing designations including Mature Landscape Areas and Nature Conservation Site.
- Historic England strongly recommending a development buffer around the Mound on Hamilton Hill Scheduled Monument.
- The need to mitigate potential new light pollution affecting the Sherwood Observatory.
- Potential suitability on landscape grounds, although with two recommended landscape buffers - a northern buffer to prevent perceptions of sprawl at the ridgeline on Coxmoor Road and of Mansfield south of the ring road, and an eastern buffer to contain sprawl into the rural land to the east and retain the heathy character of this area.
- Much of the potentially developable area being in single land ownership.
- Together, landscape and heritage constraints potentially significantly reducing the developable area.
- Serious viability challenges, with limited scope to overcome these viability challenges through the provision of additional homes. There may be some scope to increase the dwelling numbers once potential impacts on the Scheduled Ancient Monument have been explored in further detail (alongside the related landscape constraints).

1. Introduction

AECOM (alongside HDH Planning & Development and Hyas Associates) were commissioned in May 2020 to prepare a report aimed at assessing the suitability, availability and achievability of two potential new settlement options for the emerging Ashfield District Council (ADC) Local Plan. The two potential new settlement options were identified by ADC as being reasonable site options for testing during the plan-making process.

1.1 Purpose of the study

The emerging Local Plan[2] will cover the plan period 2020 to 2037 with a local housing need (calculated in 2020) of approximately 500 dwellings per annum (reflecting the standard methodology[3]). It is estimated by the Council that, taking into account existing committed development[4], the residual housing need to be met by new allocations during the Local Plan period will be a minimum of 5,211 dwellings.

The National Planning Policy Framework (NPPF) states at paragraph 72 that "*the supply of large numbers of new homes can often be best achieved through planning for larger scale development, such as new settlements or significant extensions to existing villages and towns, provided they are well located and designed, and supported by the necessary infrastructure and facilities*".

Historically, Ashfield has sought to deliver new development as sustainable urban extensions (SUEs) on the edge of existing settlements to accommodate the Council's housing need. The Council has undertaken an assessment of potential locations for new settlements and identified two potential options. These are Kirkby Lane/Pinxton Lane, Kirkby-in-Ashfield (Site 1) and Cauldwell Road/Derby Road, Sutton in Ashfield (Site 2), as shown on

Figure 1 (overleaf).

The purpose of this study is to understand if the two potential new settlement options identified by the Council are realistic prospects for the new Local Plan, and to understand the contribution that they could make towards meeting the residual housing requirement. The findings of this study will then inform other evidence base studies and option assessments (such as Sustainability Appraisal and the Strategic Housing and Economic Land Availability Assessment) to assist with the development of the Local Plan.

The report provides a detailed assessment of the two sites reviewing their suitability and sustainability as potential sites for new settlements, and recommendations regarding whether one or both sites could be considered further as reasonable options for the Local Plan.

1.2 Report structure

This report is structured as follows:

- Section 2: presents a review of the national and local context in respect of meeting housing needs through new settlements.
- Section 3: assessment of Site 1 (Kirkby Lane/Pinxton Lane, Kirkby-in-Ashfield) including viability results.
- Section 4: assessment of Site 2 (Cauldwell Road/Derby Road, Sutton in Ashfield) including viability results.
- Section 5: delivery and implementation are assessed in this section. Including: preliminary concept plans (reflecting urban design drivers, landscape appraisal and Green Infrastructure linkages); consideration of delivery rates; and deliverability considerations.
- Section 6: next steps for Ashfield District Council in incorporating the findings of this report into the Local Plan-making process.

[2] Available at: https://www.ashfield.gov.uk/residents/planning-building-control-and-land-charges/forward-planning/the-emerging-local-plan/
[3] Available at: https://www.gov.uk/guidance/housing-and-economic-development-needs-assessments
[4] Including sites with planning permission and the expected contribution from "windfall" development.

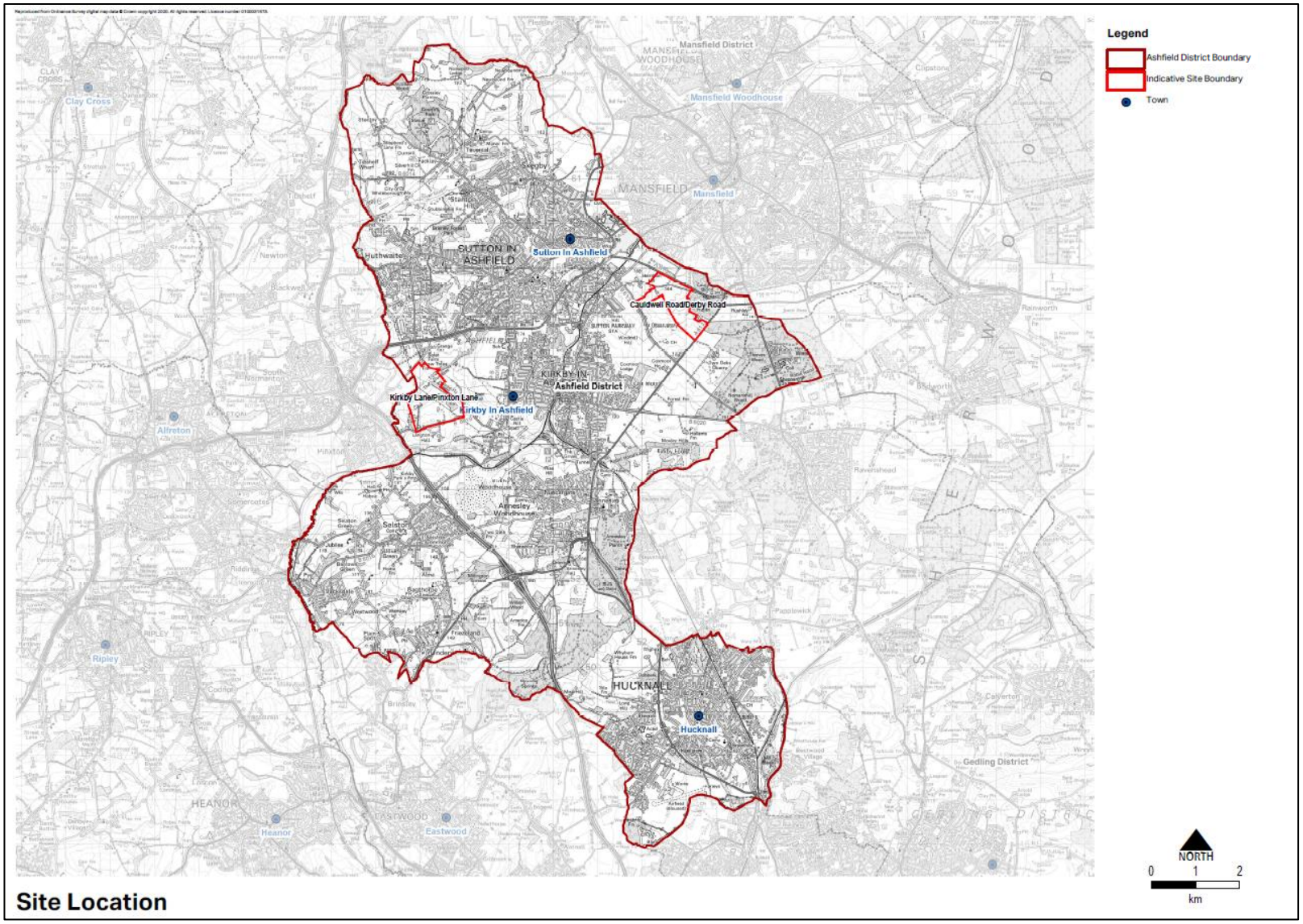


Figure 1: Potential new settlements in Ashfield District

1.3 Approach

The project commenced with a review of the national policy framework and available guidance for new settlements before undertaking a detailed review of the Local Plan evidence base as well as adopted and emerging policy documents that are already available.

A desktop review of the existing site information was then undertaken to understand the baseline information the Council already holds about the sites, and what further information was required to inform the assessment. Information reviewed included Call for Sites forms submitted by the landowners (including land ownership boundaries, tenancies, restrictive covenants), emerging SHELAA conclusions and other relevant information.

Following this desktop assessment, a thematic constraints and opportunities assessment of both sites was undertaken including the following disciplines:

- Strategic planning
- Masterplanning and urban design
- Landscape
- Economics
- Access and movement
- Ground conditions / Geotechnical
- Services / utilities location and capacity
- Drainage
- Historic environment
- Social infrastructure
- Light impact assessment (only scoped in for Site 2)

For each of the technical disciplines, an opportunities and constraints analysis was undertaken; liaison with key stakeholders[5] and identification of infrastructure requirements and mitigation measures before a project team "synthesis" workshop to assess the development capacity of the site. The outcome of this work is an understanding of the suitability of the site for a new settlement and the potential economic, social and environmental benefits/impacts associated with the development of each site. The potential role of the new settlement is also discussed, including whether the new settlement should aim to deliver a mix of uses to increase self-containment or if the primary role is a dormitory settlement with strong links to the neighbouring urban areas.

An assessment of whether developing the sites would involve any known significant abnormal costs with the potential to affect the economic viability of the sites was undertaken. Abnormal costs are those which are above the standard costs attributed to the development of a standard site, and can include, for example, those associated with remediation for contaminated sites or flood mitigation works. The infrastructure requirements and assumptions have considered strategic infrastructure costs (above standard/baseline costs). The cost assumptions and scale of infrastructure investment likely to be involved draws upon benchmarking information drawn from comparable new settlement projects that AECOM are engaged on elsewhere and an analysis of the likely reinforcements and mitigation required for each site.

A viability assessment (see Appendix D) was then undertaken to test the deliverability of the sites as new settlements, including any abnormal costs associated with mitigation or infrastructure provision to support the development of the sites. A high-level commentary on likely lead-in times and build-out rates for the sites is presented to inform the council's option identification process and requirement to produce a housing trajectory in the new Local Plan.

The appraisals use the residual valuation approach – they assess the value of a site after taking into account the costs of development, the likely income from sales and/or rents and a developers' return. The Residual Value represents the maximum bid for the site where the payment is made in a single tranche on the acquisition of a

[5] A list of stakeholders approached is included at **Appendix A**

site. In order for the proposed development to be viable, it is necessary for this Residual Value to exceed the Existing Use Value (EUV) by a satisfactory margin, being the Benchmark Land Value (BLV) or EUV 'plus'.

Several sets of appraisals have been run based on the assumptions provided (see Appendix D), including the affordable housing requirement and developer contributions. Development appraisals are sensitive to changes in price, so appraisals have been run with various changes in the cost of construction and an increase and decrease in prices.

The results are set out and presented for each site (see chapters 3 and 4) in the tables, the results are colour coded using a traffic light system:

- **Green** Viable – where the Residual Value per hectare exceeds the BLV per hectare (being the EUV plus the appropriate uplift to provide a landowners' premium).
- **Amber** Marginal – where the Residual Value per hectare exceeds the EUV but not the BLV per hectare. These sites should not be considered as viable when measured against the test set out – however, depending on the nature of the site and the owner, they may come forward.
- **Red** Non-viable – where the Residual Value does not exceed the EUV.

It is important to note that a report of this type applies relatively simple assumptions that are broadly reflective of an area to make an assessment of viability. The fact that a site is shown as viable does not necessarily mean that it will come forward and vice versa. An important part of any final consideration of viability will be relating the results of this study to what is actually happening on the ground in terms of development.

Overall conclusions on the suitability, availability and achievability of the sites are set out to inform plan-making including Sustainability Appraisal. The final two sections of the report present a series of deliverability and implementation considerations, including the preparation of preliminary concept plans. This is supported by a more detailed Delivery Mechanisms Paper (Appendix E). The report concludes with a summary of main findings and recommended next steps.

2. Context

This section provides an overview of the national and local context with regard to planning for development at the strategic scale. It summarises the national policy position and best practice before moving on to consider relevant regional and local strategic considerations to inform this new settlement study.

2.1 National context

Since the introduction of the consolidated National Planning Policy Framework (NPPF) in 2012, there has been a renewed enthusiasm in Government, and the planning profession more widely, for planning at a strategic scale. Since March 2016, the MHCLG has supported locally-led garden villages, towns and cities with funding and technical support (delivered through Homes England). More recently, The Neighbourhood Planning Act (2017) and The New Towns Act 1981 (Local Authority Oversight) Regulations 2018 introduced the legislative and regulatory backing to allow locally led new towns to be designated and for development corporations to be set up to deliver them. Related to these efforts Government has agreed to a number of devolution deals and housing and growth deals that encourage strategic solutions alongside new planning and funding powers. The below section summarises other national policy and strategies pertinent to new settlement planning that this study addresses.

Housing White Paper

The Housing White Paper "Fixing our Broken Housing Market", issued in February 2017, sets out the government's plans to reform the housing market and boost the supply of new homes in England. The White Paper is supported by a series of technical reports. The White Paper reinforces the Government's commitment to deliver growth through new settlements, which are said to provide an opportunity for well-planned and designed communities and to capture land value uplift.

The White Paper also proposed a number of funding streams to enable infrastructure delivery, in line with housing provision. This included the Housing and Infrastructure Fund (HIF) which is a Government capital grant programme of up to £2.3 billion, which will help to deliver up to 100,000 new homes in England.

Planning for the Future

On the 6th August 2020, the Government published for consultation[6] a series of proposals and reforms for the planning system. The consultation sought views on how the planning system in England could be streamlined and modernised, in order to improve outcomes on design and sustainability, reform developer contributions and ensure more land is available for development where it is needed.

One proposal of relevance to this study was the concept of simplifying how land is categorised/allocated in Local Plans based on three classifications: Growth areas, Renewal areas and Protected areas. Growth areas would be "suitable for substantial development". Government proposed that the term substantial development be defined in policy to remove any debate about this descriptor. Locations categorised for Growth would benefit from a form of outline approval and would, in theory, benefit from faster routes to delivery. Government envisage this category to (our *emphasis*):

> *"include land suitable for comprehensive development, including new settlements and urban extension sites, and areas for redevelopment, such as former industrial sites or urban regeneration sites. It could also include proposals for sites such as those around universities where there may be opportunities to create a cluster of growth-focused businesses. Sites annotated in the Local Plan under this category would have outline approval for development. Areas of flood risk would be excluded from this category (as would other important constraints), unless any risk can be fully mitigated"*

Garden Communities

In undertaking this study, the project team has reviewed existing literature to identify common themes among extant planning principles. The new settlement principles act as the foundation for the new settlement feasibility study. This review reflects best practice identified by the Town and Country Planning Association (TCPA) on delivering a 21st Century Garden City and the Government's aims, as set out in the Garden Communities Prospectus (August 2018), announced at the launch of a new garden communities programme for England.

[6] Accessed at: https://www.gov.uk/government/consultations/planning-for-the-future

The Government's prospectus[7] invited bids for ambitious, locally supported, proposals for new garden communities. It sought to encourage proposals for high quality homes and green spaces. Proposals for new Garden Towns (more than 10,000 homes) were prioritised, however Garden Villages (1,500-10,000 homes) were also considered and supported. Where the garden community is proposing to take the form of a transformational development to an existing settlement it will need to meet the criteria set out in the prospectus (see **Table 1**). It is expected that those initiatives supported by Government will deliver significant housing and economic growth in their area. Further Government commitment to Garden Towns was demonstrated in 2019 with the announcement of 5 new Garden Towns and 19 Garden Villages that are to receive Government support[8].

Table 1: MHCLG Garden Communities Prospectus criteria

Criterion	Description
Scale	Proposals can be for a discrete new settlement or take the form of transformational development of an existing settlement, both in nature and in scale. All proposals must be of sufficient scale to be largely self-sustaining and genuinely mixed use.
Strategic fit	Garden communities should offer opportunities for significant long-term housing and economic growth in a local area. All proposals must demonstrate how the new garden community fits with the housing need for the housing market area, including expected future population growth. All proposals should demonstrate how the new garden community fits with wider strategies to support economic growth and increase productivity.
Locally-led	Strong local leadership is crucial to developing and delivering a long-term vision for these new communities. All proposals should have the backing of the local authorities in which they are situated, including the county council in two-tier areas.
Garden community qualities	New Garden Communities must meet the following key qualities: • Clear identity – a distinctive local identity as a new garden community, including at its heart an attractive and functioning centre and public realm. • Sustainable scale – built at a scale which supports the necessary infrastructure to allow the community to function self-sufficiently on a day to day basis, with the capacity for future growth to meet the evolving housing and economic needs of the local area. • Well-designed places – with vibrant mixed use communities that support a range of local employment types and premises, retail opportunities, recreational and community facilities. • Great homes – offer a wide range of high quality, distinctive homes. This includes affordable housing and a mix of tenures for all stages of life. • Strong local vision and engagement – designed and executed with the engagement and involvement of the existing local community, and future residents and businesses. This should include consideration of how the natural and historic environment of the local area is reflected and respected. • Transport – integrated, forward looking and accessible transport options that support economic prosperity and wellbeing for residents. This should include promotion of public transport, walking, and cycling so that settlements are easy to navigate, and facilitate simple and sustainable access to jobs, education, and services. • Healthy places – designed to provide the choices and chances for all to live a healthy life, through taking a whole systems approach to key local health & wellbeing priorities and strategies. • Green space – generous, accessible, and good quality green and blue infrastructure that promotes health, wellbeing, and quality of life, and considers opportunities to deliver environmental gains such as biodiversity net gain and enhancements to natural capital. • Legacy and stewardship arrangements – should be in place for the care of community assets, infrastructure and public realm, for the benefit of the whole community. • Future proofed – designed to be resilient places that allow for changing demographics, future growth, and the impacts of climate change including flood risk and water availability, with durable landscape and building design planned for generations to come. This should include anticipation of the opportunities presented by technological change such as driverless cars and renewable energy measures.
Deliverability and viability	To have confidence that proposals are deliverable, outline proposals should consider: • Delivery models and timescales – including the strength of existing commitments and partnerships, such as with master developers and landowners. • Infrastructure requirements – including access to road, rail, utility considerations (including high-speed broadband, flood, water supply, sewerage and waste), and plans for health, education, and other core social infrastructure. • Opportunities to capture land value – including through land acquisition and assembly, to help fund the long-term delivery and management of the garden community. • Access to finance and private sector investment – including through direct investment, developer contributions, patient long-term finance and other opportunities attractive to investors.

[7] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/805688/Garden_Communities_Prospectus.pdf

[8] For further information see https://www.gov.uk/government/publications/garden-communities

Source: MHCLG Garden Communities Prospectus (2018)

The Prospectus does not prescribe any particular delivery model, but states that a Development Corporation model[9] should be considered as it can offer long-term certainty to private investors, help resolve complex coordination challenges, help invest in infrastructure to unlock development and allow for compulsory purchase powers to help bring about now towns. This chimes with the findings of the Letwin Review[10], which recommended that Government should encourage the creation of new Development Corporations under existing legislation. The review also suggested that new primary legislation should be created to give local authorities statutory powers to create new delivery vehicles.

Town and Country Planning Association Garden City Principles

The TCPA has produced a series of 12 guidance documents for delivering new Garden Cities[11]. It has its own definition of what a Garden City is and its own "Garden City Principles", which are broadly similar to the MHCLG criteria to the "Garden communities qualities" listed in **Table 1**. According to the TCPA "*a Garden City is a holistically planned new settlement that enhances the natural environment and offers high-quality affordable housing and locally accessible work in beautiful, healthy and sociable communities. The Garden City principles are an indivisible and interlocking framework for delivery, and include:*

- *Land value capture for the benefit of the community.*
- *Strong vision, leadership and community engagement.*
- *Community ownership of land and long-term stewardship of assets.*
- *Mixed-tenure homes and housing types that are genuinely affordable.*
- *A wide range of local jobs in the Garden City within easy commuting distance of homes.*
- *Beautifully and imaginatively designed homes with gardens, combining the best of town and country to create healthy communities, and including opportunities to grow food.*
- *Development that enhances the natural environment, providing a comprehensive green infrastructure network and net biodiversity gains, and that uses zero-carbon and energy-positive technology to ensure climate resilience.*
- *Strong cultural, recreational and shopping facilities in walkable, vibrant, sociable neighbourhoods.*
- *Integrated and accessible transport systems, with walking, cycling and public transport designed to be the most attractive forms of local transport".*

The TCPA claim[12] that sustainable urban extensions are a popular approach to delivering new development as they benefit from linking into existing infrastructure (such as transport, employment and social infrastructure) and have lower short-term costs as a result. They claim that "*unless they are properly planned, urban extensions can result in 'bolt-on estates', as ambitions fall away over time from the original vision. In practice, such bolt-on estates can encourage increased car use as they are usually little more than dormitories, often without an economic or community centre. However, well planned garden suburbs or urban villages could address these possible failings if they were to follow the* [Garden City] *principles*". Garden City principles are therefore equally applicable to strategic scale development in the form of urban extensions as well as freestanding new settlements and are recommended for all strategic scale new development.

According to the TCPA key benefits of a new Garden City, as opposed to an urban extension, include the following:

- Green belt land can be protected and 'urban sprawl' can be avoided.
- The population of a new Garden City can provide the critical mass to support facilities needed for low-carbon lifestyles, such as rapid public transport, low-carbon energy systems, jobs located within walking distance of homes, and a range of cultural and leisure services, including a green infrastructure network providing quick access to the wider countryside.

[9] See Neighbourhood Planning Act (2017) and The New Towns Act 1981 (Local Authority Oversight) Regulations 2018
[10] Available at: https://www.gov.uk/government/publications/independent-review-of-build-out-final-report
[11] Available at: https://www.tcpa.org.uk/guidance-for-delivering-new-garden-cities
[12] TCPA Practical Guide 1: Locating and Consenting New Garden Cities. Available at https://www.tcpa.org.uk/Handlers/Download.ashx?IDMF=7056094d-264e-4ac3-8d7c-53188c4f698d

- Any negative impacts on the environment can be dealt with in a holistic way, with avoidance, mitigation and enhancement considered from the outset and integrated into the design of a new settlement.
- A new Garden City can be linked via sustainable public transport to another Garden City or existing town to provide a broad employment and services offer.
- Politically, it can be advantageous to engage communities on a single larger proposal rather than on several smaller ones.

The process of identifying the most suitable locations for strategic scale new development (either as sustainable urban extensions built to Garden City Principles or new settlements) should be underpinned by a strong evidence base. This requires a range of constraints and opportunities assessments, including evaluations of housing requirements, urban capacity, employment and economic needs, transport capacity and environmental constraints including flood risk, biodiversity and landscape character. The available evidence base can then be synthesised with the local and regional strategic context to determine the most suitable broad spatial locations for future growth and whether a large-scale new community or Garden City is the most sustainable option.

This requires thinking beyond the Local Plan boundary – both in terms of timeframe (beyond the plan period) and beyond administrative boundaries. As both MHCLG and the TCPA point out strong local leadership that will be sustained beyond political cycles will be required, but also joint-working with adjacent local planning authorities, infrastructure providers and other stakeholders through the Duty to Cooperate. Given the lengthy lead-in and delivery times for new settlements local planning authorities should be thinking in 20-30 year timescales in their local plans and strategic policies rather than the minimum 15 years stipulated in national policy[13], reviewed and updated every 5 years.

National Planning Policy Framework (2019)

The latest National Planning Policy Framework (NPPF) document was issued in February 2019. This introduces minor updates and replaces the previous NPPF document issued in July 2018. This update was introduced together with the Government's response to the October 2018 technical consultations on updates to national planning policy and guidance and Housing Delivery Test results.

The NPPF sets out the Government's economic, environmental and social planning policies as well as their requirements for the Planning System. Paragraph 72 supports the creation of *new settlements or significant extensions to existing villages and towns* to plan for larger scale development and provide new homes. These initiatives should be brought forward with the support of local communities and include clear expectations for quality ("Garden City Principles"). Development should consider existing or planned infrastructure investment opportunities, an area's economic potential and scope of environmental net gain.

Furthermore, paragraph 72 a) states that local planning authorities should consider the opportunities presented by existing or planned investment in infrastructure, the area's economic potential and the scope for net environmental gains. Paragraph 72 b) adds that a development should create self-sufficient and sustainable communities that include services and employment opportunities within the development itself, or in larger towns to which there is good access. Paragraph 72 d) adds that a realistic assessment of likely rates of delivery should be made and opportunities for rapid implementations identified, such as joint ventures or development corporations.

Footnote 35, attached to paragraph 72, specifies that: "*the delivery of large scale developments may need to extend beyond an individual plan period, and the associated infrastructure requirements may not be capable of being identified fully at the outset. Anticipated rates of delivery and infrastructure requirements should, therefore, be kept under review and reflected as policies are updated*."

Paragraph 127 promotes the need to maintain a strong sense of place, optimising the site's potential by delivering appropriate quantum and mix of development, supporting local facilities and transport networks. New settlements will need to be identified and allocated through the Local Plan process and so they must be in conformity with the above mentioned policies as well as being capable of passing the soundness test (e.g. effective, justified and positively prepared) and the legal Duty to Cooperate[14].

Ashfield District Council contains a significant amount of Green Belt land to the south of the district towards Nottingham. Paragraph 136 states that "*once established, Green Belt boundaries should only be altered where*

[13] NPPF Paragraph 22
[14] The duty to cooperate was introduced by the Localism Act 2011 and is set out in the Planning and Compulsory Purchase Act 2004. Local Planning Authorities are bound by the statutory duty to cooperate.

exceptional circumstances are fully evidence and justified, through the preparation or updating of plans". Paragraph 137 states that before concluding that exceptional circumstances exist to justify changes to the existing Green Belt boundary, the strategic policy making authority should be able to demonstrate it has examined fully "*all other reasonable options*" for meeting its identified need for development. An examination of the potential for new settlements in non-Green Belt areas within the District is considered to be a "reasonable option" for further assessment during the plan-making process.

Paragraph 67 states that "*Strategic policy-making authorities should have a clear understanding of the land available in their area through the preparation of a strategic housing land availability assessment. From this, planning policies should identify a sufficient supply and mix of sites, taking into account their availability, suitability and likely economic viability. Planning policies should identify a supply of:*

a. *specific, deliverable sites for years one to five of the plan period; and*

b. *specific, developable sites or broad locations for growth, for years 6-10 and, where possible, for years 11-15 of the plan*".

Planning Practice Guidance

The Planning Practice Guidance (PPG)[15] provides further guidance on the process of undertaking a housing and economic land availability assessment as required by NPPF paragraph 67. An assessment should identify sites and broad locations with potential for development; assess their development potential; and assess their suitability for development and the likelihood of development coming forward (the availability and achievability).

The PPG confirms that a site is "suitable" if it would provide an appropriate location for development when considered against relevant constraints and their potential to be mitigated, taking into account national and local policy. A site is "available" if "*on the best information available (confirmed by the call for sites and information from landowners and legal searches where appropriate), there is confidence that there are no legal or ownership impediments to development*". A site is considered "achievable" for development "*where there is a reasonable prospect that the particular type of development will be developed on the site at a particular point in time. This is essentially a judgement about the economic viability of a site, and the capacity of the developer to complete and let or sell the development over a certain period*".

The guidance states at Paragraph 009: that "*Plan-makers will need to assess a range of different site sizes from small-scale sites to opportunities for large-scale developments such as village and town extensions and new settlements where appropriate*". Furthermore Paragraph 010 states: "*It is important that plan-makers do not simply rely on sites that they have been informed about, but actively identify sites through the desktop review process that may assist in meeting the development needs of an area*". In proactively identifying two potential locations for a new settlement Ashfield District Council has complied with the requirements of the PPG.

The output of the housing and economic land availability assessment will include an assessment of each site or broad location, including:

- where these have been discounted, evidence justifying reasons given;
- where these are considered suitable, available and achievable, the potential type and quantity of development, including a reasonable estimate of build out rates, setting out how any barriers to delivery could be overcome and when; and
- an indicative trajectory of anticipated development based on the evidence available.

Garden Communities

Paragraph 67 of the National Planning Policy Framework (NPPF), states that planning policies should identify a sufficient supply and mix of sites, taking account of their 'likely economic viability'. Further, paragraph 72 of the NPPF requires local authorities to make a realistic assessment of likely rates of delivery, given the lead-in times for large scale sites, and identify opportunities for supporting rapid implementation (such as through joint ventures or locally-led development corporations). Footnote 35 recognises that the delivery of large scale developments may need to extend beyond an individual plan period, and the associated infrastructure requirements may not be capable of being identified fully at the outset. As such, anticipated rates of delivery and infrastructure requirements should, therefore, be kept under review and reflected as policies are updated.

[15] Available at: https://www.gov.uk/guidance/housing-and-economic-land-availability-assessment

New settlements – issues and opportunities

Large-scale new community projects typically undergo a longer, more complicated and uncertain planning and development processes. A period of between five to ten years has been the norm in terms of the time taken between the beginning of the planning process and the start of construction on site for large-scale schemes. This presents challenges in respect of land value capture; long term stewardship; funding, phasing, build out rates and market absorption; and infrastructure delivery.

Achieving pace and quality are a central challenge to all strategic planning projects. Part of the reason is a complex statutory planning process which can lack a strategic framework for planning large-scale projects. Another obstacle is the level of objection and controversy raised; but even where projects have planning permission or are allocated in a local plan, projects can be dogged by delays and uncertainty in the implementation phase.

Implicit in all of this is that delays cost money and can frustrate local communities waiting for much needed social infrastructure. For example, the need for a new or improved major highways junction may be unclear because of the lack of an up-to-date transport model or agreement over whether the need for the works is being triggered by the development or by background traffic growth. Similar issues arise in relation to requirements for new or reinforced utility infrastructure or the diversion of existing above - and below-ground utilities. The costs and lead times relating to strategic infrastructure items such as these can be the difference between a viable project and one that requires grant support.

This study identifies where further detailed evidence will be required. Similar issues can arise in terms of requirements for social and community infrastructure with the costs of secondary school provision being a source of particular uncertainty given the changes to the arrangements for the delivery of schools and the difficulty in forecasting school place requirements into the medium/ longer term.

The assessment and mitigation of potential environmental impacts is another area of significant complexity. This may include consideration of the effects on sites designated under European or UK legislation, the management of flood risk, landscape and visual impact, noise and air quality issues, the protection and enhancement of heritage assets (archaeology tends, by its very nature, to be a significant unknown).

Issues such as these are complex enough in isolation, but greater complexity often arises as a result of the interdependences between issues. For example, changes to the design of a significant junction can impact on the outputs of a traffic model that will have knock-on implications for the assessment of noise and air quality. And that, in turn, may have implications for the use of land for sensitive uses such as homes or recreation which can have implications for the development capacity of the site and the overall cost and viability model.

In practice, this can mean doing no more than is needed to move to the next stage of the planning process or focusing on overcoming one key issue at a time rather than committing to a more comprehensive approach. This iterative approach fails when other issues arise that had not been on the radar as important areas for consideration. Projects can be particularly vulnerable to this risk where design development runs ahead of the evidence base that is needed to support it through the planning and development process. Our focus in this study is to provide a robust evidence base to inform plan making and implementation.

With a wider range of homes, as suggested in the Letwin Review of Build Out Rates, it is possible to deliver homes on major strategic sites more quickly by widening the range of homes on offer. According to the Letwin Review, once detailed planning permission is granted for large sites, the fundamental driver of build out rates is the ‘absorption rate’ or rate at which homes are sold. Generally, house sale rates are determined by the type and price of houses on offer. Including a diverse range of homes from one-bedroom apartments to larger family homes and bungalows will appeal to a wider range of buyer, increasing the overall demand. This, in turn, will help maintain house values and scheme viability, leading to a significant uplift in the number of homes built each year.

Typically, detached greenfield sites provide mostly larger, multiple-bedroom homes because families tend to be the buyers most willing to trade proximity to the office for open, green spaces and being close to good schools. However, broadening the mix to include apartments — which often account for around just 20 per cent of garden community housing — and other specialised housing types, such as retirement homes, creates more balanced and sustainable communities in line with the Letwin Review recommendations. A diversity of tenures, such as built to rent properties alongside owner-occupier homes, further widen the market and balance out community demographics.

Early upfront delivery of infrastructure makes a place more attractive to live in. This could be high quality public transport or a good local school. The UK's original garden city sites, Letchworth and Welwyn Garden City in Hertfordshire, for example, were chosen because of their location on railway lines that offered reliable public transport services to London. Simply put, access to social infrastructure and good public transport boosts people's interest in living in a community because it gives them the opportunity to get about affordably and access services, quickly and safely, without needing a car. Good public transport options are also a catalyst for the construction of higher density homes because they support a wider mix of activities and services, and also increase property prices. In addition, they reduce the amount of space needed for car parking allowing land to be developed more intensively. These connections may seem obvious but the often fragmented nature of public transport provision outside of our major cities tends to undermine efforts to integrate planning around public transport investment.

The design, characteristics and urban form of new communities should be considered early on as a factor to aid delivery. A picturesque lake, for example, can naturally lend itself to having nursing homes or apartments with balconies built around it. It is possible to determine which characteristics to include and where through an in-depth consideration of a place and the natural assets of the landscape. In this location the woodland blocks and watercourses should drive the green infrastructure and landscape strategy (and any future design stage). Including public green spaces, generous gardens and playing fields offers greater opportunity to not only create attractive and vibrant places, but also include more diverse housing, reinforcing the central point around the diversity of homes leading to higher absorption and therefore built-out rates.

Lead in times and build out rates

The Housing Land Monitoring Report (2020)[16] highlights that between 2015 and 2019 annual delivery has averaged ~449 dwelling per annum across the whole District. Appendix 1 of the Housing Land Report includes expected delivery rates for large sites under current policy, these range between 35-80 dwellings per annum.

In order to support multiple outlets and encourage higher delivery rates, a diversity of supply and the involvement of the public and third sectors (i.e. Registered Providers) will be necessary. This may include a variety of options based on the level of public sector involvement:

- Development Corporation;
- Public-private Joint Ventures;
- Preparation of masterplans and design codes;
- Direct delivery by the Council;
- Long term stewardship models;
- Involving local and national actors such as Homes England and Local Wildlife Trusts to deliver housing and manage the open space; and
- Non-traditional routes to delivery (e.g. community land trusts, modern methods of construction, Local Development Orders etc.)

These themes are explored in greater detail in Section 5.

2.2 Local context

Ashfield District Council

Ashfield District covers an area of 10,956 hectares with an estimated population of 127,200 (2018). It is located on the western side of Nottinghamshire, adjoining five districts within the county including Mansfield District to the north-east; Newark and Sherwood District and Gedling Borough to the east; and Nottingham City and Broxtowe Borough to the south. The western and northern boundary of the District forms part of the Nottinghamshire / Derbyshire border adjoining Amber Valley Borough Council and Bolsover District Council to the west and north-west respectively.

There are three Main Urban Areas in Ashfield District where the majority of housing, jobs and services are concentrated. The southernmost of these is Hucknall which lies immediately north of Nottingham. Kirkby-in-Ashfield and Sutton in Ashfield are to the north of the District and include the adjoining settlements of Annesley

[16] Accessed at: https://www.ashfield.gov.uk/media/8d85a56dbe9fec9/housing-land-monitoring-report-2020.pdf

Woodhouse/ Annesley, Huthwaite, Stanton Hill and Skegby areas respectively. Three villages of Jacksdale, Selston and Underwood also contain significant residential areas, but lack the concentration of employment opportunities and services found in the three towns. The remainder of the District is primarily countryside but contains a number of smaller settlements including Bagthorpe, Teversal, Fackley, and New Annesley together with smaller hamlets.

An extensive part of the District of Ashfield lies within the Nottingham and Derby Green Belt including land around Hucknall, land to the south, and east of Kirkby-in-Ashfield; and land surrounding the rural villages of Selston, Jacksdale, Underwood and Brinsley.

The main road links in Ashfield District are the M1 running north-south through the district, however only Junction 27 lies within the district. Junction 28 lies just outside the district to the west along the A38 which runs east-west linking Alfreton with Mansfield via Kirkby-in-Ashfield and Sutton in Ashfield. The A617 Mansfield-Ashfield Regeneration Route (MARR) runs along the north-eastern boundary of the district and forms a southern bypass around Mansfield which connects with the A38 at the east of Sutton in Ashfield. The A611 is the main north-south route through the district for local traffic connecting Kirkby-in-Ashfield with Hucknall and Nottingham.

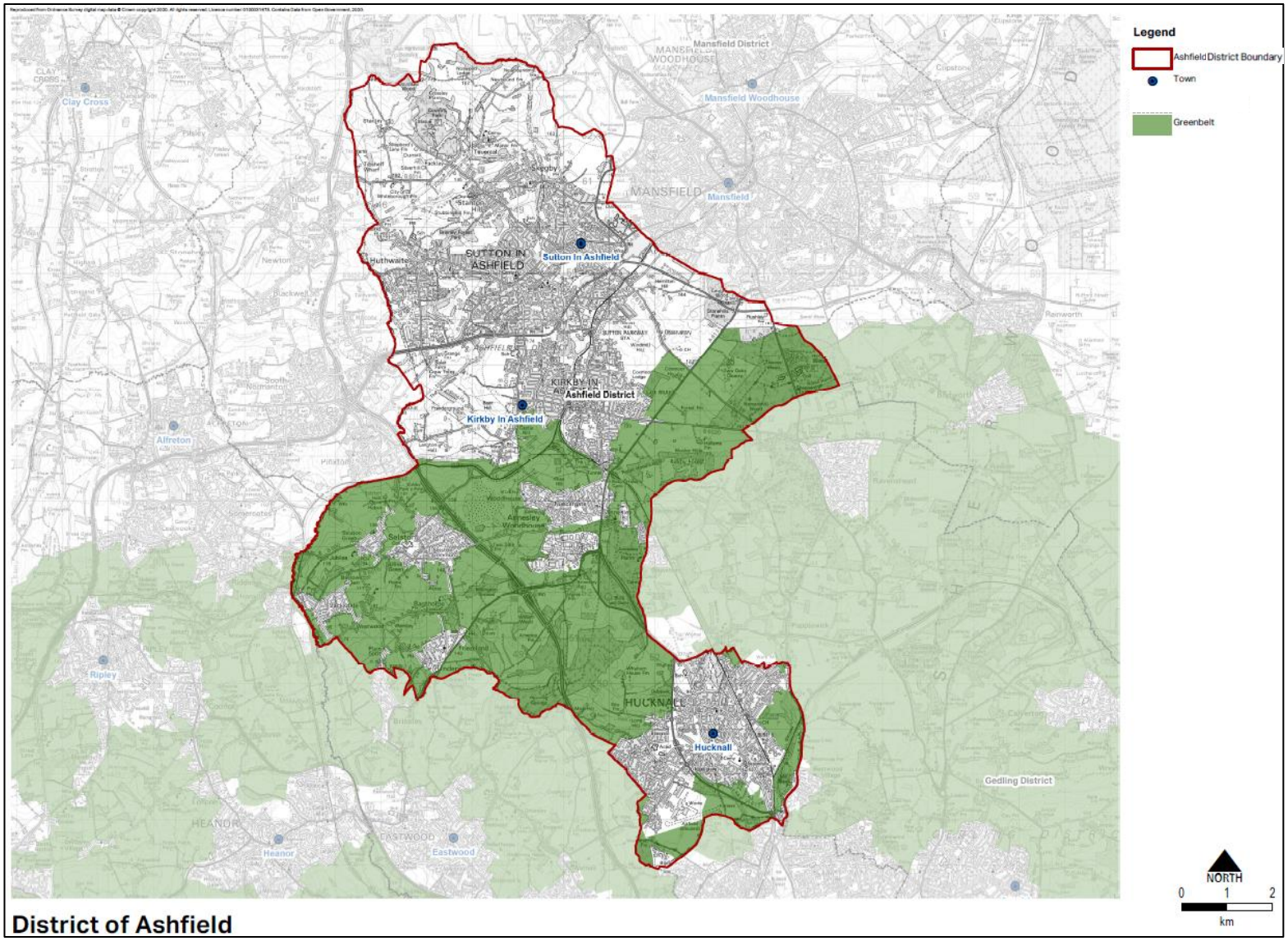


Figure 2: Ashfield District context (with Green Belt)

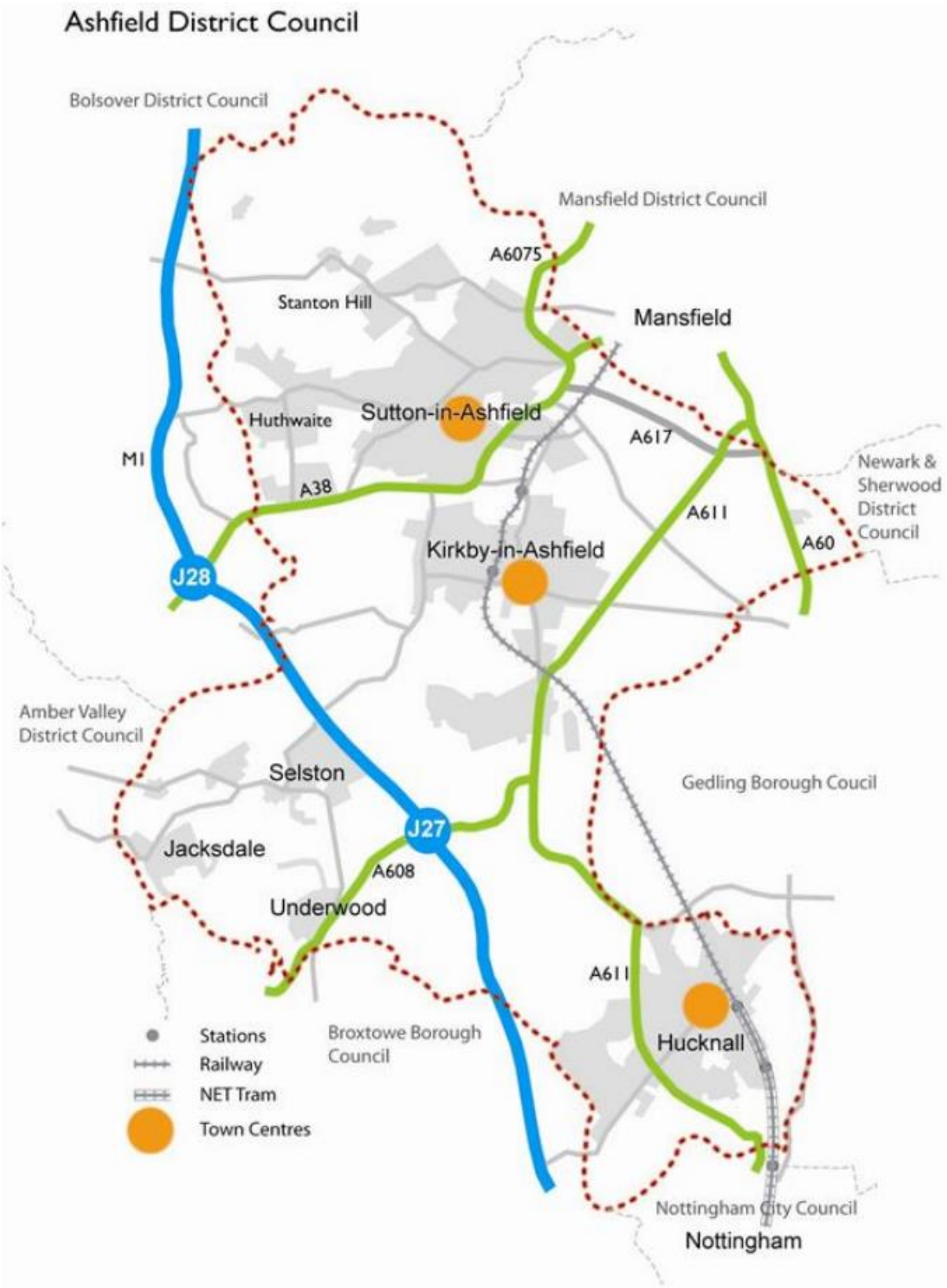


Figure 3: Ashfield District Council context (with town centres and transport connections)

Adopted Local Plan

The Ashfield Local Plan Review[17] was adopted in November 2002, with the plan covering the period up to 2011. In 2007, in line with the Planning and Compulsory Purchase Act 2004, the Council applied to the Secretary of State, through the Government Office for the East Midland's, to 'save' the majority of Local Plan policies until relevant Local Development Framework policies were adopted to replace them. A list of all 'saved' Ashfield Local Plan Review, 2002 policies can be found on the Council's website[18].

In accordance with the spatial strategy in the Nottinghamshire Structure Plan the spatial strategy in the Local Plan 2002 was to concentrate development within or adjoining the Main Urban Areas (Hucknall, Kirkby-in-Ashfield and Sutton in Ashfield) and provide for limited development within the villages (Jacksdale, Selston, Underwood, New Annesley, Bestwood and Brinsley). The plan sought to assist in the regeneration of mining areas and other areas suffering economic and environmental problems and protect and enhance existing town centres (Hucknall, Kirkby-in-Ashfield and Sutton in Ashfield).

The housing requirement was set out in the Structure Plan. In the Hucknall part of the South Nottinghamshire Sub-Area, it anticipated the construction of some 3,000 dwellings and provides for some 70 hectares of employment development. In the Sutton in Ashfield and Kirkby-in-Ashfield parts of the West Nottinghamshire Sub-Area, it allowed for some 5,550 houses and 235 hectares of land for employment

The proposed employment land allocations were generally concentrated in the Main Urban Areas of Hucknall, Kirkby-in-Ashfield and Sutton in Ashfield as they were well located to take advantage of the strategic transport network with excellent road links to the M1 motorway and rail links on the Robin Hood Line to Nottingham, Mansfield and Worksop. Strategic transport improvements were planned to support this spatial approach including the NET high speed tram link between Hucknall and Nottingham and the Mansfield-Ashfield Regeneration Route (MARR) to improve accessibility to the A1 and M1.

Following the Structure Plan the Local Plan 2002 followed a sequential approach to residential site allocations in order to minimise the loss of countryside and Green Belt prioritising Main Urban Areas first, then sites adjoining Main Urban Areas, and Named Settlements (the villages). The supporting text states that beyond Main Urban Areas "It has not been necessary to identify sites in these locations where less favourable access to existing infrastructure and facilities would make integration into an expanded urban area more difficult. It is not the intention of the strategy to identify sites as "freestanding settlements" which would raise demands for the provision of a wide range of substantial (and large scale) associated facilities including sites for shops, schools, leisure and community use which should more appropriately be located in existing urban areas and capable of use by the wider community".

The Local Plan set a settlement hierarchy for prioritising development at larger, more sustainable settlements with greater levels of service and infrastructure provision, and public transport accessibility. The first level of the settlement hierarchy covers the Main Urban Areas include Hucknall, Kirkby-in-Ashfield and Sutton in Ashfield. The second comprises the villages of Jacksdale, Selston, Underwood and New Annesley and the Ashfield part of the larger settlements of Bestwood and Brinsley. The third consists of smaller settlements in the countryside ("rural areas").

Emerging Ashfield Local Plan

An update to the Ashfield Local Plan Review 2002, the Ashfield Local Plan 2014, was submitted to the Government for Examination in Public in December 2013. The plan was withdrawn from examination in July 2014 following a recommendation from the Inspector who had concerns, *inter alia,* with the short length of the plan period, site selection process, Green Belt assessment and Sustainability Appraisal evidence.

Responding to the Inspector's concerns an updated Ashfield Local Plan 2016 was submitted for examination in February 2017, however, the plan was withdrawn from examination in September 2018 following a change in political control at the Council.

In accordance with Ashfield District Council's Local Development Scheme[19] work is underway on a new Local Plan. The emerging Local Plan offers the opportunity to shape development; avoid speculative planning

[17] Available at: https://www.ashfield.gov.uk/residents/planning-building-control-and-land-charges/forward-planning/local-plan-review-2002/

[18] Available at: https://www.ashfield.gov.uk/planning-building-control/local-plan/

[19] Available at: https://www.ashfield.gov.uk/planning-building-control/local-plan/emerging-local-plan/

applications; and provide a robust spatial strategy and development pipeline capable meeting needs and the requirements of the five year housing land supply and annual housing delivery test.

Ashfield is located within the Outer Nottingham Housing Market Area with Mansfield and Newark & Sherwood District Councils. It is understood that the emerging Ashfield Local Plan will cover the period 2020-2037 and will plan to meet local housing need of approximately 500 dwellings per annum in full. It is not expected that Ashfield District will be requested to meet unmet needs from Mansfield and Newark & Sherwood who are similarly seeking to meet their local housing need in full. Taking into account commitments and allowing for windfall development the Council has identified a minimum residual housing requirement of 5,211 dwellings to be met through allocations. A Regulation 18 draft plan will go out to consultation in autumn 2021. The Council anticipates adoption in 2022.

New settlement identification process

After the decision was taken to withdraw the Local Plan in 2018, the Local Plan Working Group requested officers to investigate the possibility of new settlements in Ashfield District. Officers undertook a desktop exercise to identify locations with the ability to deliver in excess of 1,000 dwellings in order to provide the critical mass necessary to support a primary school[20] and local shop. The desktop exercise took into account "showstopper" constraints[21] that preclude development (as per national planning policy), to identify less constrained areas in the district which were worthy of further assessment.

A total of five sites were initially identified via desktop analysis, however following further assessment work (including landscape and visual assessment and site visits) only two were considered suitable for detailed analysis in this New Settlement Study.

Nottinghamshire Minerals and Waste Local Plans

Nottinghamshire County Council is the minerals and waste planning authority for the county and adopted minerals and waste policies form part of the Ashfield development plan.

The Nottinghamshire Waste Core Strategy Part One was adopted in December 2013 and partly replaces saved policies in the Waste Local Plan (saved by Direction of the Secretary of State in 2007). Work on a new Waste Local Plan is underway with consultation on Issues and Options in Spring 2020.

The current Minerals Local Plan[22] was adopted in 2005 however work on a replacement plan is well-advanced with a new Minerals Local Plan submitted to the government for examination in public in February 2020. The submitted draft of the Minerals Local Plan[23] sets the strategic approach to minerals development including site allocations for *inter alia* aggregate, sand and gravel, sandstone, crushed rock; and Minerals Consultation Areas and Minerals Safeguarding Areas which seek to avoid the unnecessary sterilisation of viable mineral resources.

Adjacent Local Planning Authorities

On Tuesday 8 September 2020, Mansfield District Council resolved to adopt the Mansfield District Local Plan 2013-2033 at its meeting of Full Council.[24]. The development focus of the plan is on Mansfield urban area and along the Mansfield-Ashfield Regeneration Route (MARR) which runs along the Ashfield/Mansfield border to the north east of the District. A concentration of four Key/General employment areas to the south west of Mansfield borders Ashfield District and the Summit Park allocation.

There is a committed Sustainable Urban Extension to the south of Mansfield, Land at Berry Hill (SUE3), which straddles the MARR to the east of the A60 and west of the A6191 Southwell Road West and B6020 Southwell Road East. The site is allocated for 1,700 dwellings, 18.8ha of employment land and 1,000m2 of retail and leisure floorspace, with over 400 homes expected to be delivered after the end of the plan period (2033).

[20] As per Nottinghamshire County Council Planning Obligations Strategy 2018 - Education
[21] This included Flood Zones 2 and 3; Listed Buildings; Scheduled Ancient Monuments; Landfill Sites; Coal Authority High Risk Area; Safeguarded HS2 Route; LWS/SSSI/LNRs; Historic parks and Green Belt.
[22] Available at: https://www.nottinghamshire.gov.uk/planning-and-environment/minerals-local-plan/adopted-minerals-local-plan
[23] Available at: https://www.nottinghamshire.gov.uk/media/2327747/sd1-mlp-publication-version.pdf
[24] Available at: https://www.mansfield.gov.uk/local-plan/adopted-local-plan-2013-2033

2.3 Evidence base

Sustainability Appraisal Scoping Report (2020)

The Council is required to undertake Sustainability Appraisal (SA) to support the emerging Local Plan. SA is a process of assessing the significant economic, social and environmental effects of a plan and its policies both overall and against reasonable alternatives to the plan.

The first stage of the SA process is to consult on the scope of the SA to understand the key issues to be taken into account in developing reasonable alternatives and undertaking the assessment. The Scoping Report[25] presents a review of the policy context and baseline situation before proposing a SA framework which will be used to appraise the effects of the Local Plan and any reasonable alternatives.

The Scoping Report outlines a number of "Issues and problems" for the SA to take into account. A selection of key spatial issues of relevance to this New Settlements Study are presented below:

Housing:

- There is a need to provide sufficient housing of a type and tenure to meet specific needs.
- While the District is perceived as an area of affordable housing, when income levels in Ashfield are taken into account, housing affordability is an issue in the District.
- Minimum densities are set out by the Ashfield Local Plan Review, saved policies but these do not fully reflect national policy.

Infrastructure:

- There is a need to provide the necessary infrastructure to accommodate current and future development needs in terms of physical green and social infrastructure.
- With the predicted increase in households there is likely to be a need to expand schools or provide new schools as a significant number of schools in Hucknall, Kirkby-in-Ashfield and Sutton in Ashfield are currently at or near capacity.

Town centres:

- The District has three shopping centres that need to be supported in order to keep them vital and viable (Hucknall, Sutton in Ashfield and Kirkby-in-Ashfield).

Health and wellbeing:

- Residents of Ashfield have a shorter life expectancy than averages for England.
- To improve health and wellbeing, and to prevent ill health (e.g. through healthy eating and exercise).
- New health, sporting, leisure and recreational facilities should be provided encouraging walking, cycling and more active lifestyles.
- The development of a high quality multifunctional green infrastructure network should be promoted.

Transport:

- There is a need to embed accessibility into locational requirements for development and decision making and the access to services (such as health, education and leisure).
- Ensure that new development has good access to facilities and alternative means of travel.
- Reducing the dependency on the private car.
- Traffic congestion is an issue in Ashfield reflecting the new development proposed.
- To facilitate alternative forms of transport including encouraging more people to walk and cycle.
- Significant new development will need to facilitate bus services to gives choice of transport mode.

[25] Available at: https://www.ashfield.gov.uk/planning-building-control/local-plan/sustainability-appraisal/

- The implications that over the life of the Plan combustion engines are likely to be increasingly phased out and replaced by ultra-low emission and electric vehicles.

Employment:

- While there are extensive employment sites in Ashfield these are largely currently occupied.

Environmental:

- Ensuring that the plan proposals have no adverse effect upon the South Pennines Special Area of Conservation (SAC), the Birklands & Bilhaugh SPC and the Sherwood Forest possible potential Special Protection Area.
- Addressing contamination issues relating to previous land uses.

Minerals and waste:

- New development needs to include provision for waste recycling facilities
- Avoiding development on safeguarded mineral resources where this needlessly sterilises the minerals resource.

Ashfield Housing Land Monitoring Report (April 2020)[26]

Under the NPPF's standard method, the housing need for Ashfield at 2020 is 482 dwellings. The NPPF also requires that the Council should identify and update annual a supply of specific deliverable sites sufficient to provide a minimum of five years' worth of housing against their housing requirement. **Figure 4** sets out the housing trajectory for Ashfield over the plan period 2020-2037.

It is estimated that Ashfield currently has a five-year housing land supply figure of 2.53 years. Ashfield "passed" the Housing Delivery Test (HDT) for the 2018 and 2019 (116% and 95% respectively, above the threshold for any "sanctions" under the Housing Delivery Test). In 2020 Ashfield failed the HDT (65%) and is now subject to the presumption in favour of sustainable development.

The Housing Land Monitoring Report (2020) states that average completions per year from 2011 to 2020 are 410, less than the LHN of 482. The report goes further to state that 13% of housing between 2010 and 2020 was delivered as affordable housing (of all housing not only sites with 15 or more dwellings).

In considering density delivered on large sites (sites of 0.4 ha or more, or 10 dwellings or more) the Monitoring Report notes that the vast majority (73%) are delivered at medium density of 30-50 dwelling per hectare (dph), whereas only 17% and 9% are delivered as low density at less than 30 dph and high density at more than 50 dph respectively.

[26] https://www.ashfield.gov.uk/planning-building-control/local-plan/monitoring/

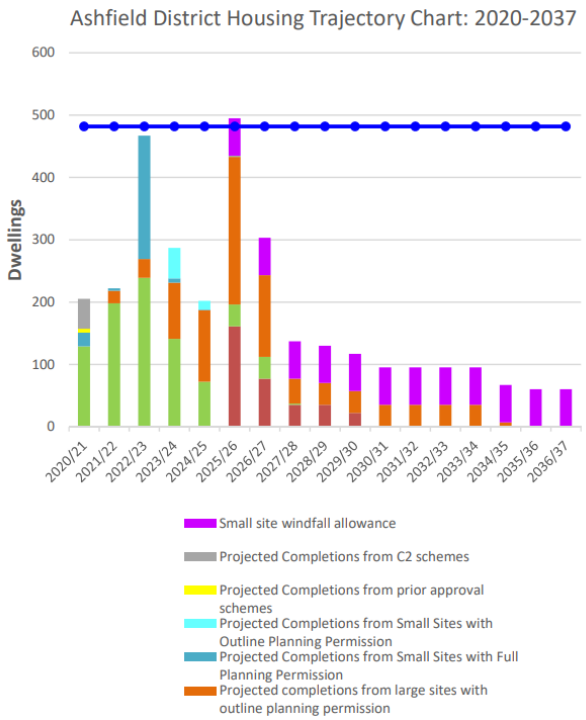


Figure 4: Ashfield District Housing Trajectory 2019-2037

Strategic Housing and Employment Land Availability Assessment (SHELAA)

The Council held a "Call for Sites" in 2019 seeking contributions from landowners, developers and other stakeholders to identify potential development land for inclusion in the emerging Local Plan. The submitted sites will be assessed in the SHELAA in accordance with national policy and guidance.

The assessments included in the SHELAA will form a critical part of the evidence base for the emerging Ashfield Local Plan and will help to inform strategies for growth, infrastructure and investment. The assessments ultimately enable sustainable site selection from a pool of suitable, available and achievable sites to meet identified housing and economic development needs.

Work on the SHELAA assessment is ongoing and results are not publicly available (as at December 2020). Whilst the results are as yet unavailable the SHELAA methodology (2019)[27] has been published. The methodology is in line with the Planning Practice Guidance but utilises assumptions that are specific to the Ashfield context.

The SHELAA provides guidance on gross-to-net development ratios and housing densities. **Table 2** below outlines the gross-to-net ratios that the SHELAA will apply to discount the parts of the site that will not be used to deliver housing, with larger sites providing proportionally more green infrastructure, sustainable drainage systems (SuDS), open space, community facilities and roads within the "red line boundary".

Table 2: Ashfield SHELAA Gross to Net Ratios

-	Site Size	-	Gross to Net Development Ratio
-	Below 0.4ha	-	100%
-	Between 0.4ha - 2.0ha	-	90%
-	Between 2.0ha – 10.0ha	-	75%
-	Over 10.0ha	-	60%

[27] Available at: https://www.newark-sherwooddc.gov.uk/media/newarkandsherwood/imagesandfiles/planningpolicy/pdfs/prefapp/Strategic%20Housing%20Market%20Assessment.pdf

Densities will be calculated from the net developable area to estimate the overall capacity, based on existing policy. Currently for Ashfield, the approach is set out in the Ashfield Local Plan Review, 2002 'saved' policy HG4. Densities on sites of 0.4 hectares and greater, within the walking distance below from District Shopping Centres, Robin Hood Line Stations or Nottingham Express Transit Rail stops will be:

a. 40 dwellings per hectare within 400m

b. 34 dwellings per hectare within 1 km

c. 30 dwellings per hectare elsewhere

The Council has also analysed housing schemes completed in the past 3 years to understand how the build-out rates vary for different sized sites. The annual delivery rate assumptions are set out below:

Table 3: Ashfield SHELAA Annual Delivery Rate Assumptions

Site size/house types	Dwellings per year
1 – 4 houses	2
1 – 4 flats	4
5 – 10 houses	5
5 – 10 flats	10
10 – 499 houses	35
>10 flats	50
>500 dwellings	80

The SHELAA methodology does not set out any analysis of lead-in times and how they vary according to site size.

Nottingham Outer 2015 Strategic Housing Market Assessment

The Nottingham Outer 2015 Strategic Housing Market Assessment (SHMA) was published in 2015[28], with an update published in 2017 taking into account updated household projections stating that the latest data does not appear to render the SHMA or objectively assessed need as out of date[29]. It identifies an objectively assessed need figure of 480 dwellings across Ashfield per annum. With the publication of the 2018 NPPF and the move away from objectively assessed need (OAN) to calculating Local Housing Need through the Standard Method this 480 dwelling per annum figure has been superseded.

Table 4: Need for different sizes of homes across the Nottingham Outer HMA (Table 92, Nottingham Outer 2015 Strategic Housing Market Assessment)

	1-bed	2-bed	3-bed	4+bed
Market	5%	35%	50%	10%
Affordable	35%	35%	25%	5%
All dwellings	10%	35%	45%	10%

The SHMA does not specify an affordable housing percentage to be set in policy, stating that this should be set subject to viability testing, however it does use a working assumption of 20% affordable housing. The SHMA assessment of affordable housing needs indicates that, in delivering affordable units, an HMA-wide mix target of 20% intermediate and 80% social or affordable rented homes would be appropriate. A new local housing need

[28] Available at: https://www.ashfield.gov.uk/media/8d895173f528d10/final-shma-oct-2015-note-added-11-2020.pdf
[29] Available at: https://www.ashfield.gov.uk/media/8d895173f528d10/final-shma-oct-2015-note-added-11-2020.pdf

study[30] has since been prepared on behalf of the Greater Nottingham Planning Partnership ("GNPP") – see below.

Greater Nottingham & Ashfield Housing Needs Assessment Final Report (2020)

The GNPP comprising Broxtowe Borough Council, Erewash Borough Council, Gedling Borough Council, Nottingham City Council and Rushcliffe Borough Council; as well as Ashfield District Council, commissioned Iceni Projects ("Iceni") to prepare a Housing Needs Assessment. The report makes recommendations on market housing mix and seeks to respond to recent delivery trends and the needs for family households; as well as the role which each area plays in the wider housing market area. In terms of affordable housing provision, consideration was given to affordability as well as the types of housing which will meet the needs of those of greatest priority. The mix modelled in this study broadly correlate with the recommendations from Table 8.12 in the report in shown below:

Figure 5 Recommended Housing Mix by Size by Type (Iceni, 2020)

Authority	Housing Type	1 Bed	2 Beds	3 Beds	4+ Beds
Ashfield	Market	4%	27%	45%	24%
	Affordable Home Ownership	23%	38%	24%	15%
	Affordable Rented	35%	37%	25%	3%

This report was not available at the time that the viability appraisals in this report were prepared.

Green Infrastructure and Biodiversity Technical Paper

The local approach to green infrastructure and biodiversity is set out in the Council's Green Infrastructure and Biodiversity Technical Paper 2013[31]. This examines the connectivity of green spaces at a local level and identifies green infrastructure network opportunities and ensures that the Green Infrastructure network is protected and enhanced. The Technical Paper includes a number of maps which set out various aspects including Key Habitat Linkages; Accessibility; Community facilities; Green Infrastructure Networks. Of note for this study is that the Coxmoor Golf Course adjacent to the Cauldwell Road site is a Local Wildlife Site (LWS) and at the Pinxton Lane site there are LWSs along the southern boundary, the former minerals railway and along the Dumbles.

Figure 8.3 of the paper shows "notable gaps in accessible network", of which one runs directly over Site 2 from Sutton in Ashfield to Thieves Wood in the east.

Strategic GI Corridors are shown on Figure 8.10. Corridor 15 is shown as a "missing link" across Site 1 running along the former railway from Kirkby-in-Ashfield towards Huthwaite.

Local GI Corridors shown on Figure 8.13. S13 and K11 are of relevance for Site 2. There is a future green space to the south west of Site 1 on the location of a former colliery tip, connected to the site by a local GI corridor.

Greater Nottingham Landscape Character Assessment (2009)

The Greater Nottingham Landscape Character Assessment 2009[32] provides a way of assessing the varied landscape within Greater Nottingham and contains information about the character and condition of the landscape to provide a greater understanding of what makes the landscape within Greater Nottingham special.

The study has recognised this through the identification of 79 Draft Policy Zones (called Landscape Character Types within Erewash Borough). The Draft Policy Zones identify how well the landscape character areas could adapt to change without severe detrimental effect on their character and integrity; and provide guidance on how to protect special landscapes and improve less special landscapes.

[30] Available at: https://www.ashfield.gov.uk/media/8d890976f713e6c/2020-11-10-greater-nottingham-and-ashfield_housing-needs-assessment_final.pdf
[31] Available at: https://www.ashfield.gov.uk/media/8d850ab08570685/ashfield-green-infrastructure-and-biodiversity-technical-paper.pdf
[32] Available at: https://www.ashfield.gov.uk/media/8d850ab486860f4/greater-nottingham-landscape-charater-assessment-ashfield-part-only.pdf and https://www.ashfield.gov.uk/media/8d850aac1301036/addendum-to-landscape-character-assement.pdf

3. Site 1 – Kirkby Lane/Pinxton Lane, Kirkby-in-Ashfield:

Figure 6: Site 1 location plan

3.1 Site overview

Kirkby Lane/Pinxton Lane (Site 1) is located to the west of Kirkby-in-Ashfield. It covers approximately 117 hectares and has an initial estimated capacity of 1,750 dwellings identified by Ashfield District Council officers (subject to further testing through this study).

The site is gently undulating from north-south with the southern part of the site forming a minor north east to south west ridgeline between The Dumbles (that crosses the site from north east to south west) and the River Erewash further to the south (along broadly the same alignment). The high point of the site is north east or Cliff Lane.

The existing land use within the site includes three dwellings: the first is a three bedroom farmhouse located to the west of Cliff Lane, the second is located along the southern boundary of the site, slightly east from Cliff Lane and the third is located in the south eastern section of the site.

In addition, there are a number of dispersed clusters of agricultural buildings and/or light industrial units within the site and to the south of the site east of Cliff Lane there is a dog walking facility.

The majority of the site is made up of a patchwork of agricultural fields in multiple ownership, primarily arable uses, which are defined by well-established hedgerows, treelines, watercourses and public rights of way, including nine within the site and a further five immediately outside the boundary. In the centre of the site there is an area of Deciduous Woodland.

There are a number of land uses adjacent to the site. The immediate surrounding uses of the site mainly consist of agricultural fields and associated buildings.

The western boundary is formed by the safeguarded route alignment for HS2 which whilst not currently operational is planned for construction and operation during the Local Plan period.

An employment area, Castlewood Business Park, adjoins the north western boundary of the site and beyond this there are further employment uses and a shopping centre, the East Midlands Designer Outlet. In addition, to the north of the A38 there is a large area in light industrial use. Crow Solar Farm is located directly adjacent to the northern boundary and next to this is Midland Aerospace Ltd.

Land uses which are not directly adjacent to the site include the road network accommodating the M1 and the A38, fairly extensive employment areas and residential use. Brookhill and Wharf Road Industrial estates are located approximately 1km south west of the site, Kirkby-in-Ashfield is located approximately 1.5km east of the site which is considered one of Ashfields main urban areas and has a number of services and facilities. In addition, Pinxton is located approximately 1.5km west of the site.

In terms of the strategic road network, the site is located east of the M1 motorway and south of the A38. In terms of the immediate local highway network, Pinxton Lane to the north of the site is a narrow two-way single carriageway road. To the south of the site, Kirkby Lane connects Pinxton with the B6018 (which provides subsequent connection to Kirkby-in-Ashfield).

There are two existing points of access for this site, Pinxton Lane and the B6019. A potential access for the site is off Pinxton Lane to the north, however not all of the land along the northern boundary along Pinxton Lane has been confirmed as available by the landowners. All land that is currently considered to be available is accessed from B6019 to the south. There are three established access roads off Kirkby Lane, serving existing agricultural buildings including Kirkby Cliff Farm which is accessed from an unmade road (Cliff Lane) off the B6019.

The nearest railway station to the site is Kirkby-in-Ashfield railway station, which lies 3km to the east of the centre of the site as the crow flies. Sutton Parkway Station lies 3.75km northeast of the site as the crow flies. Both stations lie on the Robin Hood Line, which connects Nottingham to Worksop. The towns and villages served by the route are Nottingham, Bulwell, Hucknall, Newstead, Kirkby-in-Ashfield, Sutton in Ashfield, Mansfield, Mansfield Woodhouse, Shirebrook, Langwith, Nether Langwith and Whaley Thorns, Cresswell, Whitwell and Worksop.

The B6019 has a two bus routes serving it, linking the site to Sutton in Ashfield and Mansfield to the north east and Ripley and Derby to the south west. There are no direct bus services linking the site with Kirkby-in-Ashfield railway station.

Air Quality in the District of Ashfield has been regularly reviewed by ADC for many years and has been confirmed as achieving national air quality objectives set for the protection of human health. The proposed settlement is far enough away from the M1 for the emissions from the M1 to not have a significant effect on the site.

Emissions from road traffic on the A38 are of concern but at this time annual mean concentrations of nitrogen dioxide do achieve objective value concentrations at all relevant receptor locations. ADC have engaged with the Nottinghamshire Environmental Protection Working Group and at the regional level through the East Midlands Air Quality Network to develop a Nottinghamshire Air Quality Strategy which was due for release late 2020.

Future planning applications should consider if the development would significantly affect air quality at:

- Designated ecological sites, especially from road traffic emissions
- Provide details of operational practices to manage construction dust adversely effecting health of amenity

Significant adverse effects are unlikely to be associated with the proposed development and while formal mitigation may not be required, there are good practice measures that future planning applications could look to include. For example:

- A demolition/construction dust impact assessment that results in a dust management plan for the proposed works;
- Consideration of charging infrastructure for plug in electrical cars and vans at retail centres and residential properties;
- Including infrastructure to reduce private car usage, by facilitating cycling or walking
- Access to rail or bus services that reduce journeys along busier strategic routes such as A38/M1.

3.2 Opportunities and constraints analysis

Strategic planning

The site contains and is in close proximity to a number of designations in the Adopted Local Plan (2002). Firstly, the whole of the site are is covered by Policy EV2 Countryside which states that permission will only be given for appropriate development. Development must be located and designated so as not to adversely affect the character of the countryside, in particular its openness.

Secondly, an area of the site is covered by Policy EV4: Mature Landscape Areas, which states that development which does not adversely affect the character and quality of mature landscape areas will be permitted. EV4Rj ‘Dumbles’ is located to the south west of the site with only a very small proportion of this mature landscape area falling within the boundary of the site.

The third designation is EV6: Nature Conservation Site, for which the policy states that development which adversely impacts local nature reserves will only be permitted where provision is made within the development for the protection of features of nature conservation or geological significance or where the development cannot be located elsewhere. There are five of these conservation sites located within the site boundary.

Fourthly, the site contains an area of EV8: Ancient Woodland, this is a thin strip of woodland in the north of the site: EV8/5 ‘The Dumbles’ . The policy states that development which adversely affects trees worthy of retention, including woodland and individual trees, will not be permitted. Where trees are lost as a result of development, replacement or mitigating planting will be required.

Lastly, adjacent to the site there is an area covered by Policy EM1 Employment Land Allocations, Ref. Sa Pinxton Lane and which provides 28.0 ha of employment land.

The majority of the site is located within a Minerals Safeguarding Area and Minerals Consultation Area for surface coal.

The government has published safeguarding information for the HS2 route to prevent planning decisions and development from potentially impacting or preventing the route from coming forward. On 21st January 2021, the

Secretary of State issued revised safeguarding mapping for Phase 2b which replace all previous versions, to reflect these route changes. The changes do not impact on the likely developable area of site 1 within Ashfield.[33]

Economics

The surrounding area of the site has attracted high-value businesses in priority sectors that generate desirable opportunities for residents. The three Science and Innovation Core priority sectors for the LEP were recognised as: transport equipment manufacturing, food and drink manufacturing and life sciences. The site appears attractive to employers and future development, particularly as the M1 road accessibility is conducive to these priority sectors. While there is some risk to for employment given the low population density of the surrounding area and the distance to the nearest train station, businesses are likely to have opportunities in the LEP's priority or identified sectors whilst residents would be brought closer to existing economic assets in the LEP's documents. Economic opportunities on the site also have potential to reduce deprivation levels in the immediate and surrounding area. Therefore, the assessment site is considered to be attractive for future economic development.

Access and movement

The site is located in a comparatively isolated location with few facilities within recommended walking and cycling thresholds. A number of existing PRoW run through the site and the Castlewood Business Park is accessible for those living within the northern parcel of the development. Upgrades to existing PRoW and crossing points are likely required.

Some residential parts of Sutton in Ashfield and Kirkby-in-Ashfield are accessible within a 5km cycling threshold; however, most employment and retail areas are not contained within this threshold. Some existing shared footways are available to the north of the site (as part of the Castlewood Business Park development). Cycle infrastructure would be required to connect the site, particularly to Sutton Parkway and Kirkby Railway Stations.

Bus stops are located along Kirkby Road, Pinxton Road (for Castlewood Business Park) and within Pinxton village. None of these bus stops lie within 800m of the site. Three regular bus services serve these stops with a frequency of every 30 minutes or every hour. A discussion with operators would be required regarding diverting one or more of these services into the site.

Sutton Parkway and Kirkby-in-Ashfield Railway station are not currently accessible within recommended walking and/or cycling thresholds. Upgrades to cycle infrastructure would however enable these sites to be reached within the recommended 5km cycle threshold. No bus routes connect direct to this station.

At least two access points would be required to serve 1,600 dwellings. Two access opportunities have been identified: Pinxton Lane to the north, and Kirkby Lane to the south. At this stage, it is anticipated (ahead of detailed modelling) that both would be provided as roundabout junctions. Pinxton Lane provides access to the A38 to the north. Pinxton Lane and Kirkby Road are both two-way single carriageway minor routes and are narrow in places. Data shows a concentration of collisions on Kirkby Lane, likely related to speed. As such, traffic calming is a suggested mitigation measure.

It is likely that trips would gravitate north towards the A38 and M1, concentrating impacts on these routes. However, given the size of the site a dynamic highway re-assignment model would be needed to fully assess assignment of development traffic. Further junction capacity tests would also be required. Given the M1 Junction 28 and A38 are existing locations of congestion, it is likely that any mitigation would relate to the contribution to a larger scheme, rather than a scheme specific to the proposed development site.

Ground conditions / geotechnical

The following potential on-site and off-site sources of contamination have been identified:

- On-site sources:
    - Made ground: potential for made ground based on current and historical land uses including;
    - Current farms and farmland;
    - Potentially infilled clay pit (in the northern area); and

[33] Accessed at: https://www.gov.uk/government/collections/safeguarding-information-and-maps-for-hs2#phase-2b-maps-(crewe-to-manchester-and-west-midlands-to-leeds)

  - Historical railway in the north and east.
  - Coal seams: potential for ground gas from coal bearing strata.
- Off-site sources:
  - Made ground: potential for made ground based on current and historical land uses including;
  - Mapped made ground adjacent to the south of the site;
  - Current farms and farmland: adjacent and up to 250m from the site;
  - Historical landfill: adjacent to the north of the site;
  - Historical railway: adjacent to the south of the site;
  - Electricity distribution station and substation: adjacent to the north of the site; and
  - Light industrial/commercial land uses (Castlewood Business Park): adjacent to the north of the site.
- Coal seams

Coal outcrops in various directions across the site are identified as 'Development High Risk Areas'. This indicates that these features have the potential for instability or a degree of risk to the surface from the legacy of coal mining operations. There are no recorded mine entries located on-site, the closest is located approximately 50m east and is identified as a 'Development High Risk Area' and there are no past shallow coal mine workings, probable shallow coal mine workings or past and current surface mining mapped on-site or within 250m, although unrecorded workings may exist.

The Nottinghamshire Minerals Local Plan indicates that the site and the surrounding area is located in a Mineral Safeguarding Area (MSA) for surface coal.

There is considered to be a generally low to locally moderate potential risk of ground contamination. The moderate risk is limited to the location of the potentially infilled clay pit to the north of the site, historical railway north and east of the site and also the area in close proximity to mapped made ground and landfill (located adjacent to the site to the south and north, respectively). Potential on-site sources are limited but there may be made ground present which may not have originated from the site, as well as localised point sources associated with the site's agricultural use, potentially infilled clay pit and historical railway use.

Historical landfills, infilled ground and shallow coal seams (on-site and off-site) may pose a potential ground gas risk.

A ground investigation report should be produced for geo-environmental and geotechnical risk identification and interpretation. Following intrusive investigation and interpretation, proposed mitigation solutions can then be recommended.

Services / utilities location and capacity

The utilities report identified a number of affected and unaffected utilities on the site, these are discussed below. On the site visit a number of significant utilities constraints were also identified, including overhead electrical power lines and marker posts for a below ground gas main crossing the site from north west to south east.

The major risks to the development from utilities are:

- Existing overhead power lines (132kV) which would pose a significant constraint on the layout of the development and likely to be a significant cost to divert.
- Existing below ground intermediate pressure (IP) gas main which would pose significant constraint on the layout of the development, not on the same line as the O/H power line. Again, likely to be significant cost to divert.
- Unknown off-site reinforcement for new supplies. As while all major services are present in the area, new supplies may need off-site reinforcement to provide sufficient supply such as water supply.
- Sustainable energy strategy is difficult to assess given the unknown future demand for power due to changing energy supply models.

In addition, there are a number of less major risks to development such as the presence of lower voltage power lines crossing the site, there is a three-inch cast iron potable water main within the site boundary and there are some overhead telecoms lines serving existing properties.

Drainage

There are a number of key risks to the development from flooding which include surface water flooding immediately adjacent to the existing watercourses. The requirement for significant areas of land to attenuate the flow in order minimise the risk of flooding downstream; the steep nature of the site means that forming a level attenuation pond may require additional earthworks, and therefore the area of land required may be larger.

The requirement for a design of the residential areas which incorporates source control SuDS features where possible and in accordance with the SuDS manual. In addition, a strategy for the future adoption of any SuDS features should be agreed early in the scheme and the future maintenance costs considered.

There is a requirement for a bridge over the watercourse with a clear span to minimise the impact on surface water flood routes. The location may be constrained by the existing utilities and whether they are relocated or can be accommodated in the design of the structure.

However, the site is in Flood Zone 1 and in the absence of detailed ground information or soakaway tests, the use of infiltration systems has not been considered, these may be appropriate and if so, the volume of attenuation can be reduced.

Historic environment

There are no designated heritage assets within the site boundary. There is one Locally Listed building within the site boundary: Cliff Farmhouse and Cart shed, which is located in the south west corner of the site at the junction of Kirkby Lane and Cliff Lane. Although both are screened from the majority of the site by modern farm buildings, their significance depends on their current agricultural setting. Should the asset be listed, development on the site that took away that setting may constitute substantial harm and pose a threat to an application. In addition to this, there are a further three Locally Listed Buildings within 500m of the site boundary. There is a slight possibility of the assets being statutorily listed however, it is not considered to present a high degree of risk.

There are two Grade II Listed Buildings within a 500m study area of the site boundary; Brookhill Hall and the associated Stable block at Brookhill Hall. Despite the extensive modern development to the north and west of Brookhill Lane the hall has retained the parkland/woodland setting it enjoyed in the 19th century however, as both are screened from the site by vegetation and at almost 500m distant it is not considered that development on the Site would undermine their significance.

The nearest Scheduled Monuments are those of Pinxton Castle motte and fortified manor 800m north-west of the Site boundary, Castle Hill fortified manor 1.1km east of the site boundary, and Fishponds 220m east of St Wilfrid's Church 1.3km east of the site boundary.

There are no conservation areas within the site boundary, the nearest being Kirkby Cross Conservation Area which was adopted by Ashfield District Council in September 2004. Development to the north of the B6019 Kirkby Lane will change the setting of Kirkby Cross Conservation Area as it is approached from the west however, it is not considered that the change in setting will diminish the area's significance. The Site is not within the setting of the three scheduled monuments located within the conservation area.

Nottinghamshire's Archaeological Advisor is likely to require an archaeological evaluation carried out ahead of construction to identify, characterise, and assess the significance of any non-designated archaeological assets present within the Site. Should investigations uncover significant archaeological remains, there is a further risk that the council may require these to be recorded through archaeological excavations to a level commensurate with their significance

It is proposed that a Heritage Statement be completed in support of an application for development of the site. This Heritage Statement will take special consideration of the potential effects of the proposed development on the setting of the historic buildings and its impacts on the potential archaeological resource.

Landscape

The site area is elevated, with some long views to the south. It has a low landscape sensitivity yet a medium visual sensitivity owing to the long views available to the south from the eastern edge of the site, as well as from the north west across the site.

The woodland running through the northern half of the site forms part of a local wildlife site, but there are few other conservation interests within the surrounding context and therefore a low landscape sensitivity.

The areas to the north, east and west of the site are relatively built up, with some industrial and commercial areas present. Therefore, development of the site has the potential to result in perceived sprawl, particularly to the south-east of the site. Kirkby Lane and Pinxton Lane both form defensible boundaries, as does the dismantled railway line. The rest of the site edges are formed by field boundaries.

The site is potentially suitable on landscape grounds, albeit a landscape buffer is recommended in the far south-eastern corner of the site, where the more open views are located. It would be desirable to retain the green corridor associated with The Dumbles within any new development.

Social infrastructure

On site nursey provision would be required to mitigate the development, equating to two 50 place nurseries. There is a significant deficit in total primary school place capacity across the existing schools. Therefore, again on site provision will be required to mitigate the primary school impacts from the development, most likely in the form of a 2FE school. In terms of secondary school places, there is some capacity in across the outer impact area and off-site provision has the potential to mitigate the secondary school impact, again with a 2FE school.

There are localised capacity issues for individual GP practices and at an area wide scale there is a deficit in capacity, resulting in a need for two additional GPs and two dentists. Occupancy data for hospitals underpins a relatively significant capacity of spare beds albeit Sherwood Hospitals NHS Foundation Trust has significantly more overall capacity than Nottinghamshire Healthcare NHS Foundation Trust, particularly of general acute hospital beds. Overall, there is likely to be a need for approximately 9 additional hospital beds. In addition, it would be likely that an onsite bespoke solution be explored to cater for additional elderly care needs from the development, which could take the form of Extra Care housing to the scale of 40 units which would need to form part of the proposed housing mix.

Given the close catchment standards for community and library facilities it would be expected that some form of multipurpose community facility including the ability to host library services be located on the development site. The requirement is equivalent to a maximum of 271 sqm of community space and 116 sqm of library space. There is requirement for indoor sport provision, equivalent to 0.3 sports halls and 0.2 of swimming pools, neither necessarily to be delivered on site. In addition, there is a requirement for 4.7 hectares of outdoor sports space, again on or off site.

Lighting

The site has a more natural aspect within a suburban / urban setting. This typically describes a location that is consistent with a lighting environmental zone E1. New development is expected to require new lighting for safe use and access. Key receptors which could be affected by new lighting are expected to consist of local residential amenity, ecology, where present and retention of night-time amenity. It is not anticipated that special constraints apply to the Site beyond incorporating good practice measures and thoughtful design into strategies for new lighting to control obtrusive effects such as light spill, sky glow and glare.

Stakeholder views

Table 5: Site 1 Stakeholder views summary

Stakeholder	Response
Nottinghamshire County Council	*Minerals:* Entirety of the site falls within the MSA/MCA for surface coal. It is recommended that the Coal Authority is contacted, which is based in Mansfield, to discuss the constraints associated with this site and its potential future development. *Transport*: The likely impact on the A38 corridor is a significant concern and the applicant is likely to be required to contribute financially to schemes to upgrade the A38 to dual carriageway i.e. where it is not already this standard. *Nature Conservation*: the site contains a number of Local Wildlife Sites, hedgerows and woodlands, which would need to be retained (as part of the open space provision) and brought into favourable management.
The Coal Authority	Development High Risk Area - the site is located in an area of likely historic unrecorded coal mine workings at shallow depth. Therefore, any formal development proposed for this site will need to be supported by a Coal Mining Risk Assessment, or equivalent report, which considers the risks posed to the safety and stability of the development form past coal mining activity.
Derbyshire County Council	This site is likely to be of interest to the County Council in terms of the likely highways impacts of the new settlement. The County Council would wish to be consulted further on the proposals the site if they are progressed further through the Local Plan process, particularly if more information and supporting evidence becomes available on the highways and transport implications of the proposals.
NHS Derby and Derbyshire Clinical Commissioning Group	The Village Surgery has two sites, one in South Normanton and one at Pinxton, the Pinxton site being the closest to this proposed development, both buildings had a six facet survey in summer 2019 and were found to be fully utilised, we would therefore seek a contribution towards increasing clinical capacity.
Historic England	Assets to consider would include Pinxton Castle Motte and the fortified manor Scheduled Monument to the west of the site within Bolsover District Council's administrative area. Also, Brookhill Hall GII and its associated GII stable block to the west of the site, and any impacts on the Conservation Area and listed buildings in Kirkby There is one non-designated feature, the disused Great Central Railway (London extension) line, which lies in part within the site. There are changes in topography within the site which could cause impacts on significance of surrounding heritage assets. Notwithstanding the assets in this area we would welcome the opportunity to discuss the site further in due course should heritage impact information become available as this is likely to inform any potential for development at the site.
Severn Trent	Whilst there are a number of WwTW Catchments available there are also environmental limitations of receiving watercourses that would restrict the ability of these WwTW to be upgraded to accept and discharge more flow. This is likely to result in longer lead in times being needed to enable suitable capacity to be provided, or indeed could limit the size of development that can feasibly be connected to the WwTW catchment. The site is indicated to have a watercourse on the northern boundary and in close proximity to the southern boundary of the site, we would therefore recommend that a masterplan is developed requiring a site wider Drainage strategy in accordance with the drainage hierarchy such that surface water discharge to watercourse is utilised over a discharge to the sewerage networks.
Natural England	The site is within the 5km buffer of the Sherwood Forest Possible Potential Special Protection Area. Natural England advise that your authority adopt a precautionary approach which ensures that all reasonable and proportionate steps have been taken in order to avoid or minimise, as far as possible, any potential adverse effects from development on the breeding populations of nightjar and woodlark. Green Infrastructure should be fully integrated throughout the sites and Biodiversity Net Gain assessments should be carried out.
Forestry Commission	The site has an area of ancient woodland within and adjacent to its boundaries called The Dumbles. To determine the viability any developer will need to account for a mitigation plan which will include a buffer zone or if forming part of greenspace, the cost of additional woodland.

3.3 Capacity assessment

Figure 7 identifies spatially the constraints that affect the site and limit the amount of developable land. The gross developable area has been estimated using GIS software and then subject to further refinement to identify an indicative development capacity for the site, as outlined in **Table 6**. The calculation for both sites has applied a gross-to-net ratio of 60% (i.e. 60% is developable for residential use), and then a 35 dwelling per hectare multiplier on the net developable area to calculate overall capacity.

The constraints that have been taken into account in arriving at the developable area and site capacity for Site 1 are as follows:

- The presence of adjacent Ancient Woodland and designations of Nature Conservation Areas and Mature Landscape Areas in the Adopted Local Plan.
- Unsuitable landscape areas identified by AECOM landscape specialists by virtue of harm to landscape character, a lack of containment and creating perceptions of sprawl. A landscape buffer is recommended in the far south-eastern corner and it would be desirable to retain the green corridor associated with The Dumbles within any new development.
- The presence of a below intermediate pressure ground gas main that reduces development capacity and overhead powerlines, that would need to be diverted or avoided.
- Avoiding harm to the setting of the locally listed Stonehills Farm. The design of any proposed development on the site should take into consideration the rural setting of Stonehills Farm and aim to preserve the farmstead, retain some of the rural setting of the farmstead and provide some screening through landscaping and planting.
- Land-take associated with the HS2 safeguarding area (affecting land at the south western corner of the site, south west of Parcel 1a).

Table 6: Site 1 developable area and capacity schedule

Site / parcel	Site Size (ha)	Net Developable Area (60% gross-to-net)	Dwellings (35 dph)
1a	36.33	21.798	763
1b	8.62	5.172	181
1c	13.59	8.154	285
1d	2.95	1.77	62
1e	5.33	3.198	112
1f	1.77	1.062	37
1g	8.13	4.878	171
Site 1 total	**76.72**	**46.032**	**1611**

.

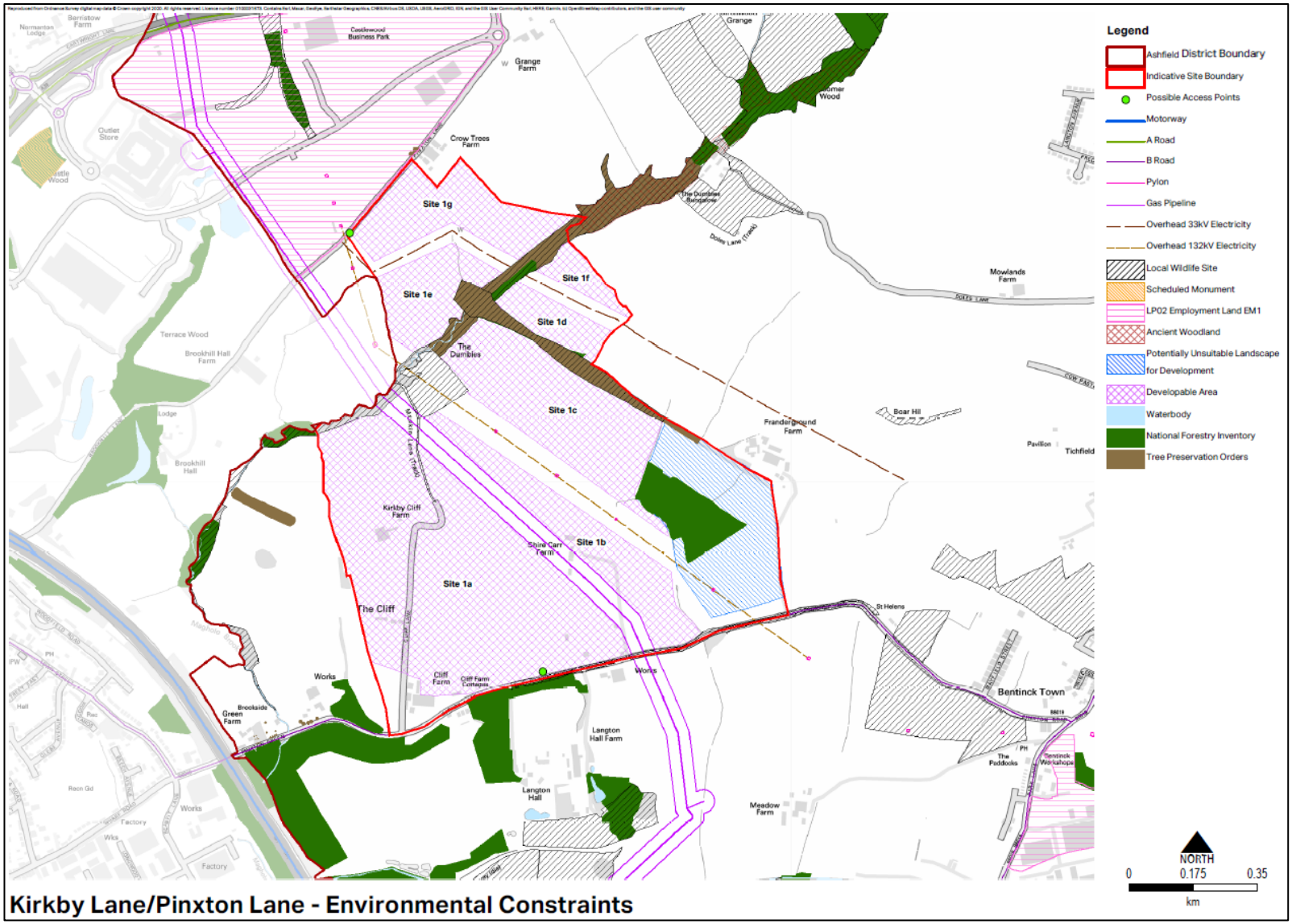


Figure 7: Site 1 Constraints and developable area map

3.4 Deliverability and implementation assessment

Based on the preceding capacity assessment there is approximately 46 hectares net developable area (the revenue-earning proportion of the site i.e. land developed for housing or commercial buildings). This is based upon a gross site area of approximately 76 hectares. The viability modelling builds in a 60:40 net to gross ratio, meaning at least 40% of the site would be required for formal and informal open space, sustainable urban drainage systems, community facilities and strategic on site infrastructure etc. Applying a density of between 35 to 40 dwellings per hectare would generate approximately 1,600 new dwellings (see **Table 7**).

Table 7: Site 1 capacity assumptions

		Gross	Net	Units
Site 1	Kirkby/ Pinxton Ln	76.72	46.03	1,611

Land ownership constraints

The PPG[34] requires all sites to be assessed for their availability. This should consider whether there are legal or ownership impediments to development e.g. unresolved multiple ownerships, ransom strips tenancies or operational requirements of landowners, which may affect the availability of the site. There are no ransom strips affecting site 1. However, access from the north would be more challenging without northern parcels being made available for development.

Figure 8 shows the landownership boundaries alongside the sites submitted to Ashfield District Council through the preparation of the Strategic Housing and Economic Land Availability Assessment. Site 1 includes multiple landowners (individuals and companies) which may make site assembly more challenging.

Table 8 (Site 1 land ownership schedule) summarises the main information held in the Land Registry title deeds for each parcel of land. This reveals that a number of the sites include rights over neighbouring land and/or restrictive covenants. These factors would need to be explored in consultation with the landowners should the land be taken forward as a housing allocation and is required for the delivery of strategic infrastructure (such as access or on-site reinforcements).

This highlights that the availability of the northern parcels of land are currently unknown. The northern parcels of land are in close proximity to extant employment land allocations and commercial developments. Areas to the north of the site have previously been identified as land potentially required for the construction for HS2[35]. These factors should be kept under review should the site be taken forward as a housing allocation in the Local Plan.

[34] Paragraph: 021 Reference ID: 3-021-20190722 Revision date: 22 07 2019. Accessed at: https://www.gov.uk/guidance/housing-and-economic-land-availability-assessment#method--stage-4-assessment-review
[35] See Hucknall to Selston map (p30). Accessed at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/746990/HS2_Phase_2b_WDES_Volume_2_LA08_Pinxton_to_Newton_and_Huthwaite_map_book.pdf

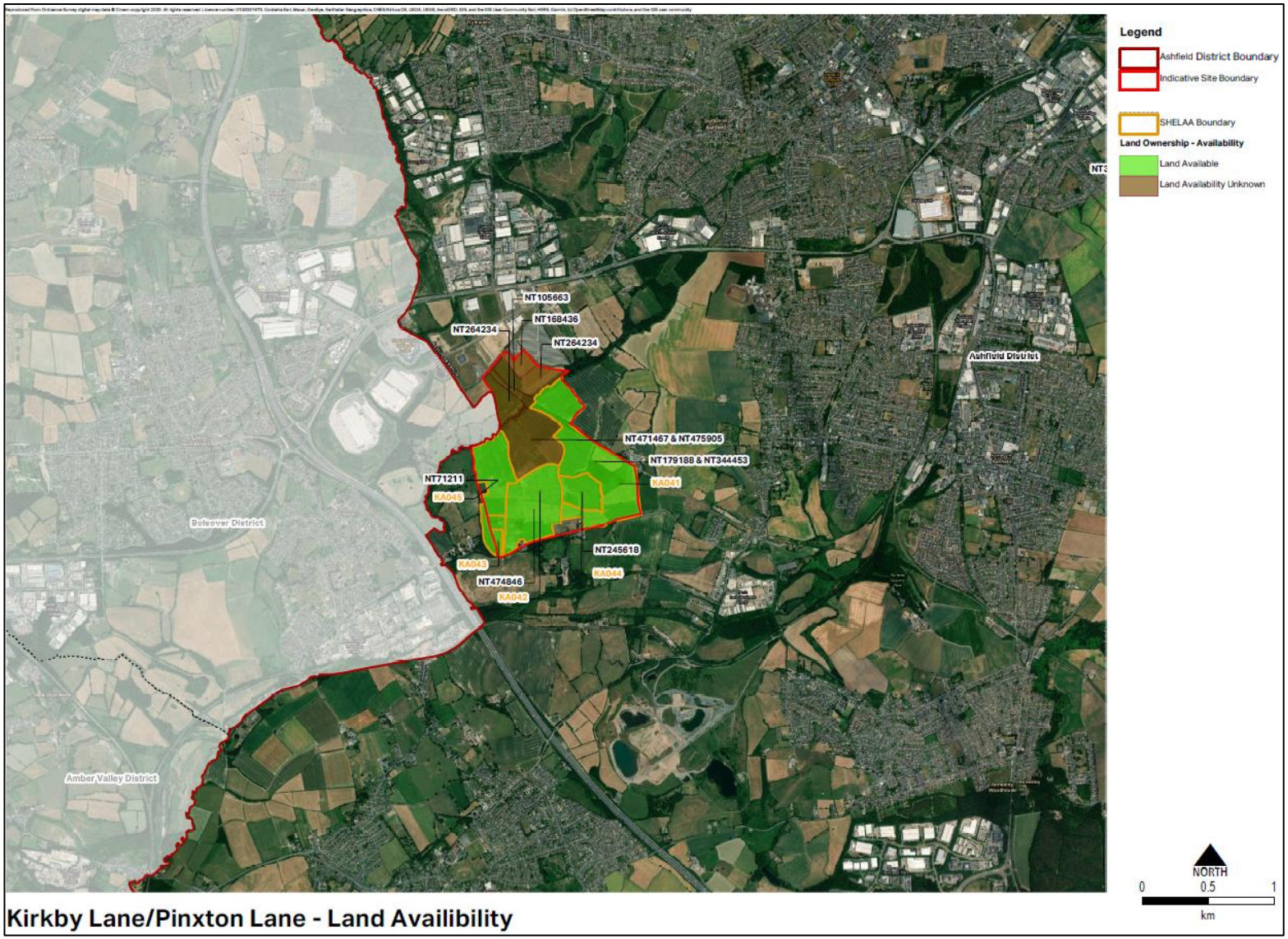


Figure 8: Site 1 Land ownership and availability

Table 8: Site 1 land ownership schedule

Title No	SHELAA Call for Sites reference	Owner	Price Paid £	Freehold/ Leasehold	Mortgage – Yes/No	Public Rights of Way	Rights over adjoining land e.g. easements	General boundary information issues	Deliverability issues e.g. ransom strips, protective covenants, numerous landowners etc.
NT71211	KA045	Individual(s) A	The value as at 25 November 2016 was stated to be between £200,001 and £500,000	Freehold	No	Yes	No	No	3 owners – no disposition by a sole proprietor of the land in return for capital money except under order of the court.
NT105663	N/A	Individual(s) B	16,500	Freehold	No	No	No - although British Railways Board holds some rights to access the land.	No	2 owners - no disposition by a sole proprietor of the land in return for capital money except under order of the court. British Railway Board have a number of rights on the land.
NT168436	N/A	Individual(s) B	Unknown	Freehold	No	No	Yes, easements to the land adjacent.	No	2 owners - no disposition by a sole proprietor of the land in return for capital money except under order of the court. Covenant states that no noxious or offensive trade should be carried out on the land and no wine, beer or spirits sold. The land is subject to a deed with restrictive covenants (not included in this document)
NT179188	KA041	Individual(s) C	Unknown	Freehold	No	No	No	No	2 restrictive covenants on boundary fencing, restrictions on types of use/ trade that would be allowed (such as fried fish shop, tripe boiler or rag or fat merchant or any noisy noxious or offensive trade, no wine, beer or spirts sold at any time on the land or any building be used as a club. No operations involving the boring, storing, treating, converting or refining petroleum. The land is subject to a deed with restrictive covenants (not included in this document)

Title No	SHELAA Call for Sites reference	Owner	Price Paid £	Freehold/ Leasehold	Mortgage – Yes/No	Public Rights of Way	Rights over adjoining land e.g. easements	General boundary information issues	Deliverability issues e.g. ransom strips, protective covenants, numerous landowners etc.
NT344453	KA041	Individual(s) C	Unknown	Freehold	No	No	No	Boundary map is exactly the same as above (NT179188).	No
NT245618	KA044	Individual(s) D	420,000	Freehold	No	No	Yes, the land has a right of way.		The land is subject to 2 deeds, one of which contains restrictive covenants- (not included in this document)
NT264234	N/A	Individual(s) E	Unknown	Freehold	No	No	No	No	Land used to be in the same ownership as NT168436 and was transferred to the named owner with a requirement that sufficient fencing is maintained to the satisfaction of the transferor. There is a covenant stating that no noxious or offensive trade should be carried out and no wine, beer or spirits should be sold on the land. Some/all of the land is leased to Crow Trees Solar Farm.
NT471467	N/A	Bunting (Agri) Limited	165,000	Freehold	No	No	No	Exactly same boundary as land below (NT475905).	No disposition of the land without certificate signed by Individual F (or their representative/conveyancer) that the provisions of clause 12 of a transfer (2011) made between Individual F and Bunting (Agri) Limited have been complied with.,
NT475905	N/A	Bunting (Agri) Limited	165,000	Freehold	No	No	No	Exactly same boundary as land above (NT471467).	The British Gas Corporation have some rights on the land. No disposition of the land without certificate signed by Individual F (or their representative/conveyancer) that the provisions of clause 12 of a transfer (2011) made between Individual F and Bunting (Agri) Limited have been complied with.,
NT474846	KA042	Individual(s) E	800,000	Freehold	Yes	No	Yes – right of way on the adjoining land for access to the land from the main	No	No disposition of the land without certificate signed by Individual F (or their representative/conveyancer) that the provisions of the first schedule (referred to in the Charges

Title No	SHELAA Call for Sites reference	Owner	Price Paid £	Freehold/ Leasehold	Mortgage – Yes/No	Public Rights of Way	Rights over adjoining land e.g. easements	General boundary information issues	Deliverability issues e.g. ransom strips, protective covenants, numerous landowners etc.
							road at Pinxton Green and the right to use the sewer and drains of the adjoining property.		Register) have been complied with or without written consent signed by the proprietor for the time being of the Charge dated 9 June 2011 in favour of HSBC UK BANK PLC. The British Gas Corporation have some rights on the land.

Viability assessment

The table of results (**Table 10**) includes several appraisals for the site that show the residual land value per hectare (Ha) with varied levels of affordable housing (0% to 30%) and developer contributions (£0/unit to £40,000/unit). The residual land value is the (residual) sum of money available for the purchase of land, it is calculated by taking the total value of the completed development minus the total costs of development (including the developer's profit, construction costs, fees, interest etc.)

The Existing Use Value of site 1 is assumed to be £25,000/Ha (agricultural land value)[36]. The EUV 'plus' approach propounded by the PPG requires viability appraisals to build in a return to the landowner that would incentivise them to release their land for development. In this study we have assumed £250,000/ha as the 'plus' above the EUV (benchmark land value or threshold land value). The residual land value must equal or exceed the EUV 'plus' (£275,000/Ha) in order for the site to be considered viable. The EUV 'plus' assumed in the appraisal is low in comparison to the previous Whole Plan & Community Infrastructure Levy Viability Assessment (July 2016) which assumed £790,407 per Ha. New settlements require more upfront strategic infrastructure investment than a typical brownfield strategic or large site and this has been reflected in the assumptions of the appraisal.

The remediation and off-site services are treated as abnormal costs and the transport and social infrastructure costs as s106 costs. On this basis, the abnormal costs are estimated to be within a range of £7,500 - 10,000 per unit on each site (based on AECOM cost management specialist estimates)[37]. A summary of the abnormal costs and s106 assumptions are set out below.[38]

Table 9: Abnormal costs and s106 assumptions

Site 1. Kirkby Lane/Pinxton Lane

Abnormal Costs			
	Remediation	£3,231,730	
	Off-site services	£8,579,000	£11,810,730
S106			
	Transport	£11,212,500	
	Social Infrastructure	£25,685,781	£36,898,281
Total			£48,709,011
	£/unit		£30,235

The market survey revealed low house values in the study area compared to the wider region. The values for new homes in Ashfield were approximately £2,200-2,300/m^2 (see **Appendix DD**). An assumption of £2,300/m2 is applied in the appraisals. Construction costs have been based on the Building Cost Information Service administered by the Royal Institution of Chartered Surveyors (RICS). The BCIS lower quartile and median costs for housing in Ashfield in July 2020 were used in the appraisals[39]. Dependent on the mix, the approximate costs were £1,266/m2. The housing mix was informed by the 2015 Strategic Housing Market Assessment. The recommended mix has been altered to reduce 1 bed flats in the affordable sector and increase the numbers of larger market units. A Red, Amber, Green (RAG) assessment is used to display the viability results:

- **Green** Viable – where the Residual Value per hectare exceeds the BLV per hectare (being the EUV plus the appropriate uplift to provide a landowners' premium).
- **Amber** Marginal – where the Residual Value per hectare exceeds the EUV but not the BLV per hectare. These sites should not be considered as viable when measured against the test set out – however, depending on the nature of the site and the owner, they may come forward.
- **Red** Non-viable – where the Residual Value does not exceed the EUV.

[36] See – Appendix D, Viability Appraisal, paragraph 5.8 Land value estimates for policy appraisal (MHCLG, 2019). Accessed at: https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2019
[37] All cost and value estimates are based on the best available information at the time the report was written. Where a range is provided this reflects that these inputs are changeable and will be subject to more detailed investigations.
[38] The costs in Table 9 informed the viability modelling undertaken on the site (see Appendix D) and were informed by further engagement with stakeholders, ADC and AECOM masterplanners. The costings provided in the accompanying Technical Proformas preceded these refinements and are different in some respects e.g. overhead powerline undergrounding excluded.
[39] BCIS costs for flats, terraces, semi and detached are utilised to arrive at an average (see summary sheets in Appendix D).

Table 10: Viability Appraisal Results - Site 1

Policy Requirements, with abnormals, varied developer contributions. BCIS median

	Aff %		EUV	BLV	Residual Value								
		Developer Contribution			£0	£5,000	£10,000	£15,000	£20,000	£25,000	£30,000	£35,000	£40,000
Site 1	0%	Kirkby/ Pinxton Ln	25,000	275,000	27,844	-46,241	-124,408	-207,750	-302,571	-414,286	-526,002	-637,718	-749,434
Site 1	5%	Kirkby/ Pinxton Ln	25,000	275,000	7,149	-68,824	-148,091	-234,248	-337,265	-448,981	-560,697	-672,412	-784,128
Site 1	10%	Kirkby/ Pinxton Ln	25,000	275,000	-14,471	-91,534	-172,807	-262,643	-372,207	-483,923	-595,639	-707,355	-819,071
Site 1	15%	Kirkby/ Pinxton Ln	25,000	275,000	-36,680	-114,756	-198,374	-295,532	-407,247	-518,963	-630,679	-742,395	-854,111
Site 1	20%	Kirkby/ Pinxton Ln	25,000	275,000	-59,510	-138,700	-225,182	-330,630	-442,345	-554,061	-665,777	-777,493	-889,209
Site 1	25%	Kirkby/ Pinxton Ln	25,000	275,000	-82,332	-163,605	-254,667	-365,702	-477,418	-589,134	-700,850	-812,565	-924,281
Site 1	30%	Kirkby/ Pinxton Ln	25,000	275,000	-105,457	-189,388	-288,990	-400,706	-512,421	-624,137	-735,853	-847,569	-959,285

Policy Requirements, no abnormals, varied developer contributions. BCIS median

	Aff %		EUV	BLV	Residual Value								
		Developer Contribution			£0	£5,000	£10,000	£15,000	£20,000	£25,000	£30,000	£35,000	£40,000
Site 1	0%	Kirkby/ Pinxton Ln	25,000	275,000	130,022	61,060	-10,815	-87,686	-168,025	-255,852	-362,198	-473,914	-585,629
Site 1	5%	Kirkby/ Pinxton Ln	25,000	275,000	109,954	40,364	-32,618	-110,294	-193,007	-285,574	-396,892	-508,608	-620,324
Site 1	10%	Kirkby/ Pinxton Ln	25,000	275,000	89,772	19,552	-55,328	-134,114	-219,277	-320,119	-431,834	-543,550	-655,266
Site 1	15%	Kirkby/ Pinxton Ln	25,000	275,000	69,514	-1,540	-78,125	-158,428	-246,881	-355,159	-466,875	-578,590	-690,306
Site 1	20%	Kirkby/ Pinxton Ln	25,000	275,000	48,977	-23,493	-100,955	-183,687	-278,541	-390,257	-501,972	-613,688	-725,404
Site 1	25%	Kirkby/ Pinxton Ln	25,000	275,000	28,062	-46,127	-124,839	-210,318	-313,613	-425,329	-537,045	-648,761	-760,477
Site 1	30%	Kirkby/ Pinxton Ln	25,000	275,000	7,191	-68,901	-149,202	-238,719	-348,617	-460,333	-572,049	-683,764	-795,480

Policy Requirements, with abnormals, varied developer contributions. BCIS lower quartile

	Aff %		EUV	BLV	Residual Value								
		Developer Contribution			£0	£5,000	£10,000	£15,000	£20,000	£25,000	£30,000	£35,000	£40,000
Site 1	0%	Kirkby/ Pinxton Ln	25,000	275,000	268,362	201,381	133,232	64,320	-7,333	-84,069	-164,069	-251,465	-356,994
Site 1	5%	Kirkby/ Pinxton Ln	25,000	275,000	245,646	178,665	109,976	40,387	-32,593	-110,268	-192,979	-285,540	-396,856
Site 1	10%	Kirkby/ Pinxton Ln	25,000	275,000	222,695	155,394	86,482	16,151	-59,035	-137,984	-223,540	-325,452	-437,168
Site 1	15%	Kirkby/ Pinxton Ln	25,000	275,000	199,703	131,857	62,946	-8,665	-85,527	-166,524	-256,214	-365,807	-477,523
Site 1	20%	Kirkby/ Pinxton Ln	25,000	275,000	176,637	108,244	38,750	-34,453	-112,541	-196,355	-294,580	-406,295	-518,011

Site 1	25%	Kirkby/ Pinxton Ln	25,000	275,000	153,603	84,691	14,452	-60,963	-140,326	-227,820	-334,958	-446,673	-558,389
Site 1	30%	Kirkby/ Pinxton Ln	25,000	275,000	130,090	61,178	-10,423	-87,427	-169,464	-263,554	-375,270	-486,986	-598,702

Policy Requirements, no abnormals, varied developer contributions. BCIS lower quartile

	Aff %		**EUV**	**BLV**	**Residual Value**								
		Developer Contribution			**£0**	**£5,000**	**£10,000**	**£15,000**	**£20,000**	**£25,000**	**£30,000**	**£35,000**	**£40,000**
Site 1	0%	Kirkby/ Pinxton Ln	25,000	275,000	365,415	299,593	232,612	165,363	96,451	26,355	-47,864	-126,102	-209,617
Site 1	5%	Kirkby/ Pinxton Ln	25,000	275,000	343,063	276,877	209,896	142,107	73,196	2,339	-74,038	-153,535	-240,244
Site 1	10%	Kirkby/ Pinxton Ln	25,000	275,000	320,476	253,925	186,944	118,613	49,367	-23,084	-100,481	-182,592	-274,113
Site 1	15%	Kirkby/ Pinxton Ln	25,000	275,000	297,852	230,934	163,952	95,076	25,086	-49,321	-127,953	-212,910	-313,719
Site 1	20%	Kirkby/ Pinxton Ln	25,000	275,000	274,849	207,868	140,375	71,464	628	-75,898	-156,281	-245,148	-354,207
Site 1	25%	Kirkby/ Pinxton Ln	25,000	275,000	251,841	184,860	116,822	47,667	-24,867	-102,529	-185,745	-282,869	-394,585
Site 1	30%	Kirkby/ Pinxton Ln	25,000	275,000	228,873	161,892	93,309	23,411	-51,222	-130,267	-216,880	-323,181	-434,897

GARDEN TOWN PRINCIPLES. Policy Requirements, no abnormals, varied developer contributions. BCIS lower quartile

	Aff %		**EUV**	**BLV**	**Residual Value**								
		Developer Contribution			**£0**	**£5,000**	**£10,000**	**£15,000**	**£20,000**	**£25,000**	**£30,000**	**£35,000**	**£40,000**
Site 1	0%	Kirkby/ Pinxton Ln	25,000	275,000	500,969	435,562	370,154	304,061	237,080	169,704	100,792	30,733	-43,038
Site 1	5%	Kirkby/ Pinxton Ln	25,000	275,000	474,908	409,500	344,093	277,559	210,577	142,561	73,649	2,711	-73,591
Site 1	10%	Kirkby/ Pinxton Ln	25,000	275,000	448,522	383,114	317,707	250,729	183,747	115,084	45,615	-27,020	-104,519
Site 1	15%	Kirkby/ Pinxton Ln	25,000	275,000	422,138	356,730	290,880	223,898	156,518	87,606	17,264	-57,799	-136,586
Site 1	20%	Kirkby/ Pinxton Ln	25,000	275,000	395,672	330,265	263,967	196,986	128,956	60,044	-11,860	-88,823	-169,870
Site 1	25%	Kirkby/ Pinxton Ln	25,000	275,000	369,278	303,871	237,126	170,145	101,467	31,700	-42,116	-120,449	-204,713
Site 1	30%	Kirkby/ Pinxton Ln	25,000	275,000	342,924	277,307	210,326	142,931	74,019	3,380	-73,011	-153,189	-241,757

4. Site 2 – Cauldwell Road/Derby Road, Sutton in Ashfield

Figure 9: Site 2 location

4.1 Site overview

Cauldwell Road/Derby Road, Sutton in Ashfield (Site 2) is located to the east of Sutton in Ashfield towards the border with Mansfield District. It covers approximately 85 hectares in total and has an initial estimated capacity of 1,270 dwellings identified by Ashfield District Council officers (subject to further testing through this study).

The site is undulating but all still cultivatable for agriculture. The highest point of the site is immediately north of the northern boundary of the golf course, whilst the land falls away into a dip along the minor watercourses towards Cauldwell Dam. The parcel of land north west of Cauldwell Road is in a dip and highly visible from Hamilton Hill.

The existing development present within the site includes a cluster of agricultural buildings, known as Cauldwell Livery, in the north west of the site. The majority of the site is made up of a patchwork of agricultural fields, for arable and livestock grazing, which are well defined by hedgerows and treelines.

There are a number of land uses adjacent to the site. To the north west of the site along Cauldwell Road there is a small cluster of dwellings containing six dwellings and their curtilage.

To the east, the site boundary is adjacent to the A617 and beyond this Oakham Business Park which consists of light industrial uses, with over 20 different companies operating out of it. At Summit Park a substantial distribution unit has been constructed for Amazon.

Cauldwell Dam and Stonehill Plantation are located directly adjacent to the eastern boundary of the site, parts of Stonehill Plantation are potential areas of designation for Special Area of Conservation.

Bright Sparks Nursery School is adjacent to the south east corner of the site.

Immediately to the south east of the site across the A611 Derby Road is the permitted Two Oaks Quarry operated by Mansfield Sand that extracts silica sand and gravel. Permission for the quarry was granted in 2013 (reference: 4/2010/0178) to extract approximately 14.31 million tonnes of mineral over 40-50 years in four phases. The first phase starts at the east of the site adjacent to Thieves Wood.

Coxmoor Golf Course is directly south of the site and contains a varied and valued habitats, including Deciduous Woodland, Low Land Heathland, Woodland and Low Fens.

The Sherwood Observatory is located approximately 500m from the site to the south west along Coxmoor Road. The Observatory building was built by the founders of the society on a purely voluntary basis so that the society could have a place to meet and view the stars together. The building work was started in 1972 and was opened to the public in 1986.

Land uses which are not directly adjacent to the site largely consist of agricultural fields, with the nearest residential areas of Berry Hill approximately 2km to the east and Sutton in Ashfield approximately 1-2km to the north west. Sutton in Ashfield is one of Ashfield's main urban areas and has a large quantity of services and facilities. Similarly, Mansfield town centre is located approximately 3km north east from the site (as the crow flies), however, this falls outside Ashfield District Council's boundary.

The site is bounded by the A617 (Sherwood Way South) to the north, A611 (Derby Road) to the east, Coxmoor Golf Club and B6139 (Coxmoor Road) to the south and west. Cauldwell Lane runs through the proposed site area and connects with the B6139 (Coxmoor Road) to the west. No through route is currently available towards the east, with Cauldwell Road terminating at the A617 approximately 1.8km from its junction with the B6139.

The A617 (Sherwood Way South) connects with the A38, A60, A614 and eventually the A46 (near Newark) providing strong links to Mansfield from the site. The A617 (Sherwood Way South) is a two-way single carriageway route (although in some places the route widens to provide two lanes, or more on the approach to junctions). The A38 provides a route to M1 Junction 28.

The A611 (Derby Road) runs along the eastern boundary of the proposed site. On the proposed site boundary, the A611 is a two-way single carriageway route. The A611 provides connection between the A60 in the north (to the south of Mansfield) and Bulwell to the south. The A611 also provides a route to M1 Junction 27. The A611 is currently subject to an optioneering assessment by NCC regarding improvements to junction capacity at key junctions along the route between its junction with the A60 and the A608.

The site is not currently located in an area well served by public transport. The nearest bus stop from the centre of the site is located on the A60 (Nottingham Road), this is located approximately 1.5km to the northeast of the site. An additional bus stop is located on the B6139 (Coxmoor Road) approximately 1.6km from the centre of the site.

The nearest railway station to the site is Sutton Parkway, which lies over 1-2km to the west of the centre of the site (as the crow flies). Sutton Parkway lies on the Robin Hood Line, which connects Nottingham to Worksop. The towns and villages served by the route are Nottingham, Bulwell, Hucknall, Newstead, Kirkby-in-Ashfield, Sutton in Ashfield, Mansfield, Mansfield Woodhouse, Shirebrook, Langwith, Nether Langwith and Whaley Thorns, Cresswell, Whitwell and Worksop.

4.2 Opportunities and constraints analysis

Strategic planning

The site contains and is in close proximity to a number of designations in the Adopted Local Plan (2002). Firstly, the whole of the site are is covered by Policy EV2 Countryside which states that permission will only be given for appropriate development. Development must be located and designated so as not to adversely affect the character of the countryside, in particular its openness.

Secondly, an area of the site is covered by Policy EV4: Mature Landscape Areas, which states that development which does not adversely affect the character and quality of mature landscape areas will be permitted. V4Rl ‘Coxmoor/ Kings Mill’ is Located in the north west section of the site which sticks out at an angle towards the west.

The third designation is EV6: Nature Conservation Site, for which the policy states that development which adversely impacts local nature reserves will only be permitted where provision is made within the development for the protection of features of nature conservation or geological significance or where the development cannot be located elsewhere. here is one nature conservation site, EV6/83 Cauldwell Dam and Drain which is a pond, marsh and drain with a noteworthy community. This is a narrow stretch which reaches through the centre of the site.

Lastly, adjacent to the site there is an area covered by Policy EM1 Employment Land Allocations, Ref. Re South West Oakham Business Park (and Summit Park) which provides 23.5 ha of employment land. At Summit Park a substantial distribution unit has been constructed for Amazon meaning that only a small area is left for development.

The majority of the site is located within a Minerals Safeguarding Area and Minerals Consultation Area for sand. The site is adjacent to an allocation for a quarry (Two Oaks Farm) within the emerging Nottinghamshire Minerals Local Plan, however the site is already consented for a phased extraction of sand over the next 40 years.

Economics

The Site benefits from its proximity to Sutton in Ashfield and Mansfield as well as its position on the A617, known as the Mansfield-Ashfield Regeneration Route (MARR), which has received continual extensions since its delivery in 2000. The A617 connects the site to nearby centres such as Chesterfield and Newark as well as to the M1 and the A614/A6097. The M1 accessibility is vital for many businesses in Ashfield, whilst the D2N2 SEP states that there are multiple planned improvements to the A614/A6097 corridor to relieve congestion and support economic growth[40]. The site is located just over 1-2km east of the Sutton Parkway train station and therefore, benefits from rail connectivity as well as road.

A series of residential care homes and multiple industrial parks around road junctions have meant means the immediate area surrounding the site as an employment density (1.31) considerably above the district and LEP averages (both 0.7).

There are economic assets in the neighbouring areas that can help support future employers on the site. These assets have focusses in the LEP’s priority sectors therefore, there is an opportunity for future businesses to connect with leading transport manufacturing, digital and innovation centres.

One concern is the lack of high-level occupations and skills shortage in the area to drive future growth. Collaboration with the nearby Vision West Nottinghamshire College, a major education asset, can help overcome

[40] D2N2 LEP, (2019); Strategic Economic Plan

this challenge and make the site more appealing to businesses. Further potential risks for employment include the lack of housing in the immediate vicinity reducing the local labour force. In addition, better connectivity to Sutton Parkway would be more attractive to a wider potential labour pool.

The assessment site is judged to be suitable for future economic development. The proximity to some existing assets is likely to create employment opportunities for future residents and business connections for future companies.

Access and movement

The site is located to the south of Mansfield and to the east of Sutton in Ashfield. No existing PRoW run through the site, and no facilities are currently accessible within the recommended 1km walking isochrone. Footways (and supportive infrastructure) would need to be constructed to account for desire lines towards Mansfield, Sutton in Ashfield, Berry Hill (and potentially Kirkby-in-Ashfield).

Mansfield, Sutton in Ashfield and Kirkby-in-Ashfield town centres are accessible within the recommended 5km cycling threshold. Existing cycle infrastructure is available on the A617 (to the north), the A611 (to the east) and on Kirkby Folly Road / Low Moor Road. With some upgrades (and extension to existing routes in places) these routes could provide good cycle access to key residential, retail and employment zones within the vicinity.

No buses currently operate along any of the routes bounding the site, and therefore it may be challenging to divert services into the site. No existing bus stops are within the recommended 800m walking distance. The site is however located approximately 2-3km of Sutton in Ashfield Railway Station, although infrastructure connecting the site to the station would need upgrading / extending.

At least two access points would be required to serve the 1,000 dwellings. Opportunities for access is available from the A617, Hamilton Road, A611 and the existing Cauldwell Road / Coxmoor Road junction. The site therefore benefits from several potential points of access (subject to design work). An additional road, Cauldwell Road, currently runs through the site's footprint.

Given the potential access points, trips would be dispersed onto the A38, A617 and A611. The A38 is a known congestion corridor between the M1 (Junction 28) and Mansfield, whilst the A611 is flagged in the Nottinghamshire LTP as suffering from journey time variability. It is likely that trips would disperse along multiple routes from this point however, diluting the overall impact.

Data shows a concentration of collisions at the B6139 (Coxmoor Road) / A611 (Derby Road) junction.

Ground conditions / geotechnical

The following potential on-site and off-site sources of contamination have been identified:

On-site sources:

- Made ground: potential for made ground based on current and historical land uses including;
- Current farmland;
- Potentially infilled sand pit (in the northern area); and
- Historical landfill (in the northern area).

Off-site sources:

- Made ground: potential for made ground based on current and historical land uses including;
- Mapped made ground adjacent to the north-west of the site;
- Current farms and farmland: adjacent and up to 250m from the site; and
- Historical and authorised landfills: 30m, 100m and 110m north-west of the site.

The Nottinghamshire Minerals Local Plan indicates that the southern area of the site and the surrounding area to the south is located in a Mineral Safeguarding Area (MSA) related to the Sherwood Sandstone (for sand resource).

There is considered to be a very low (in the south of the site) to moderate (in the north of the site associated with an area of landfill) potential for contamination to exist at the site, based on the information sources reviewed, and

given the nature of the current and historical land uses identified at the site. Potential on-site sources are limited but there may be made ground present which may not have originated from the site, as well as localised point sources associated with the site's agricultural use, potentially infilled sand pit and historical landfill use (in the north of the site).

Historical/authorised landfills and made ground (on-site and off-site) may pose a potential ground gas risk.

The bedrock geology is a Principal aquifer. Therefore, it is possible for shallow groundwater to be present. If shallow groundwater is encountered, it should be considered as part of any foundation solution. Site-specific groundwater levels would need to be confirmed during future ground investigations.

A ground investigation report should be produced for geo-environmental and geotechnical risk identification and interpretation. Following intrusive investigation and interpretation, proposed mitigation solutions can then be recommended.

Services / utilities location and capacity

There is an existing 9" Cast Iron potable water main in the southern verge / footway of Cauldwell Road, 450 mm dia Ductile Iron main runs along the north side of the A611, a main is identified in Hamilton Road, Two 12" mains (one Cast Iron, the other unconfirmed) are identified in Coxmoor Road. Protection or diversion work would be required. The size, number and location of existing potable water mains in the area means there are likely to be a number of options for the new connections. However, an assessment of the capacity of the existing network will be required by Severn Trent Water to confirm the extent of off-site reinforcement of the network.

It is likely there are foul sewers serving the surrounding built up areas, however, if there is insufficient capacity in the existing network to accommodate the new development then a new rising main, or gravity sewer, may be required between the site and the treatment works to the north.

Any works to form a new junction at the A611 and / or Hamilton Road will require diversion or protection of the existing 11kV lines, and possible protection of the 33kV lines. The layout of the site will dictate whether there are diversions required to the existing supply to the properties on Cauldwell Road. The presence of a significant number of existing power lines means there will be options for the supply to the site and the locations of substations. There is an existing substation on the corner of Hamilton Road and Coxmoor Road which may be a suitable point for supply to the new site.

Drainage

The site has drainage crossing it from the golf course. This could indicate the presence of private drainage systems that need to be maintained running though the site and will add additional incoming flow to the amount of storage on site. The site is in a Flood Zone 1 from river flooding however, there is a risk of localised surface water flooding at the Coxmoor Dam and a low spot opposite the access to Summit Park. The former may place additional constraints or considerations for any access direct from the A617 and development in this area.

In addition, preliminary levels from lidar shows Cauldwell Dam and brook to be the lowest section of the site, however there could be areas of the site that cannot be drained by gravity into Cauldwell pond, which would require separate drainage systems.

Historic environment

There are no designated heritage assets within the site boundary. There are, however, a number of non-designated archaeological assets listed on the Nottingham HER that fall within the Site boundary. In addition, Stonehills Farm, a locally listed farm, is located just outside the site boundary, to the south-east.

There is a single Scheduled Monument which lies 200m north-west of the Site boundary. This comprises the Mound on Hamilton Hill of unknown, but possibly prehistoric, date. The setting of the mound has changed to some extent due to modern development, including the construction of the A617 Mansfield-Ashfield Regeneration Route (MARR) and the construction of an industrial estate to its west and north. The Scheduled Monument sits on a hill overlooking its surroundings. Modern development has eroded its rural setting and it appears disconnected from its surroundings, despite its prominent position within the landscape. However, should the mound prove to be prehistoric, its setting would also include the prehistoric archaeological landscape and the associated prehistoric assets located within the northern portion of the Site.

There is a locally listed asset, Stonehills Farm, located just outside the boundary of the site, to the south-east. The farm has a rural setting that includes part of the Site.

Development of the site will introduce a change to the setting of the scheduled monument at Hamilton Hill and to the setting of Stonehills Farm. These changes are likely to have an adverse impact on the significance of these assets.

There is a risk of Historic England or the Conservation Officer objecting to the development of the site if there is harm to the assets.

It is proposed that a Heritage Statement be completed in support an application for development of the site. This Heritage Statement will take special consideration of the potential effects of the proposed development on the setting of the historic buildings and the scheduled remains of the Mound on Hamilton Hill as well as its impacts on the potential archaeological resource.

Landscape

Visually, the sloping and undulating nature of the site means that there are views available across and from it, including views to the surrounding landscape from the ridgelines on Coxmoor Road and Derby Road and from the undulating land on Cauldwell Road.

The tree belts along Cauldwell Road and along Cauldwell Brook form green corridors in the site, the former linking to Stonehills Plantation in the site's north-eastern corner. The heathy character of the area offers planting opportunities to strengthen this character, and the local coal-mining heritage also give potential for design cues in the new development.

The site is potentially suitable on landscape grounds although two landscape buffers are recommended within the site boundary, one in the north, and the second on the eastern edge. The northern buffer is recommended in order to prevent perceptions of sprawl at the ridgeline on Coxmoor Road, as well as preventing perceived sprawl of Mansfield south of the ring road. The eastern buffer would contain sprawl into the rural land to the east, as well as retaining the heathy character of this area.

Social infrastructure

On site nursery provision would be required to mitigate the development, catering for a maximum of 57 children. There is a significant deficit in total primary school place capacity across the existing schools therefore, off site provision of a 1FE school would be required. In terms of secondary school places, there is some capacity in across the outer impact area and off-site provision has the potential to mitigate the secondary school impact, with a 1.5FE school.

There are localised capacity issues for individual GP practices, however at an area wide scale there is a deficit in capacity, therefore there is a requirement for two GPs and two dentists. Occupancy data for hospitals underpins a relatively significant capacity of spare beds albeit Sherwood Hospitals NHS Foundation Trust has significantly more overall capacity than Nottinghamshire Healthcare NHS Foundation Trust, particularly of general acute hospital beds, however the development would generate the need for 7 additional hospital beds. It would be likely that an onsite bespoke solution be explored to cater for additional elderly care needs from the development; provision could take the form of Extra Care housing to the scale of 40 units which would need to form part of the proposed housing mix.

Given the close catchment standards for community and library facilities it would be expected that some form of multipurpose community facility including the ability to host library services be located on the development Site. There is a need for 197 sqm of community space and 84 sqm of library space. In terms of indoor sport requirements, a need for 0.2 of sports halls and 0.1 of swimming pools would be generated from development at the site. In addition, 3.4 hectares of outdoor sport space is required.

Light impact assessment

The Site has a more mixed character, having a more natural setting to the south and an increasingly suburban setting to the north. This typically describes a location that is consistent with a lighting environmental zone E1 / E2.

Currently, the closest receptors are expected to be residential properties or ecological species which might utilise the local area for commuting / foraging / breeding purposes. With the mature landscape nearby and decreased

instances of lighting, there is a higher potential for light sensitive species to be found within local woods or surrounding fields. This includes the increased likelihood for the presence of bat species and will be best informed by environmental survey.

Sherwood Observatory is a unique receptor which is expected to need additional consideration. Operated by the Mansfield & Sutton Astronomical Society (MSA), the observatory houses a 24-inch Newtonian Reflecting Telescope in its dome. As this is an optical telescope, its use can be significantly affected by light. They are planned to expand to include a new planetarium on the land next door to the existing observatory and dome. The planetarium is planned to have viewing platforms with smaller optical telescopes that can be used by visitors. Lighting character for Sherwood Observatory is better considered for what will support their requirements rather than they currently experience. Optical telescopes are sensitive to light and work best without artificial light. New or changed lighting should target limiting effects as much as possible to lower brightness characteristics consistent with environmental zones E0 / E1.

Some initial beneficial lighting approaches have been identified that would improve the use of optical telescopes, including following recommendations made by the International Dark Sky Association. This would look at design approaches that consider:

- Use of full cut-off lighting in all areas;
- Not angling or directing lighting above the horizontal, especially in the direction of the Observatory;
- Less variance in the types of exterior light where there are many peaks across the spectrum of visible light; and
- Increase community awareness / support of the Observatory and what they can share.

Stakeholder views

Table 11: Site 2 Stakeholder views summary

Stakeholder	Response
Nottinghamshire County Council	*Minerals:* The site lies immediately North-West of the permitted Two Oaks Quarry operated by Mansfield Sand that extracts silica sand and gravel. The Western area of site 2, which borders Derby Road, is opposite the planned phase 3 extraction area which is anticipated to be worked approximately in 2040. At this proximity, it is likely that there would be some environmental impacts detectable at site 2, for example noise and dust, from the extraction works. There is then potential that development within the Eastern end of site 2, close to Derby Road could sterilise the permitted mineral resource and the operation of the quarry as a whole. If site 2 is to be progressed further within the emerging Ashfield Local Plan as a potential allocation for a new settlement, the County Council would seek to be involved within this process and discuss further the detail of this site and potential mitigations that could be put in place along the eastern edge of the proposed site to prevent the mineral and the quarry operation itself being sterilised. *General Transport Observations:* The site does not appear to be well connected to the existing urban areas in terms of public transport corridors and sustainable travel modes. Satisfactorily integrating these communities will present a considerable challenge. The choice of sustainable sites should ideally be informed by detailed land-use -transport planning and the need to establish locations which minimise travel distances and concentrate development in locations where travel choices allow for maximum use of public transport facilities. Although this site is 'better' located with respect to the Major Road Network especially the A617 Sherwood Way (MARR), A611 and A38 these routes are heavily congested and there are on-going studies by the County Council, supported by the Local Planning Authorities of Mansfield and Ashfield, into possible strategic highway infrastructure improvements in the medium term (beyond 5 years' time). The County Council is considering the case for widening the A617 MARR, for example, to a four lane carriageway. This widening would potentially impact directly upon Site 2 along its entire frontage. The access arrangements to serve Site 2 would need to be carefully considered in view of likely engineering and alignment constraints of forming junctions and the need to provide satisfactory separation from existing junctions on the MRN. The likely impact on the A38 corridor is again a significant concern and the applicant is likely to be required to contribute financially to schemes to upgrade the A38 to dual carriageway. *Nature Conservation*: Whilst this site is also predominantly farmland (arable and pasture) under intensive management, it is located in a more ecologically-sensitive setting. In particular, Stonehills Plantation, which abuts the eastern site boundary, is a site where Nightjar (and potentially Woodlark) have, and may still breed, and is also adjacent to woodland slightly further east which forms part of the 'Indicative Core Area' of the prospective Sherwood SPA. There would be issues surrounding recreational disturbance, predation by pets, indirect impacts during construction etc. The site covers the upper reaches of the Cauldwell Brook, which is one of the most important watercourses in the county for White-clawed Crayfish (a Section 41, LBAP and legally protected species). Potential issues would involve impacts on water quality during construction and occupation.

Historic England	Development of the site shown on the information provided would result in substantial harm to the significance of the Scheduled Monument. Regardless of whether one applies the tests in respect of substantial harm, the NPPF requires that all harm to designated heritage assets requires clear and convincing justification and must be set against public benefits with great weight afforded to the conservation of the asset's significance. In this case development of the site would be harmful to the significance of the monument through the transformation of the agrarian character of a large part of the fields around the hill to that of residential and/or commercial development. That impact is exacerbated by the formal relationship of the hilltop monument to these parts of the land around it (which have thus far escaped the impacts of modern road construction and commercial development). We do not believe that this is an appropriate location for development and consider that our concerns are unlikely to be resolved through further work (notwithstanding what would be necessary in terms of understanding direct archaeological impacts).
Natural England	The site is partially within the catchment for both Rainworth Lakes SSSI and Rainworth Heaths SSSI, it has triggered each site's Impact Risk Zone. Therefore, any polluted surface water generated from the development of the site will need to be treated on site in line with CIRIA's SuDS manual before being discharged in a managed way. Baseline tests, ongoing maintenance and monitoring may also be required. CIRIA's suds manual sets out best practice for SuDS design and understanding what is likely to be generated should inform all subsequent design decisions. This site is immediately adjacent to an Important Bird Area (IBA), identified by the RSPB, which forms part of the Sherwood Forest ppSPA, separated only by the A611 Derby Road. Sherwood Forest ppSPA provides habitat for two internationally important bird species; woodlark and nightjar. Natural England advise that due to the proximity of the proposed site to habitats identified as supporting breeding populations of Woodlark and Nightjar a "shadow" HRA would be required to assess whether or not the proposal would have a likely significant effect on the integrity of the site.
Mansfield District Council	There is a physical separation between the districts currently and this would need to remain. The site is in close proximity to the Mansfield Ashfield Regeneration Route (MARR). Any development in this area would need to have consideration to the potential impact on this road and others within the area. Further information on this would be provided by Nottinghamshire County Council. In addition, it is worth pointing out that a Joint Mansfield / Ashfield Transport Study has been undertaken and reference to this should be made when considering the suitability of this site. There are several ecological and green infrastructure issues that need to be considered, including the possible Potential Special Protection Area (ppSPA) for breeding bird (Nightjar and Woodlark) interest. Alongside the importance of protecting the natural environment, an allocation on this site would provide the opportunity to provide links to existing provision in the area e.g. golf
Severn Trent	The site is indicated to be intersected by a watercourse, we would therefore advise that any development at this location is required to drain in accordance with the Drainage Hierarchy to a Watercourse and that this should be incorporated into a masterplan for this site, to ensure that a site wide drainage strategy conforming to this principle is developed. The site is indicated to be located within a Source Protection Zone (SPZ) level 3 as such there may be scope for infiltration drainage techniques to be used for surface water. However, development will also need to consider the risk of pollution and ensure that any proposals look to protect both surface and groundwater resources.
Sherwood Observatory	The existing optical telescope and planned smaller telescopes for the planetarium will be affected by existing lighting in the wider area, with current images recording the impairing effects from Mansfield at an approximate 3 mile distance to the north both for observation using the human eye and photographic filtration. The location of Site 2 is much closer in relation to the existing Observatory and future Planetarium that control measures are advised for new lighting installed as part of new development. Good design will need to be carefully considered within public realm areas or for statutory installations. It would also be worth exploring developing guidance for private lighting installations which would support darker skies. Strict full-cut-off lighting is recommended which reduces the distribution of light above the horizontal. It is likely that a cut-off further limited to below the horizontal will prove to have an increased benefit in control of exterior lighting.

4.3 Capacity assessment

Figure 10 overleaf identifies spatially the constraints that affect the site and limit the amount of developable land. The gross developable area has been estimated using GIS software and then subject to further refinement to identify an indicative development capacity for the site.

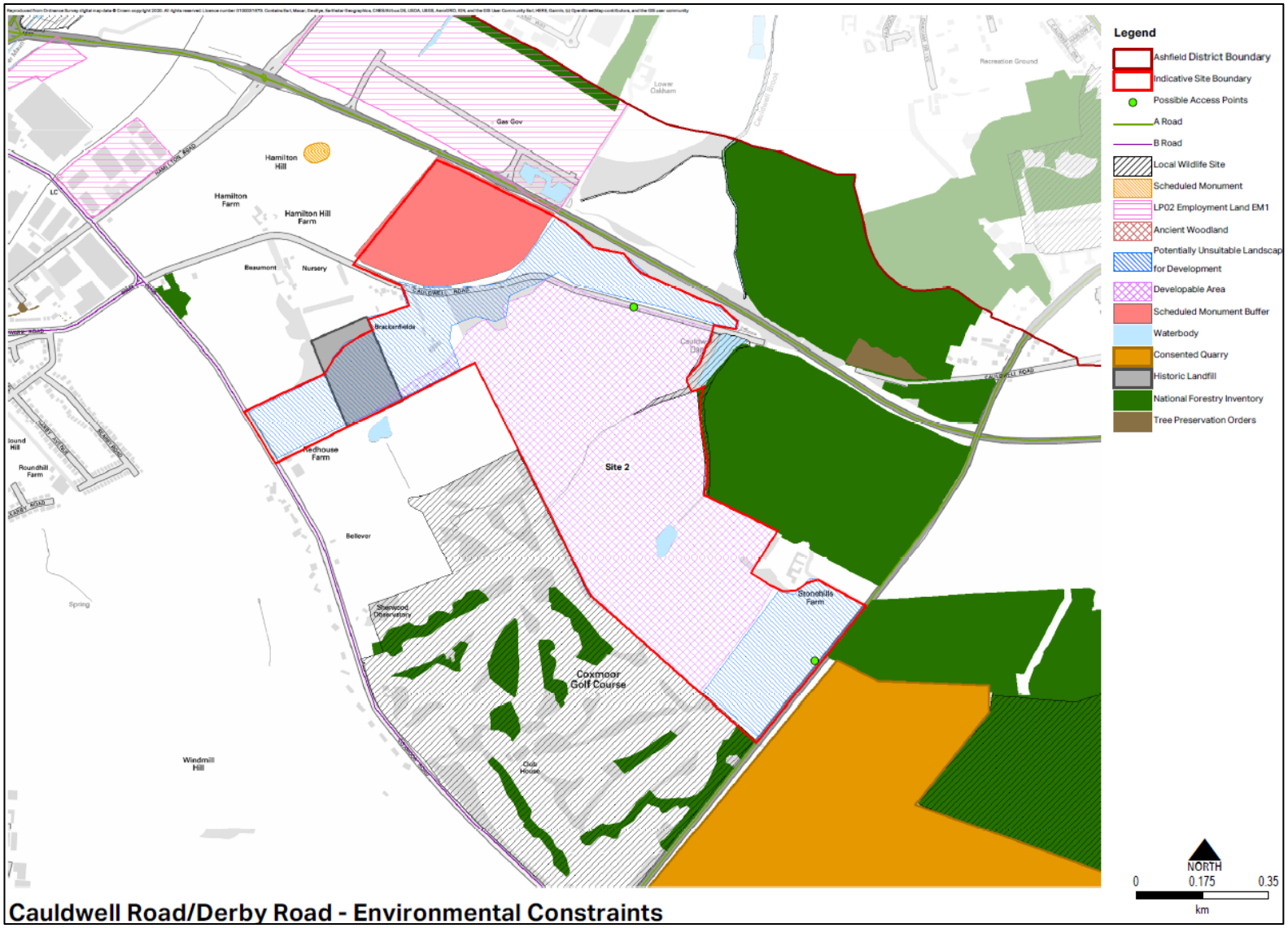


Figure 10: Site 2 Constraints and developable area map

The constraints that have been taken into account in arriving at the developable area and site capacity for Site 2 are as follows:

- Avoiding harming the setting of the Hamilton Hill Scheduled Monument to the north west of the site, as evidenced and objected to by Historic England. This requires avoiding development north of Cauldwell Road where there are open views of Hamilton Hill and utilising the screening vegetation along Cauldwell Road to limit intervisibility with the site further to the south.
- Potentially Unsuitable Landscape for Development i.e. areas identified by AECOM landscape specialists by virtue of harm to landscape character/existing sensitivity, a lack of containment and/or creating perceptions of sprawl.
- A buffer zone from the consented quarry to the south east (also avoiding part of the Minerals Safeguarding Area and Minerals Consultation Area)
- Avoiding disturbance of the historic landfill at Sutton Quarry within the west of the site.

4.4 Deliverability and implementation assessment

Based on the preceding capacity assessment there is approximately 28 hectares net developable area (the revenue-earning proportion of the site i.e. land developed for housing or commercial buildings). This is based upon a gross site area of approximately 47 hectares. The viability modelling builds in a 60:40 net to gross ratio, meaning at least 40% of the site would be required for formal and informal open space, sustainable urban drainage systems, community facilities and strategic on site infrastructure etc. Applying a density of between 35 to 40 dwellings per hectare would generate approximately 1,000 new dwellings (see Table 12).

Table 12: Site 2 capacity assumptions

		Gross	Net	Units
Site 2	Cauldwell/ Derby Rd	47.32	28.40	994

Land ownership constraints

The PPG requires all sites to be assessed for their availability. This should consider whether there are legal or ownership impediments to development e.g. unresolved multiple ownerships, ransom strips tenancies or operational requirements of landowners, which may affect the availability of the site. There are no ransom strips affecting site 2 with the main access points expected to be delivered in the north and south of the site. However, land to the west of the site area (NT313981) would be required for a western access.

Figure 11 shows the landownership boundaries alongside the sites submitted to Ashfield District Council through the preparation of the Strategic Housing and Economic Land Availability Assessment. Site 2 includes one large landowner which may assist with site assembly.

Table 13 (Site 2 land ownership schedule) summarises the main information held in the Land Registry title deeds for each parcel of land. This reveals that a number of the sites include rights over neighbouring land and/or restrictive covenants. These factors would need to be explored in consultation with the landowners should the land be taken forward as a housing allocation and is required for the delivery of strategic infrastructure (such as access or on-site reinforcements).

Figure 11: Site 2 land availability

Table 13: Site 2 land ownership schedule

Title No	SHELAA Call for Sites Ref	Owner	Price Paid £	Freehold/ Leasehold	Mortgage – Yes/No	Public Rights of Way	Rights over adjoining land e.g. easements	General boundary information issues	Deliverability issues e.g. ransom strips, protective covenants, numerous landowners etc.
NT72903	N/A	Individual(s) A	288,000	Freehold	No	No	No	No	No
NT74093	SA075	Midland Land Reclamation Limited	Unknown	Freehold	No	No	Yes – access to the site is allowed from Cauldwell Road	Yes- the boundary of this register does not match the boundary for this land submitted in the SHELAA.	No
NT196720	SA076	Campfield Farms Limited	1,291,490	Freehold	Yes	No	Yes – access to the site is allowed from Cauldwell Road from the land adjacent to Cauldwell Dam.	No	Restriction on the disposition of the estate without agreement from The Agricultural Mortgage Corporation PLC (and Barclays Bank PLC or their conveyancer that the provisions of para 8 schedule 1 of an Agreement dated 28 April 2017 made between 1) Sherwood Developments Limited 2) Ballco Limited and 3) Campfield Farms Limited have been complied with.
NT531742	SA076	Campfield Farms Limited	383,239	Freehold	Yes	No	No, the conveyance does not include any right of way or easement for the benefit of the land conveyed or any part of land retained by the vendor.	No	Restriction on the disposition of the estate without agreement from The Agricultural Mortgage Corporation PLC and Barclays Bank PLC or their conveyancer that the provisions of para 8 schedule 2 of an Agreement dated 28 April 2017 made between 1) Sherwood Developments Limited 2) Ballco Limited and 3) Campfield Farms Limited have been complied with.
NT313981	N/A	Individual(s) B	Unknown	Freehold	No	No	Yes – easements agreements with adjoining land.	No	No

Viability assessment

The table of results (overleaf) includes several appraisals for the site that show the residual land value per hectare (Ha) with varied levels of affordable housing (0% to 30%) and developer contributions (£0/unit to £40,000/unit). The residual land value is the (residual) sum of money available for the purchase of land, it is calculated by taking the total value of the completed development minus the total costs of development (including the developer's profit, construction costs, fees, interest etc.)

The Existing Use Value of site 2 is assumed to be £25,000/Ha (agricultural land value)[41]. The EUV 'plus' approach propounded by the PPG requires viability appraisals to build in a return to the landowner that would incentivise them to release their land for development. In this study we have assumed £250,000/ha as the 'plus' above the EUV (benchmark land value or threshold land value). The residual land value must equal or exceed the EUV 'plus' (£275,000/Ha) in order for the site to be considered viable. The EUV 'plus' assumed in the appraisal is low in comparison to the previous Whole Plan & Community Infrastructure Levy Viability Assessment (July 2016) which assumed £790,407 per Ha. New settlements require more upfront strategic infrastructure investment than a typical brownfield strategic or large site and this has been reflected in the assumptions of the appraisal.

The remediation and off-site services are treated as abnormal costs and the transport and social infrastructure costs as s106 costs. On this basis, the abnormal costs are estimated to be within a range of £7,500 - 10,000 per unit on each site (based on AECOM cost management specialist estimates)[42]. A summary of the abnormal costs and s106 assumptions are set out below[43].

Table 14: Site 2 Abnormal costs and s106 assumptions

Site 2. Cauldwell Road/Derby Road

Abnormal Costs			
	Remediation	£2,613,490	
	Off-site services	£4,946,150	£7,559,640
S106			
	Transport	£9,005,700	
	Social Infrastructure	£16,738,511	£25,744,211
Total			£33,303,851
	£/unit		£33,505

The market survey revealed low house values in the study area compared to the wider region. The values for new homes in Ashfield are approximately £2,200-2,300/m2 (see **Appendix D**). An assumption of £2,300/m2 is applied in the appraisals. Construction costs have been based on the Building Cost Information Service administered by the Royal Institution of Chartered Surveyors (RICS). The BCIS lower quartile and median costs for housing in Ashfield in July 2020 were used in the appraisals[44]. Dependent on the mix, the approximate costs were £1,266/m2. The housing mix has been informed by the 2015 Strategic Housing Market Assessment. The recommended mix has been altered to reduce 1 bed flats in the affordable sector and increase the numbers of larger market units. A Red, Amber, Green (RAG) assessment is used to display the viability results:

- **Green** Viable – where the Residual Value per hectare exceeds the BLV per hectare (being the EUV plus the appropriate uplift to provide a landowners' premium).
- **Amber** Marginal – where the Residual Value per hectare exceeds the EUV but not the BLV per hectare. These sites should not be considered as viable when measured against the test set out – however, depending on the nature of the site and the owner, they may come forward.
- **Red** Non-viable – where the Residual Value does not exceed the EUV.

[41] See – Appendix D, Viability Appraisal, paragraph 5.8 & Land value estimates for policy appraisal (MHCLG, 2019). Accessed at: https://www.gov.uk/government/publications/land-value-estimates-for-policy-appraisal-2019
[42] All cost and value estimates are based on the best available information at the time the report was written. Where a range is provided this reflects that these inputs are changeable and will be subject to more detailed investigations.
[43] The costs in Table 14 informed the viability modelling undertaken on the site (see Appendix D) and were informed by further engagement with stakeholders, ADC and AECOM masterplanners. The costings provided in the accompanying Technical Proformas preceded these refinements and are different in some respects e.g. 1 No signalised junction excluded.
[44] BCIS costs for flats, terraces, semi and detached are utilised to arrive at an average (see summary sheets in Appendix D).

Table 15: Viability Appraisal Results - Site 2

Policy Requirements, with abnormals, varied developer contributions. BCIS median

	Aff %		EUV	BLV	Residual Value								
		Developer Contribution			£0	£5,000	£10,000	£15,000	£20,000	£25,000	£30,000	£35,000	£40,000
Site 2	0%	Cauldwell/ Derby Rd	25,000	275,000	45,003	-35,270	-120,584	-209,639	-309,091	-420,847	-532,602	-644,358	-756,114
Site 2	5%	Cauldwell/ Derby Rd	25,000	275,000	22,109	-59,964	-146,317	-237,534	-343,418	-455,173	-566,929	-678,685	-790,440
Site 2	10%	Cauldwell/ Derby Rd	25,000	275,000	-2,123	-86,144	-173,863	-268,464	-379,161	-490,917	-602,673	-714,428	-826,184
Site 2	15%	Cauldwell/ Derby Rd	25,000	275,000	-26,105	-111,157	-200,338	-301,673	-413,429	-525,184	-636,940	-748,696	-860,451
Site 2	20%	Cauldwell/ Derby Rd	25,000	275,000	-51,523	-137,892	-229,627	-337,154	-448,909	-560,665	-672,421	-784,176	-895,932
Site 2	25%	Cauldwell/ Derby Rd	25,000	275,000	-76,931	-164,639	-260,509	-371,981	-483,737	-595,492	-707,248	-819,004	-930,759
Site 2	30%	Cauldwell/ Derby Rd	25,000	275,000	-103,007	-192,533	-295,818	-407,573	-519,329	-631,085	-742,840	-854,596	-966,351

Policy Requirements, no abnormals, varied developer contributions. BCIS median

	Aff %		EUV	BLV	Residual Value								
		Developer Contribution			£0	£5,000	£10,000	£15,000	£20,000	£25,000	£30,000	£35,000	£40,000
Site 2	0%	Cauldwell/ Derby Rd	25,000	275,000	160,696	85,002	7,450	-75,943	-162,903	-255,141	-362,616	-474,372	-586,127
Site 2	5%	Cauldwell/ Derby Rd	25,000	275,000	138,543	62,849	-16,424	-100,998	-189,276	-285,580	-396,943	-508,698	-620,454
Site 2	10%	Cauldwell/ Derby Rd	25,000	275,000	115,397	39,040	-41,526	-127,177	-217,585	-320,931	-432,686	-544,442	-656,197
Site 2	15%	Cauldwell/ Derby Rd	25,000	275,000	93,281	16,184	-66,516	-153,457	-246,379	-355,198	-466,954	-578,709	-690,465
Site 2	20%	Cauldwell/ Derby Rd	25,000	275,000	70,258	-8,209	-92,556	-180,851	-278,923	-390,679	-502,434	-614,190	-725,946
Site 2	25%	Cauldwell/ Derby Rd	25,000	275,000	47,577	-32,569	-117,965	-208,625	-313,750	-425,506	-537,262	-649,017	-760,773
Site 2	30%	Cauldwell/ Derby Rd	25,000	275,000	23,746	-58,366	-145,340	-239,056	-349,343	-461,098	-572,854	-684,609	-796,365

Policy Requirements, with abnormals, varied developer contributions. BCIS lower quartile

	Aff %		EUV	BLV	Residual Value								
		Developer Contribution			£0	£5,000	£10,000	£15,000	£20,000	£25,000	£30,000	£35,000	£40,000
Site 2	0%	Cauldwell/ Derby Rd	25,000	275,000	307,751	234,293	160,007	84,313	6,736	-76,723	-163,719	-256,048	-363,633
Site 2	5%	Cauldwell/ Derby Rd	25,000	275,000	282,604	209,146	134,229	58,496	-21,112	-105,880	-194,388	-291,589	-403,311
Site 2	10%	Cauldwell/ Derby Rd	25,000	275,000	256,562	183,104	107,525	30,886	-50,412	-136,455	-227,402	-332,553	-444,308
Site 2	15%	Cauldwell/ Derby Rd	25,000	275,000	231,457	157,486	81,791	4,253	-79,520	-167,072	-261,502	-372,161	-483,917
Site 2	20%	Cauldwell/ Derby Rd	25,000	275,000	205,791	131,163	55,468	-24,284	-109,297	-198,660	-300,759	-412,515	-524,270

Site 2	25%	Cauldwell/ Derby Rd	25,000	275,000	180,186	104,916	28,340	-53,309	-139,909	-232,464	-341,168	-452,924	-564,680
Site 2	30%	Cauldwell/ Derby Rd	25,000	275,000	154,088	78,393	744	-83,311	-171,456	-270,126	-381,881	-493,637	-605,392

Policy Requirements, no abnormals, varied developer contributions. BCIS lower quartile

	Aff %		**EUV**	**BLV**	**Residual Value**								
		Developer Contribution			**£0**	**£5,000**	**£10,000**	**£15,000**	**£20,000**	**£25,000**	**£30,000**	**£35,000**	**£40,000**
Site 2	0%	Cauldwell/ Derby Rd	25,000	275,000	417,802	346,026	272,569	199,111	123,753	47,591	-32,554	-117,757	-206,678
Site 2	5%	Cauldwell/ Derby Rd	25,000	275,000	393,071	320,879	247,422	173,670	97,976	20,942	-61,239	-147,652	-238,939
Site 2	10%	Cauldwell/ Derby Rd	25,000	275,000	367,473	294,837	221,379	146,966	71,272	-7,215	-91,446	-179,414	-274,952
Site 2	15%	Cauldwell/ Derby Rd	25,000	275,000	342,785	269,733	196,275	121,232	45,137	-35,129	-120,554	-210,691	-313,931
Site 2	20%	Cauldwell/ Derby Rd	25,000	275,000	317,525	244,067	170,603	94,909	17,919	-64,655	-151,641	-244,898	-354,284
Site 2	25%	Cauldwell/ Derby Rd	25,000	275,000	291,920	218,462	144,357	68,663	-9,886	-94,343	-182,868	-282,938	-394,693
Site 2	30%	Cauldwell/ Derby Rd	25,000	275,000	266,055	192,597	117,834	41,772	-38,670	-124,720	-216,152	-323,650	-435,406

GARDEN TOWN PRINCIPLES. Policy Requirements, no abnormals, varied developer contributions. BCIS lower quartile

	Aff %		**EUV**	**BLV**	**Residual Value**								
		Developer Contribution			**£0**	**£5,000**	**£10,000**	**£15,000**	**£20,000**	**£25,000**	**£30,000**	**£35,000**	**£40,000**
Site 2	0%	Cauldwell/ Derby Rd	25,000	275,000	567,113	495,463	423,812	351,742	278,284	204,827	129,353	53,276	-26,589
Site 2	5%	Cauldwell/ Derby Rd	25,000	275,000	538,187	466,537	394,887	322,308	248,851	174,861	99,167	22,065	-59,931
Site 2	10%	Cauldwell/ Derby Rd	25,000	275,000	508,507	436,856	365,206	292,094	218,636	143,867	68,173	-10,695	-94,992
Site 2	15%	Cauldwell/ Derby Rd	25,000	275,000	479,635	407,985	336,173	262,715	189,257	113,737	37,270	-43,399	-129,074
Site 2	20%	Cauldwell/ Derby Rd	25,000	275,000	450,498	378,848	306,505	233,047	158,994	83,300	5,793	-77,832	-165,166
Site 2	25%	Cauldwell/ Derby Rd	25,000	275,000	421,041	349,391	276,532	203,075	128,256	52,420	-27,487	-112,601	-201,981
Site 2	30%	Cauldwell/ Derby Rd	25,000	275,000	391,561	319,911	246,522	173,064	97,471	20,585	-61,752	-148,635	-241,696

5. Delivery and Implementation

This section considers practical delivery and implementation matters should ADC take forward the two sites for further testing through the plan making process. This includes consideration of urban design drivers (i.e. the principal constraints and opportunities identified in the preceding sections) preliminary concept plans for both sites based on the drivers identified in the preceding analysis of Sections 1-4.

5.1 Urban design drivers

The detailed suitability and viability work introduced in the preceding sections has been used by our design team and worked up into an urban design drivers map and concept diagram for each site. The concept diagram will set out the framework for place-making to create an attractive new community delivering high quality homes with good access to open space, community facilities and employment opportunities with a layout that encourages the uptake of sustainable transport modes.

The diagram shows indicative land-uses, high-level access and movement arrangements within the site, open space provision and green infrastructure connectivity to the wider landscape.

Site photos (geo-referenced) taken from the site visit (See Appendix A) has enabled the mapping of the viewpoints and identification of key receptors. Appendix A also includes the landscape appraisal and identifies where it is anticipated there would be harm to the landscape character.

Figure 12: Kirkby Lane design drivers

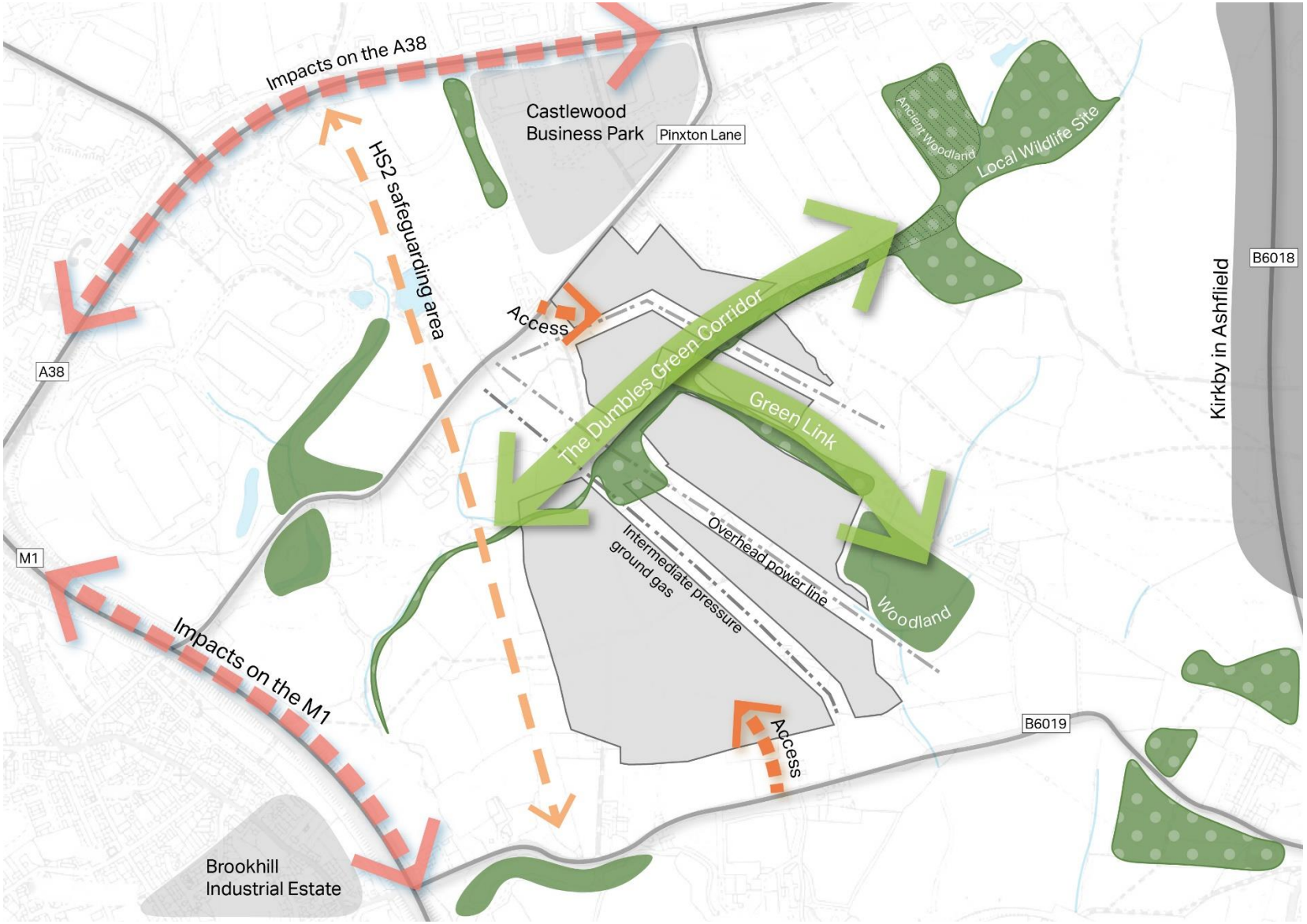
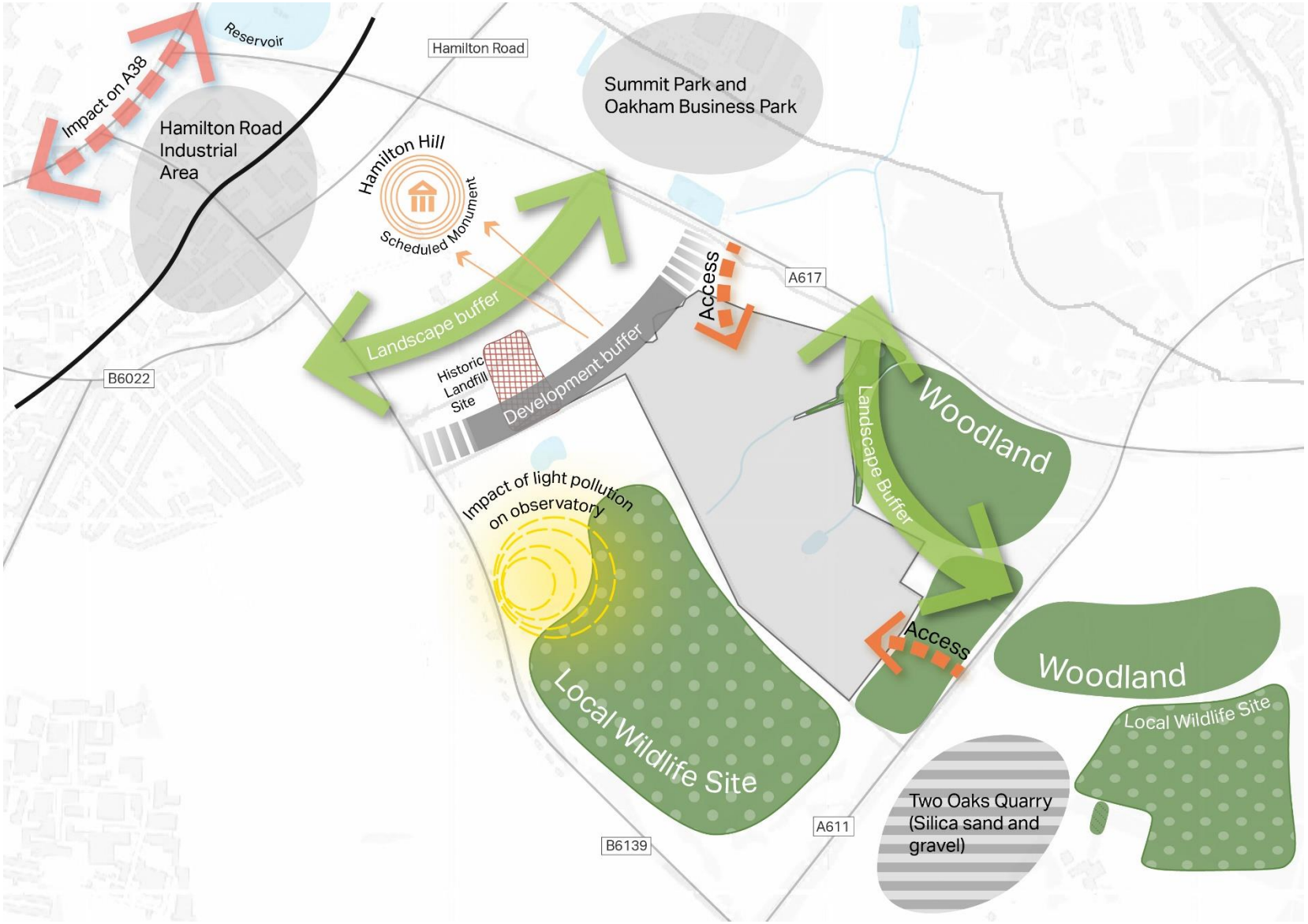


Figure 13: Caudwell Road design drivers



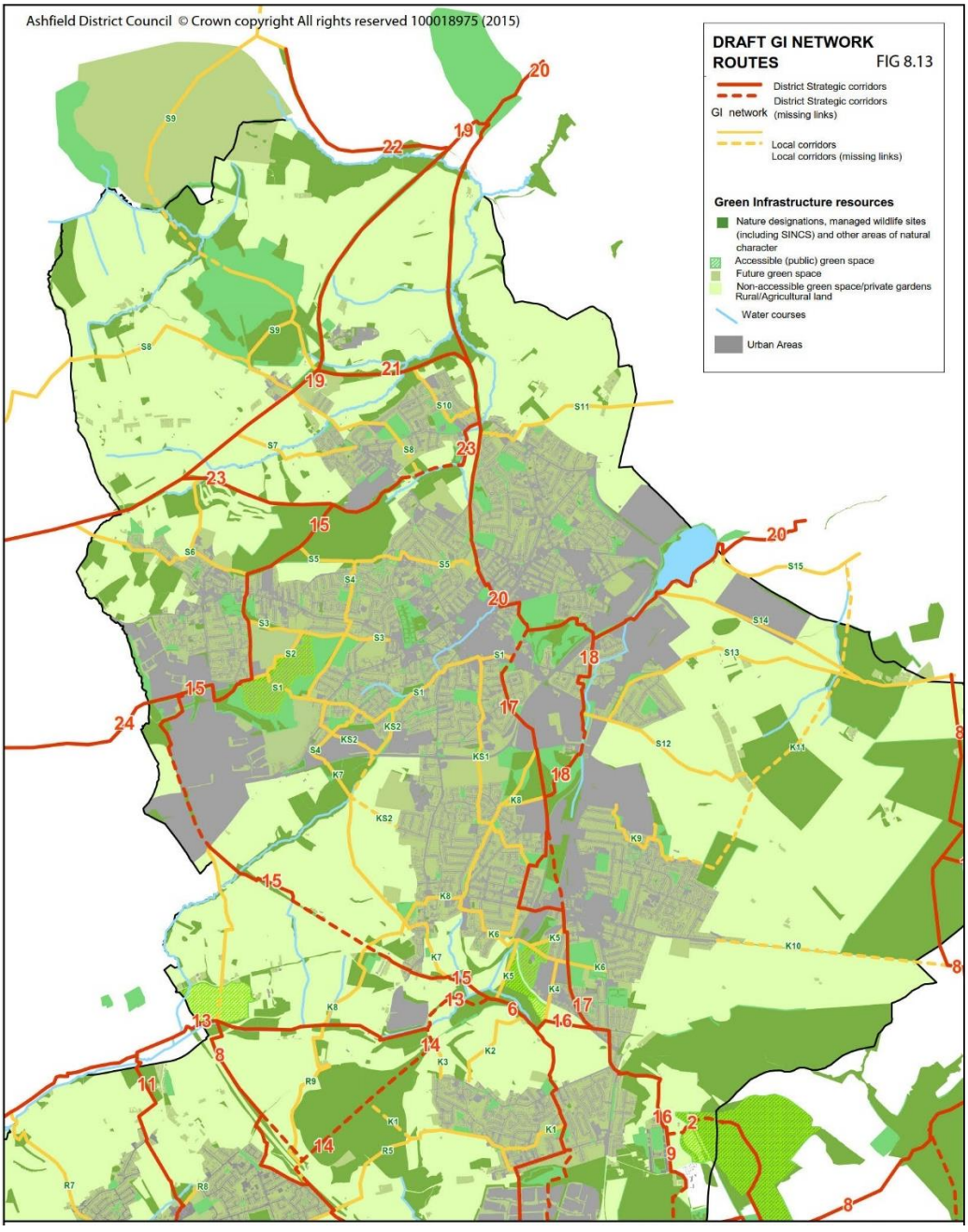
5.2 Wider green infrastructure network connections

The Green Infrastructure and Biodiversity Technical Paper (2013) includes a series of strategic and local Green Infrastructure corridors. This mapping includes an indication of missing links within the extant Green Infrastructure network (see **Figure 14**). The Green Infrastructure Framework identifies key corridors and networks of green spaces. The framework has been split into strategic corridors and local corridors. Strategic corridors connect key Green Infrastructure resources and/or run between settlements and across district boundaries. Local corridors connect smaller green spaces and/or link neighbourhoods to the strategic network.

There is scope, through site-wide masterplanning and on/off-site infrastructure improvements, to deliver increased connectivity (between the Strategic and Local Green Infrastructure Corridors identified in the Framework) and potential to increase access to new multifunctional open spaces delivered through both sites.

The open space and Green Infrastructure layout within the site should be optimised to allow corridors within the wider landscape to permeate through the site to allow connections with existing and new assets proposed in the preliminary concept plans (see 5.2).

Figure 14 Green Infrastructure network (ADC, 2013)



The extracts below (**Table 16**) and overleaf (**Table 17**) describe in greater detail the significance of these strategic and local corridors and the opportunities available for addressing those elements within and adjacent to the sites.

Table 16 Strategic Green Infrastructure Corridors

Strategic Corridors

GI-15: BRIERLEY FOREST PARK TO PORTLAND PARK

Connects Portland Park to the southwest of Kirkby and onward to the eastern edge of Sutton in Ashfield, following a former railway line.

Key GI resources: Portland Park, Kirkby Grives SSSI and Local Wildlife Site (LWS), Springfield Cottage Grassland (LWS), long stretches of disused railway (containing several LWSs), Nunn Brook, Rookery Park, Huthwaite Welfare Park and Cemetery, and Brierley Forest Park. The corridor passes through Kirkby Cross Conservation Area . It also links into the Blackwell Trail at Huthwaite (see GI-24)

Key physical barriers: inaccessible stretches of the former railway line to the west of Kirkby-in-Ashfield. Slight detour along roads and through an industrial estate between Rookery Park and Nunn Brook, including crossing Common Road – route not clear on the ground. The footpath system of Rookery Park has yet to be fully completed to the east, limiting direct links from Sutton in Ashfield.

Green gaps: Areas of lesser green value include stretches of the railway converted to agriculture.

Key opportunities: Major project opportunity to secure access to the disused railway line between Kirkby and Nunn Brook, Huthwaite. Smaller scale opportunity to improve visibility of trail links from Common Road and improve connections at this point.

GI-20: PLEASLEY- KINGSMILL RESERVOIR

Connects Pleasley with Skegby via the popular Teversal Trails and into the centre of Sutton in Ashfield, then onwards east into the south of Mansfield.

Key GI resources: the Teversal Trails (LWS), Teversal Pastures (SSSI), the Stoneyford Trail, Quarrydale Recreation Ground (including a disused quarry designated a LWS), Stoneyford Road Recreation Ground, Priestsic Road Recreation Ground, Sutton Lawn, the Maun Way (a section of disused railway adjacent to the A38), Kings Mill Reservoir, and the River Maun leading into Mansfield. The corridor incorporates sections of the Teversal Trails (leading to the Meden Trail) and the 'Lower Linear Route' through Sutton in Ashfield.

Key physical barriers: Although accessible, the route between Priestsic Road and Sutton lawn through the centre of Sutton is not clear on the ground. Some busy roads bisect the strong linear trail between Sutton and Pleasley.

Green gaps: Areas of lesser green value include the centre of Sutton, from the end of the Stoneyford Trail to Sutton Lawn, with limited private gardens space to help bridge the gap.

Key opportunities: A stronger link between the southern tip of the trail at Northern View/Priestsic Road and Sutton Lawn, potentially secured through development.

Table 17 Local Green Infrastructure Corridors

Local Corridors
KS2 Western Kirkby-Sutton link: A potential further link between the two towns, making use of the A38 bridge, which crosses to the industrial sites north of the A38 and also continuing as a green corridor north into the Calladine estate (secured through development). The bridge has poor connections to the south at present and any opportunity to link into the residents of west Kirkby would greatly increase its value.
K7 Laburnum Avenue – A38: Mainly rural footpaths which offer a link from the Conservation Area of Kirkby Cross, north towards Sutton in Ashfield.
K8 Titchfield Park – Kirkby Summit: A long corridor which provides access to key GI resources for residents in the west of Kirkby. The corridor includes a green link all the way from Kirkby Summit down to Chapel Street. The link from this point to Titchfield Park is via roads and has little green value. Opportunities to address this may be limited but would have a positive effect on this streetscape. The gateway to Titchfield Park also has scope for enhancement.
S4 Sutton meadows – Brierley Forest Park: A north-south corridor linking Brierley Forest Park to Rookery Park, via green housing estate links, and continuing south (mainly via roads) to Sutton Meadows. Limited green value around Alfreton Road.
S12 Maun Valley – Coxmoor Golf Course: A link east for residents around Kirkby Folly Road, and also the business parks of Penny Emma Way. Links to GI-18 and Sutton Parkway train station.
S13 Kirkby Folly Road – Cauldwell Wood: The creation of the MARR route rendered this road a dead end and provides potential for development as a green corridor connecting the east of Sutton with Cauldwell Wood and the Cauldwell Brook (and the south of Mansfield). Linear green space around Kirkby Folly Road provides a green finger into the built up area.
S14 Kingsmill – Cauldwell Wood: An existing link along the new MARR road connecting Kingsmill reservoir (and GI-20) to the east towards Cauldwell and Thieves Wood. Potential to enhance the ecological connections along this stretch and also enhance the green character for those travelling along it.

5.3 Site concept plans

The below high level site concept plans have been created by AECOM masterplanners reflecting the preceding constraints and opportunities. The concept plans respond to the principal urban design drivers and seek to utilise the Green Infrastructure network and landscape appraisal (Appendix A). The two concept plans identify key features, including defensible boundaries, natural features and areas of constraint. In addition, these plans demarcate key features in the landscape, and identify local and national constraints that will require a careful design response when detailed masterplanning takes place. Both concept plans identify potential development parcels that would make up the net developable area and indicate where possible local centres, schools, recreation space and access would be provided.

Figure 15: Kirkby Lane concept plan

Figure 16: Cauldwell Road concept plan

5.4 Viability considerations

The appraisal results (Appendix D) for Site 1 (~1,600 dwellings) and Site 2 (~1,000 dwellings) demonstrate that strategic scale development in Ashfield is likely to be challenging from a viability standpoint. The results show that the affordable housing targets and s106 planning obligations will need to be reduced (or potentially removed) in order to generate a sufficient land value to secure the sites for development.

Modelling for both sites that applies the BCIS median construction costs (it is normal practice to use the median costs in planning viability assessments) is unviable (even when discounting abnormal costs, assuming zero planning obligations and delivering 0% affordable housing). Applying the lower quartile BCIS costs improves the results somewhat for both sites. But only limited amounts of affordable housing and planning obligations may be possible.

Site 1 is shown as viable when using the BCIS lower quartile constructions costs, no abnormal costs, assuming 0-5% affordable housing level and £0 to £5,000/unit planning obligations.

Site 2 is shown as viable when using the BCIS lower quartile constructions costs, with abnormal costs, assuming 0-5% affordable housing level and zero planning obligations. When discounting abnormal costs, site 2 is shown as viable with: up to 25% affordable housing level (and zero planning obligations); or up to 10% affordable housing level (and £5,000/unit planning obligations).

An alternate set of appraisals applying 13% site costs[45], and an increase to sales values (+5%), broadly in line with Garden Town principles, has been included as an additional scenario for both sites. These do not make specific allowance for abnormal costs, but results were better overall but still generally unviable above planning obligations of £15,000/unit (below the required level of ~£30,000/unit). Whilst the adoption of the garden town approach would improve viability it would not obviate the abnormal costs and planning obligations identified as being necessary for these two sites to come forward.

Based on the high level viability modelling, Site 2 demonstrates the greater prospects of being a deliverable/developable site at this early stage in the plan making process. Site 1 contains a higher incidence of constraints (in comparison to site 2) that would require significant reinforcement/mitigation and resulting in an increase to costs. However, both sites were found to be unviable when applying BCIS median construction costs, abnormal costs and planning obligations likely to be required to bring forward the sites (approximately £30,000/unit). Neither site has very much scope to be enlarged and provide more housing based on our analysis of the constraints. In conclusion, neither site could bear the fully policy requirements for affordable housing and it's highly likely that both sites would require subsidy in order to be brought forward in their current format.

5.5 Estimated delivery timescales

Delivery rates, including lead-in times and build-out rates, should be considered carefully to ensure that any assumptions are realistic and backed by evidence. This will allow for a robust identification for how many dwellings the new settlement sites can deliver over the plan period.

Lead-in times

Lead-in times, the time taken during the planning process before completions are recorded, can vary significantly due to a number of factors including (but not limited to):

- the size and complexity of the site, including if it is in multiple of ownership;
- the degree of up-front work undertaken by the landowner(s) during the plan-making process;
- the level of detail in any site allocation policy;
- the time taken during Local Plan examination;
- the amount of work undertaken and discussion with the LPA at pre-application stage;
- whether the landowner is a housebuilder or the landowner needs to market and sell the site;
- whether a full, hybrid or outline permission is sought;

[45] See Appendix D Viability Appraisal (HDH Planning & Development Ltd 2020) Para. 9.14 to 9.18

- the number and complexity of pre-commencement planning conditions that need to be discharged;
- whether any S106 agreements prevent occupation before certain payments are made or infrastructure is delivered; and
- if significant "opening up" infrastructure works are required.

National research undertaken by Lichfields in their 2016 "*Start to Finish. How Quickly do Large-Scale Housing Sites Deliver?*" report[46] suggests that:

- sites of 500-999 dwellings have an average timescale of 5.3 years from validation to the first completion; and
- sites of 1,000-1,499 dwellings have an average timescale of 5.7 years from validation to first completions.

Updated figures in Lichfields Start to Finish 2 Report[47] suggests a 5 year period from validation to completion of the first dwelling for sites of 500-999 dwellings and a 6.9 year period for sites of 1,000-1,499 dwellings.

These average figures do not, however, factor in the time prior to validation though, i.e. site promotion, Local Plan consultations, examination and pre-application work; all of which takes additional time. In the first Start to Finish report Lichfields claim that "large sites" (which they define as 500 dwellings or more) take an additional 3.9 years during the pre-planning process before an application is validated. Including this results in full lead-in times from site promotion to first completion for sites of 500-999 and 1,000-1,499 dwellings of 9.2 and 9.6 years respectively.

Other, less recent research on lead-in times came to the following conclusions on lead-in times:

- The 2007 Calcutt Review of housebuilding delivery[48] suggests that on average for smaller schemes of 150 or more dwellings the pre-application process can take 25.1 months, then a further 17.2 months from validation to construction beginning (42.3 months or 3.5 years), albeit it should be noted that this is based on pre-recession data prior to the introduction of the NPPF.
- A Report Into the Delivery of Urban Extensions On Behalf of Gladman Developments Limited[49] (Hourigan Connolly, February 2014) recommends that an 8 year period should be allowed for from the preparation of an outline/in principle planning application to the delivery of homes.
- Urban Extensions. Assessment of Delivery Rates – Report to Barratt Homes[50] (Savills, October 2014) states that an urban extension site starts construction on the first phase of housing more than four years after the submission of an outline application.

In terms of local data within the Outer Nottingham Housing Market Area it is noted that in adjacent Mansfield District the Land at Berry Hill site (1,700 dwellings) on the southern edge of Mansfield bordering Ashfield District and in close proximity to the Cauldwell Road site took approximately 8.5 years from validation (11 Feb 2010) to the first completions in the 2018/19 monitoring year. The long planning approval period is likely partially due to the fact that the site was not allocated in the development plan which meant that detailed issues needed to be resolved during the planning approval period instead of being frontloaded through the plan-making process.

Build-out rates

A useful proxy to establish realistic average annual build-out rates is to consider the performance of the volume housebuilders (**Table 18**). Annual Reports for 2017-2019 illustrate average completions per site (market and affordable) of 47 units per annum per outlet within a range of between 34-102 units pa[51]. There are also well established norms for new build development e.g. average completions begin low and build up reflecting site-wide infrastructure and servicing being delivered. As a project matures and the landscaping and social infrastructure is completed rates will increase. It was notable that Countryside Properties achieved higher build out rates per outlet, their annual reports states that they seek to deliver high levels of affordable homes and private rented units, with private sales representing a little over a third of all sales.

[46] Available at: https://lichfields.uk/media/1728/start-to-finish.pdf
[47] Available at: https://lichfields.uk/media/5779/start-to-finish_what-factors-affect-the-build-out-rates-of-large-scale-housing-sites.pdf
[48] Available at: https://www.hbf.co.uk/policy/other-policies-new/callcutt-review-of-housebuilding-delivery/
[49] Available at: https://info.ambervalley.gov.uk/docarc/docviewer.aspx?docguid=2a7a7fa9904041b48dea86a7a11cdab6
[50] Available at: https://www.barrattdevelopments.co.uk/~/media/Files/B/Barratt-Developments/materials-and-downloads/savills-delivery-rates-urban-extensions-report.pdf
[51] Based on 2017 - 2019 House builder Annual Reports for Barratts, Berkeley, Persimmon, Taylor Wimpey, Bellway, Bovis, Crest Nicholson, Redrow, Countryside and Linden Homes.

There are several other aspects to deliverability. One aspect is the capacity for the market to absorb development. This has been given much attention recently though the Letwin Report and other notable research reports[52]. It is widely recognised that, regardless of the need for housing from population change, the market (developers) will only build and release housing when they know that they can develop it and then sell it at a price at which they can make a return (or profit) based on the priced they have paid for the land. In addition, a market saturated with similar schemes and products will be directly competing and push prices down acting as a disincentive for developers to build at pace. If large allocations are not able to provide policy compliant affordable housing, this exacerbates the market absorption risk.

There is potential for sites (normally larger sites) to see a number of outlets building new homes at any one time. Additional outlets are typically in the form of a different house builder, but it can also be in the form of different products sold from different marketing suites by the same house builder.

Table 18: Volume Housebuilders Average Completions per Outlet

	Annual Reports 2017			Annual Reports 2018			Annual Reports 2019			Annual Reports 2020		
House Builder	**Number of Completions**	**Number of Sites (Sales Outlets)**	**Average no. of Completions**	**Number of Completions**	**Number of Sites (Sales Outlets)**	**Average no. of Completions**	**Number of Completions**	**Number of Sites (Sales Outlets)**	**Average No. of Completions**	**Number of Completions**	**Number of Sites (Sales Outlets)**	**Average no. of Completions**
Barratt Developments	17,395	366	48	17,579	368	48	17,856	370	48	12,604	366	34
Persimmon Plc	16,043	370	43	16,449	360	46	15,855	350	45	13,575	300	45.25
Taylor Wimpey*	14,541	287	51	14,933	256	58	15,520	250	62	9,799	240	40.82
Bellway**	9,644	230	42	10,307	247	42	10,892	268	41	7,522	224	33.58
Bovis/Vistry Group^	3,645	92	40	3,759	87	43	3,867	128	30	6,131	179	34.25
Berkeley^^	3,905	58	67	3,536	62	57	3,698	69	54	3,158	70	45.11
Countryside	3,389	47	72	4,295	53	81	5,733	56	102	4,053	63	64.33
Crest Nicholson	2,935	51	58	3,020	55	55	2,912	59	49	2,247	63	35.66
Redrow	5,416	132	41	5,913	132	45	6,443	126	51	4,032	110	37
Linden Homes/ Galliford Try^^^	3,296	77	43	3,442	85	40	3,229	80	40	n/a	n/a	n/a
Total	**80,209**	**1,710**	**-**	**83,233**	**1,705**	**-**	**86,005**	**1,756**	**-**	**63,121**	**1,615**	**-**
Average	**-**	**-**	**50**	**-**	**-**	**51**	**-**	**-**	**52**	**-**	**-**	**39.08**

** 2020 annual report based on average number of outlets in 2020. Net private sales rate per outlet per week 0.76; and Private legal completions per outlet 31.5.*
***2020 annual report does not include total no. of active sites or outlets. Report refers to 224 sites in 2020 p44*
****Active outlets not stated. 0.58/week average = 30.16 dwellings per outlet per year (3867/30.21 = ~128 outlets)*
^2020 annual report p7 149 actives sites (housebuilding) and 30 mixed tenure sites (Partnerships). Weekly private sales rate per outlet up 15% to 0.62 [0.62 x 52 = ~32.24/outlet/year]
^^Outlets not stated, 70 live sites with 'implementable planning consent and are in construction' used as a proxy
^^^ Linden Homes and Galliford Try Partnerships acquired by Vistry Group January 2020

The data from volume housebuilders comes from activity across all of their sites, including sites smaller and larger than those being considered as new settlements in Ashfield. The Lichfields Start to Finish Report suggests that for greenfield sites of 500-999 dwellings there is an average annual build-out rate of 86 dwellings per annum (dpa) and for sites of 1,000-1,499 dwellings there is an average build-out rate of 122 dpa. This would equate to roughly two outlets for sites of 500-999 dwellings and three outlets for sites of 1,000-1,499 dwellings. However, Lichfields note that this average annual build-out rate figure is not sustained over the entire build period, there are "peaks" during the build period when there is an overlap of multiple outlets on phases, or where a particular phase might include a large number of affordable or apartment completions. Lichfields Start to Finish 2 (2019) suggests and average annual build rate of a scheme of 500-999 dwellings of being 68 dpa, and 107dpa for sites of 1,000-1,499 dwellings.

Other, less recent research on lead-in times came to the following conclusions:

- Factors Affecting Housing Build-out Rates (CLG/ University of Glasgow, February 2008)[53] states that, based on Imputed Annual Optimal Sales Rates (sample of 18 survey responses) most builders set a target between 40 and 80/outlet/year. An average sales rate of 59 dwellings per outlet per year is optimal on

[52] Planning and housing delivery (Savills, 2019) Accessed at: http://pdf.euro.savills.co.uk/uk/spotlight-on/planning-and-housing-delivery---2019.pdf
Independent review of build out: final report (Rt Hon Sir Oliver Letwin MP, October 2018) Accessed at: https://www.gov.uk/government/publications/independent-review-of-build-out-final-report
Start to Finish - How Quickly do Large-Scale Housing Sites Deliver? (Lichfields, November 2016) Accessed at: https://lichfields.uk/media/1728/start-to-finish.pdf
[53] Available at: https://www.gla.ac.uk/media/Media_718625_smxx.pdf

greenfield sites across all sizes of housebuilder; and 67/outlet/year on brownfield sites (with a greater number of apartments).

- Notes on Build out rates from Strategic Sites (Homes & Communities Agency, July 2013)[54]. A range of 150-300 dpa can be expected on smaller strategic sites (<4,000 units), with build out rates of 30/outlet/year in weaker markets and 40-50/outlet/year in stronger markets.
- A Report Into the Delivery of Urban Extensions On Behalf of Gladman Developments Limited[55] (Hourigan Connolly, February 2014) uses figures of 30-35 dwellings per outlet.
- Urban Extensions – Assessment of Delivery Rates – Report to Barratt Homes[56] (Savills, October 2014) states that an urban extensions can expect to be around 60dpa in the first year of construction and 100-120dpa in subsequent years.

It should be noted that the averages presented in the Lichfields report and other research are based on national research, and there can be significant variation from these figures at specific sites at the local level depending on the strength of the local housing market, housing demand, the housing mix and variety proposed on a site, if the site is greenfield or brownfield and how many access points there are.

Ashfield is within the Outer Nottingham Housing Market Area alongside Mansfield District Council and Newark and Sherwood District Council. To derive reasonable assumptions for build-out rates it is necessary to look at local monitoring data, five-year housing land supply statements and housing trajectories within the HMA to see what is typical or reasonable given local monitoring evidence in the area.

Ashfield District

There is no publicly available data that disaggregates annual completions into individual monitoring years for each individual site for Ashfield District. Without historic monitoring data showing annual completions for previous monitoring years only housing trajectory forecasts can be used to generate build-out rate assumptions, but these are forward looking estimates instead of recorded actual delivery rates on the ground. They are still useful to identify the benchmark assumptions used by the Council though.

The Ashfield Housing Land Monitoring Report 2020[57] includes a housing trajectory for only one site that is larger than 500 dwellings, Site H0265 Rolls Royce, Watnall Road. The site has consent and is being delivered in phases. The trajectory details for the relevant permissions (outline and full) are reproduced in **Table 19** below. The table shows that an average of 78 dwellings per annum is forecast during the period 2020/21 to 2026/27. Looking at the applicant for the full permissions there are two outlets currently active at the site – Persimmon and Harron Homes. With an average of 78 dpa and two outlets operating this would suggest an average of 36 dwellings per outlet per year.

Table 19: Ashfield housing trajectory for the Rolls-Royce site

Planning ref	Number of dwellings on site	Dwellings remaining at 1st April 2020	Year 1 20/21	Year 2 21/22	Year 3 22/23	Year 4 23/24	Year 5 24/25	Year 6 25/26	Year 7 26/27	Year 8 27/28	Year 9 28/29
V/2013/0123 (outline)	350	350	0	20	30	55	80	80	80	5	0
V/2014/0652 (full)	171	1	1	0	0	0	0	0	0	0	0
V/2015/0267 (full)	99	3	3	0	0	0	0	0	0	0	0
V/2016/0525 (full)	113	30	30	0	0	0	0	0	0	0	0
V/2018/0803 (full)	120	115	40	40	35	0	0	0	0	0	0
V/2019/0038 (full)	49	49	0	30	19	0	0	0	0	0	0

[54] Available at: https://uttlesford.moderngov.co.uk/Data/Planning%20Policy%20Working%20Group/201511261900/Agenda/Document%209.pdf
[55] Available at: https://info.ambervalley.gov.uk/docarc/docviewer.aspx?docguid=2a7a7fa9904041b48dea86a7a11cdab6
[56] Available at: https://www.barrattdevelopments.co.uk/~/media/Files/B/Barratt-Developments/materials-and-downloads/savills-delivery-rates-urban-extensions-report.pdf
[57] Available at: https://www.ashfield.gov.uk/media/8d85a56dbe9fec9/housing-land-monitoring-report-2020.pdf

Planning ref	Number of dwellings on site	Dwellings remaining at 1st April 2020	Year 1 20/21	Year 2 21/22	Year 3 22/23	Year 4 23/24	Year 5 24/25	Year 6 25/26	Year 7 26/27	Year 8 27/28	Year 9 28/29
Total	**902**	**548**	**74**	**90**	**84**	**55**	**80**	**80**	**80**	**5**	**0**

Source: Appendix 1 of the Ashfield Housing Land Monitoring Report 2020

Looking at the Housing Land Monitoring Report for other large sites (though below 500 dwellings) that span multiple monitoring years the Council is assuming around 35 dwellings per annum will be delivered on such sites.

Mansfield District

Like Ashfield District, Mansfield does not produce disaggregated historic completions data for individual sites, only publishing the data for the most recent monitoring year. Only forward-looking forecast figures are available.

The Mansfield Housing and Economic Land Availability Assessment (HELAA)[58] outlines the assumptions used by the Council in estimating build-out rates, based on stakeholder consultations and developer forums. The HELAA states:

> *The stakeholder consultations, including developers and land owners and a review of past delivery have informed the build rate assumptions for the HELAA housing trajectory. There was general agreement that developers are building at a rate of 2 – 2.5 dwellings per month, however there were some differentials between the site of size. The following general delivery rates have been assumed:*
>
> *Approximately 10 dpa for sites of < 15 dwellings*
>
> *Between 20 - 30 dpa for sites of > 15 dwellings*
>
> *On larger strategic sites it would be reasonable to expect two to three developers at any one point in time, each building approximately 30 dwellings, normally with gradual build up, aligned with infrastructure delivery.*
>
> *For the HELAA trajectory we have generally assumed a maximum of 60 dwellings per annum. In some instances a delivery of 90 dwellings per annum has been assumed.*
>
> *The total annual delivery on any one site will depend on the availability of other similar schemes and the ability of the market demand in Mansfield District at any point in time. This will need to be monitored as part of the Annual Monitoring Report and where relevant the trajectory will be adjusted."*

The recently adopted Mansfield Local Plan (September 2020) makes three strategic allocations of over 500 dwellings: SUE1 Pleasley Hill Farm (925 dwellings); SUE2 Land off Jubilee Way (800 dwellings) and SUE3 Land at Berry Hill (1,700 dwellings). The housing trajectory in the Local Plan is based on Examination Document H7 Updated Housing Trajectory and Five Year Supply Assessment 2019[59]. The housing trajectory for these sites is presented in **Table 20** below:

Table 20: Mansfield housing trajectory for strategic sites April 2019

Allocation	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	Plan Period	Post Plan	Total
SUE1 Pleasley Hill Farm	0	0	0	0	15	30	50	50	50	50	50	50	50	50	50	495	165	660
SUE1 Pleasley Hill Farm (Water Lane)	0	0	0	0	0	0	0	10	25	25	25	25	25	4	0	139	0	139

[58] Available at: https://www.mansfield.gov.uk/downloads/file/936/he1-mansfield-housing-and-economic-land-availability-assessment-helaa-final-methodology-report-2018
[59] Available at: https://www.mansfield.gov.uk/downloads/file/931/h7-updated-housing-trajectory-and-five-year-supply-assessment-2019

Allocation	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	Plan Period	Post Plan	Total
SUE1 Pleasley Hill Farm (Land off Wharmby Avenue)	0	0	0	0	0	0	0	0	0	0	10	25	25	25	25	110	15	125
SUE1 Total	**0**	**0**	**0**	**0**	**15**	**30**	**50**	**60**	**75**	**75**	**85**	**100**	**100**	**79**	**75**	**744**	**180**	**924**
SUE2 Land off Jubilee Way	**0**	**0**	**0**	**0**	**0**	**0**	**25**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**425**	**375**	**800**
SUE3 Land at Berry Hill	**36**	**120**	**120**	**120**	**120**	**120**	**90**	**90**	**90**	**90**	**90**	**90**	**90**	**60**	**60**	**1386**	**314**	**1700**

Source: Examination Document H7 Updated Housing Trajectory and Five Year Supply Assessment 2019 (Mansfield District Council)

The 2019 Housing Monitoring Report[60] makes the following comments about the allocations:

- SUE1 Pleasley Farm: "This large strategic site is expected to have a lead in time to reflect the need to provide on and off site opening infrastructure. Delivery of homes expected from 2022/23; this reflects the nature of initial work, nature of landowner, strategic connections and potential market issues and is based on information from the majority landowner. Assuming up to 4 developers building approximately 25 dpa each (including the retirement housing). Forms part of a larger site including adjacent sites (52, 74c and 170). Delivery reflects strategic connections and potential market issues."
- SUE2 Land off Jubilee Way "A large greenfield site with significant lead in time required. The remodelling of the land, safeguarding and mitigating sensitive landscape and ecological features and the development of the rugby and golf club to release developable areas is expected to have a considerable lead in time. Off site highway works, and site opening infrastructure to enable delivery of this site is also likely to impact on the lead in time for delivery. For these reasons, delivery of homes is not anticipated to start during the next five years and will continue post plan. Assuming up to 2 developers each building approximately 25 dpa".
- SUE3 comment "A large greenfield site with outline planning permission. As of 31/03/19 3 parcels of land have reserved matters permission for 518 dwellings (166 Under Construction & 36 Completions). Landowner indicated expected build rate of 125-150dpa (April 2018). 4 Outlets currently on site so assumed that each build 30dpa; in future only 3 developers have been assumed".

The Local Plan was found sound with these assumptions. The Inspector's Report (March 2020)[61] stated the following with regards to SUE1 and 2:

> *"167. During the examination, the Council reviewed and revised the start dates for some of the site allocations within the trajectory. The SUEs are key to the District's housing delivery in the middle part of the Plan period. The commencement date of 2022/23 for the majority of Site SUE1 is realistic based on the preparatory investigations that have been undertaken. Similarly, a start date of 2024/25 for Site SUE2 is reasonable given the ecological assessments that need to be undertaken and infrastructure requirements. The HELAA has assessed delivery rates according to site size, the proximity of other housing development under construction and local market conditions. Delivery rates for Sites SUE1 and SUE2 are anticipated to rise gradually to 50 dpy towards the middle of the Plan period which will boost supply. Build out rates will be monitored through the AMR and will inform any necessary adjustments to the trajectory.*
>
> *168. Whilst some representors maintain that lead in times and delivery rates are still unrealistic, they are based wherever possible on discussions with representors, developers and landowners. In broad terms I am satisfied that most of the sites that the Council has identified within the five year supply from*

[60] Available at: https://www.mansfield.gov.uk/downloads/file/1150/housing-monitoring-report
[61] Available at: https://www.mansfield.gov.uk/downloads/file/1473/mansfield-local-plan-inspector-s-report

2019/20 to 2024/25 have a realistic prospect of being delivered. Additional sites are not required to meet the five year housing requirement."

Newark and Sherwood District

Like Ashfield and Mansfield Districts Newark and Sherwood District does not produce disaggregated historic completions data for individual sites, only publishing the data for the most recent monitoring year. Only forward-looking forecast figures are available.

The Amended Core Strategy makes four allocations of 500 dwellings or more:

- NAP2A Land South of Newark (in the region of 3,150 dwellings). Planning Permission and parameter plans for the site were initially approved in 2011 and amended in 2015.
- NAP2B Land East of Newark (in the region of 1,000 dwellings). The Council is in discussion with developers for this site, who are working up detailed plans for its development with a view of submitting a planning application and masterplan for the site in 2017. As part of this developers will prepare a detailed appraisal of the site.
- NAP2C Land around Fernwood (in the region of 3,200 dwellings). The Council is in discussion with developers for this site and consent has been granted for the southern portion (subject to the signing of a Section 106 legal agreement), an application for the northern portion is currently under consideration. It is anticipated that 2,095 dwellings will be delivered in the plan period.
- ShAP4 Land at the former Thoresby Colliery, Edwinstowe (in the region of 800 dwellings).

The most recently available housing trajectory in the 2019 Housing Monitoring Report[62] presents aggregated figures for all allocations that have planning permission, but does present trajectories for Land East of Newark and Land Around Fernwood which are unconsented.

Table 21: Newark and Sherwood housing trajectory for strategic sites at 1st April 2019

Allocation	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33
Allocated SUE – Land East of Newark	0	0	0	0	0	25	50	100	100	100	100	100	100	100
Allocated SUE – Land around Fernwood	0	0	0	0	0	85	85	85	85	85	85	85	85	85

Source: 2019 Housing Monitoring Report (Newark and Sherwood District Council)

The five-year land supply statement at 1st April 2020[63] identifies the following build-out rates in the next five year period:

Table 22: Five-year housing land supply at Newark and Sherwood strategic allocations

Allocation ref	Planning application	Type of permission	Address	Total dwellings	Total built	Total residual	2020/21	2021/22	2022/23	2023/24	2024/25	Total within 5 years
NAP2A	10/01586	Outline	Bowbridge Lane (Land South of Newark)	2,608	0	2,608	0	0	0	0	0	0
NAP2A	16/02120/RMAM	Detailed	Bowbridge Lane (Parcel 1)	173	81	92	36	36	20	0	0	92
NAP2A	17/01672/RMAM	Detailed	Bowbridge Lane (Land	64	62	2	2	0	0	0	0	2

[62] Available at: https://www.newark-sherwooddc.gov.uk/media/newarkandsherwood/imagesandfiles/planningpolicy/pdfs/monitoringreports/2019/2019HMR.pdf
[63] Available at: https://www.newark-sherwooddc.gov.uk/media/newarkandsherwood/imagesandfiles/planningpolicy/pdfs/monitoringreports/2020/Five%20Year%20Land%20Supply%20Statement%20as%20at%201st%20April%202020.pdf

Allocation ref	Planning application	Type of permission	Address	Total dwellings	Total built	Total residual	2020/21	2021/22	2022/23	2023/24	2024/25	Total within 5 years
			East of Bowbridge Lane – Parcel 2a)									
NAP2A	19/01164/RMAM	Detailed	Bowbridge Lane - parcels 4a & 4b	160	0	160	20	40	40	40	20	160
NAP2A	19/00522/RMAM	Detailed	Bowbridge Lane (Land East, Parcel 1, Phase 2B)	145	4	141	40	40	40	21	0	141
NAP2A total	**-**	**-**	**-**	**3,150**	**147**	**3,003**	**98**	**116**	**100**	**61**	**20**	**395**
NAP2B	**N/A**	**N/A**	**Land East of Newark**	**1,000**	**0**	**1,000**	**0**	**0**	**0**	**0**	**0**	**0**
NAP2C	N/A	N/A	Land around Fernwood (Residual allocation)	1,800	0	1,800	0	0	0	0	0	0
NAP2C	17/01266/OUTM	Outline	Fernwood Meadows South	350	0	350	0	0	0	0	0	0
NAP2C	18/00526/RMAM	Detailed	Land North and East of Fernwood	1,050	3	1,047	80	90	90	90	90	440
NAPC2 Total	**-**	**-**	**-**	3,200	3	3,197	80	90	90	90	90	440
ShAP4	16/02173/OUTM	Outline	Thoresby Colliery	657	0	657	0	0	0	0	0	0
ShAP4	19/01016/RMAM	Detailed	Thoresby Colliery	143	0	143	13	30	35	35	30	143
ShAP4 Total	**-**	**-**	**-**	**800**	**0**	**800**	**13**	**30**	**35**	**35**	**30**	**143**

Source: Newark and Sherwood Five year housing land supply (2020)

Table 22 shows that NAP2A Bowbridge Lane, Newark has between two and three parcels delivering concurrently at any time at 40dpa each, with a peak delivery estimated at 116 dpa in 2021/22. The site is being built out by Bellway, Avant Homes and Countryside Properties (three outlets). Peak year in the 5YHLS is 116dpa (2021/22).

NAP2B East of Newark is not permissioned, though the trajectory in the 2019 Housing Monitoring Report anticipated 100dpa from 2026/27 onwards.

NAP2C Land North and East of Fernwood has a projected delivery rate of 90dpa from two outlets including affordable housing. The outline permission was secured by Larkfleet Homes however the detailed 1,050

dwellings permission was secured by Barratt David Wilson Homes and is being built out under the Barratt and David Wilson Homes outlets (i.e. two outlets). Dividing 90dpa by two outlets results in 45dpa per outlet.

ShAP4 Thoresby Colliery has a projected delivery rate of 30-35dpa from one outlet (Harron Homes). The outline permission was secured by a housebuilder (Barratt) and a second access is planned which suggests that it is likely a second outlet would operate at the site in the future.

Lead-in times and build-out rates for the Kirkby Lane/Pinxton Lane and Cauldwell Road/Derby Road sites

National research on lead-in times shows they vary significantly depending on a number of factors. Both potential new settlement sites are in multiple ownership, have not been promoted for development previously by the landowners, and as disconnected new settlements there is a need for significant opening up works to begin construction. Based on the amount of work required to assemble the site, promote it through the plan-making process, gain an outline consent and sell it to housebuilders to build out we estimate that completions could take place 8 years from now in the 2028/29 monitoring year. Neither site is in the Green Belt which means that, in theory, planning applications could be twin-tracked with the plan-making process with the support of the Council (as land does not need to be released from the Green Belt to be granted permission).

In terms of build-out rates, national figures from volume housebuilders reports show a range of 34-102 dwellings per outlet per annum, but with averages around 50 dwelling per outlet per annum. Research has shown that completions per outlet can be as low as 30 dpa in weaker markets. Sites between 500 and 1500 dwellings can expect to be delivering in the range of 68-107dpa based on national case studies. This would be based on approximately 2-3 active sales outlets for sites <1,500 dwellings.

Within the Outer Nottingham Housing Market Area Ashfield's existing housing trajectory assumptions are around 35dpa per outlet; Mansfield between 25-30dpa per outlet and Newark 30-45 dpa per outlet. At this stage with no knowledge of the eventual housebuilder taking the sites forward an assumption of 35-40dpa is therefore appropriate.

The size of the new settlement sites, and the number of proposed access points at the sites (both have two), suggest that up to three outlets could operate at each site. With average build-out rates of 35-40 dpa per outlet this would result in average build-out rates of 35-120 dpa at the sites (based on 1-3 active outlets).

Combining these lead-in times and build-out rate assumptions we estimate the following trajectories for the two sites during the plan period (see **Table 23**). It should be noted that these lead-in times are presented as a "best case scenario" on the assumption that the landowners are willing to develop their sites and cooperate in doing so, signing an option agreement or promotion agreement with a housebuilder or a land promoter. The lead-in times will be lengthier if the landowners are not willing to develop their sites and instead the Council has to intervene by first setting up a joint venture or other delivery vehicle and then negotiate or use its compulsory purchase powers to assemble the sites. Such an approach could extend the lead-in time by 2-3 years. On this basis development of the sites would fall within two plan periods and extend beyond 2037, with an approximate build out period of 15-20 years.

Table 23: Estimated housing trajectories for the Kirkby Lane/Pinxton Lane and Cauldwell Road/Derby Road sites during the plan period

New Settlement Site Option	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35	35/36	36/37	37/38	Total in plan period
Kirkby Lane / Pinxton Lane	0	0	0	0	0	0	0	0	20	40	40	80	80	80	120	120	120	120	820
Cauldwell Road / Derby Road	0	0	0	0	0	0	0	0	20	40	40	80	80	80	120	120	120	120	820
Cumulative									*40*	*120*	*200*	*360*	*520*	*680*	*920*	*1,160*	*1,400*	*1,640*	**1,640**

Source: AECOM estimate

5.5 Conclusions

Both sites have the potential to deliver new homes, although each has significant constraints that will require further detailed investigations and mitigation (if developed). As both sites are detached from the existing urban areas of Kirkby-in-Ashfield and Sutton in Ashfield, the strategy for public transport corridors and encouraging sustainable travel modes will be critical to their success. Whilst they both benefit from relatively close proximity to the railway stations - Kirkby-in-Ashfield and Sutton Parkway - satisfactorily integrating them will present a considerable challenge.

In line with the National Planning Policy Framework, for an allocation at either site to be found sound, the Inspector will need to be convinced that either or both of the sites would enable sustainable development and would be deliverable. The questions that remain on both counts will need to be further explored as the new Local Plan evolves. However, it is clear that neither site would be capable of delivering significant housing numbers in the early phases of the plan period and so both should be principally considered for their potential to deliver homes in the latter part of the plan period, unless, for instance, external funding is secured to expedite their delivery.

Site 1: Kirkby Lane/Pinxton Lane, Kirkby-in-Ashfield

Site characteristics result in our estimate of housing capacity to be around 1,600 homes. Opportunities and constraints on the site include:

- Several employment areas and Kirkby-in-Ashfield town centre in close proximity to the site. These locations would be within a short commuting/cycling distance with improved/additional cycle lanes and adequate public transport serving the site.
- Relative proximity to Kirkby-in-Ashfield rail station and close proximity to the M1 and A38.
- Scope for a new settlement/garden village[64] to form an umbilical/co-dependant relationship with Kirkby-in-Ashfield. As such there would be potential to share services and social infrastructure for existing and new residents.
- Opportunities to create new Local Green Infrastructure Corridor links identified in the ADC Green Infrastructure and Biodiversity - Technical Paper (September, 2013).
- The presence of adjacent Ancient Woodland and designations of Nature Conservation Areas and Mature Landscape Areas in the Adopted Local Plan.
- The presence of an intermediate pressure ground gas main that reduces development capacity and overhead powerlines, that would need to be diverted or avoided.
- The likely presence of historic unrecorded coal mine workings at shallow depth (Development High Risk Area), as is typical in similar locations in Nottinghamshire.
- General suitability on landscape grounds, although a landscape buffer is recommended in the far south-eastern corner and it would be desirable to retain the green corridor associated with The Dumbles within any new development.
- The HS2 safeguarding area and local heritage constraints reduce the potential developable area at the south west of the site.
- Multiple land ownerships, with the availability of northern parcels currently unknown (requiring further investigation).
- The comparatively detached location, with few existing local facilities and close to strategic roads that are already congested – financial contributions to off-site highways improvements to the A38 will be expected.

[64] Garden villages (circa 1,000 – 2,000 dwellings) require their own social infrastructure and access to sustainable modes of transport. They will typically be in close proximity to a larger town or City and should be integrated into the established network through direct transport links, however there is often a need to reinforce those connections with new transport investment depending on the capacity of and distance to existing transport infrastructure. It is assumed there be some "2-way traffic" between existing populations of other settlements to the new services and facilities provided in the new settlement.

- Serious viability challenges, principally due to the level of on-site and off-site reinforcements that would be likely to be required. There may be opportunities to secure external funding streams to part fund highways improvements to help unlock/de-risk the site and improve viability.

Site 2: Cauldwell Road/Derby Road, Sutton in Ashfield

Site characteristics result in our estimate of housing capacity to be around 1,000 homes. Opportunities and constraints on the site include:

- Several employment areas and Kirkby-in-Ashfield/Sutton in Ashfield town centres in close proximity to the site. These locations would be within a short commuting/cycling distance with improved/additional cycle lanes and adequate public transport serving the site. Although not to existing bus routes and close to the congested A38.
- Relative proximity to Sutton Parkway rail station and close proximity to the A617 and A611.
- Scope for a new settlement/garden village to form an umbilical/co-dependant relationship with Kirkby-in-Ashfield and Sutton in Ashfield. As such there would be potential to share services and social infrastructure for existing and new residents.
- Opportunities to create new Local Green Infrastructure Corridor links identified in the ADC Green Infrastructure and Biodiversity - Technical Paper (September, 2013).
- Existing designations including Mature Landscape Areas and Nature Conservation Site.
- Historic England strongly recommending a development buffer around the Mound on Hamilton Hill Scheduled Monument.
- The need to mitigate potential new light pollution affecting the Sherwood Observatory.
- Potential suitability on landscape grounds, although with two recommended landscape buffers - a northern buffer to prevent perceptions of sprawl at the ridgeline on Coxmoor Road and of Mansfield south of the ring road, and an eastern buffer to contain sprawl into the rural land to the east and retain the heathy character of this area.
- Much of the potentially developable area being in single land ownership.
- Together, landscape and heritage constraints potentially significantly reducing the developable area.
- Serious viability challenges, with limited scope to overcome these viability challenges through the provision of additional homes. There may be some scope to increase the dwelling numbers once potential impacts on the Scheduled Ancient Monument have been explored in further detail (alongside the related landscape constraints).

6. Next steps

The report has sought to establish the feasibility of the two new settlement options and consider preliminary place-making considerations based on an understanding of the local landscape/character and urban design drivers and delivery considerations associated with the concept diagrams (including delivery mechanisms and potential delivery trajectory and timescales for the site within the emerging Ashfield Local Plan period to 2037 and beyond).

The following steps are recommended as the Council seeks to build the evidence base to justify the allocation of one or both of the sites:

- Formalise the new settlement identification process into a formal evidence base document to explain the rationale and the process behind the identification of these sites as new settlement opportunities.
- Duty to Cooperate discussions with neighbouring authorities, the County Council and social infrastructure providers. The sites will have significant highways implications in particular but also community facilities given the location of the sites at the boundaries with Mansfield and Bolsover districts. The need for on-site provision of infrastructure or contributions towards off-site provision should be established.
- Highways modelling – a dynamic highway re-assignment model should be produced to fully assess assignment of development traffic, and the impact on the strategic road network (notably A38, M1 and A611) which is already known to be congested.
- It is recommended that a detailed Coal Mining Risk Assessment (CMRA) is undertaken to inform on the legacy of potential coal mining at the site and an assessment of its potential impact on land stability, for the proposed end use.
- Minerals Consultation Area – further engagement with Nottinghamshire County Council regarding the feasibility of working the minerals underground at each site prior and whether or not this would preclude development during the plan period.
- It is recommended that a detailed desk study and preliminary intrusive ground investigation and monitoring is undertaken to confirm ground conditions and to identify the location of/prove the presence or absence of any potentially contaminated land. The investigation should be targeted to areas identified to have had a previous contaminative use, as well being sufficient to provide site wide coverage. The ground investigation should be designed with a view to enabling a robust ground model to be developed upon which a preliminary foundation assessment can be based, tailored to the intended development.
- A radon risk report should be obtained from UK Radon (Pubic Health England) which will serve to confirm and refine the extent of radon risk in areas identified with increased potential.
- Engage with utilities companies to confirm the loading demand and obtain budget quotes for the supplies or any reinforcement costs.
- Detailed Masterplanning – further testing of capacity and provision of an indicative layout building on the concept plans in this report.
- Relationship with the wider evidence base:
    - SHELAA – incorporate findings from this study with the HELAA process and any findings in that study.
    - Viability – implications for IDP/CIL and policy moving forwards.
    - SA – should the council decide that the two sites are “reasonable” options moving forwards, then the two sites will need to be included in the sustainability appraisal of reasonable alternative spatial strategies.
    - Retail and leisure needs – the sites are both distant from existing locations for higher order retail and leisure services. There should be further investigation into the appropriate quantum of retail and leisure floorspace to be accommodated on-site in order to not harm the vitality and viability of existing centres and locations.

Site 1: Kirkby Lane / Pinxton Lane

The following next steps are recommended for Site 1:

- Engagement with landowners that have not submitted Call for Sites forms to see if development at the north of The Dumbles is a reasonable prospect.
- Confirm easements and restrictions to changes in ground level, and the necessary size of utilities buffer zones, to understand implications for the quantum of developable area and site layout through the masterplanning process.
- It is recommended that a detailed Coal Mining Risk Assessment is undertaken to inform on the legacy of potential coal mining at the site and an assessment of its potential impact on land stability for the proposed end use.
- Drainage strategy to identify the land requirement to attenuate the flow of water in order to minimise the risk of flooding downstream, and any implications for viability, development capacity and layout. It is not considered that any of the constraints listed are showstoppers, however the steep areas of the site may limit the scope for larger regional attenuation, and therefore detailed consideration of source control (e.g. roadside swales, filter strips and bioretention systems within the residential areas should be considered. Any ground investigation of the site should include assessment of the suitability of the site for soakaways as the use of soakaways would reduce the need for attenuation features.
- To better understand the likelihood of applications for the Local Listing of Kirkby Cliff Farm, Nos. 1, 2 and 3 Cliff Lane and Shire Carr Farm being successful a Statement of Significance could be carried out for the buildings. To avoid the possibility of applications for statutory listing of the Locally Listed Cliff Farmhouse and Cart Shed an application for a Certificate of Immunity could be considered. This carries with it a risk that the building becomes listed as part of the process but if successful would mean the building cannot be considered for listing for a further five years.

Site 2: Cauldwell Road / Derby Road

The following next steps are recommended for Site 2:

- Biodiversity – Following correspondence between Ashfield District Council and Natural England ecology had been scoped out of this assessment. The Natural England Advice Note regarding the consideration of likely effects on the breeding population of nightjar and woodlark in the Sherwood Forest region[65] (2014) recommends a precautionary approach should be adopted by LPAs which ensures that reasonable and proportionate steps have been taken in order to avoid or minimise, as far as possible, any potential adverse effects from development on the breeding populations of nightjar and woodlark in the Sherwood Forest area.
- The recommended 'risk-based' approach suggests that "LPAs seek to ensure that plans and proposals are accompanied by an additional and robust assessment of the likely impacts arising from the proposals on breeding nightjar and woodlark in the Sherwood Forest area. This should ideally cover the potential direct, indirect and cumulative impacts which may include, but may not be limited to, the following:
    - disturbance to breeding birds from people, their pets and traffic
    - loss, fragmentation and/or damage to breeding and/or feeding habitat
    - bird mortality arising from domestic pets and/or predatory mammals and birds
    - bird mortality arising from road traffic and/or wind turbines
    - pollution and/or nutrient enrichment of breeding habitats".

  Site 2 at the east of the district is nearest to the ppSPA, however no boundary has been set and advice from Natural England is that the A611 road along the eastern boundary of the site would limit any impact on breeding birds from traffic, people and their pets; and also on pollution and/or nutrient enrichment of breeding habitats. The appropriate mechanism for assessing the impact on protected species is therefore the Habitats Regulations Assessment for the emerging Local Plan, which is being undertaken separately.
- Liaison with Historic England regarding harm to Hamilton Hill, notably from required access improvements along Cauldwell Road. The design of any proposed development should also take into consideration views

[65] Available at: https://www.mansfield.gov.uk/downloads/file/482/natural-england-s-advice-notes-on-the-sherwood-ppspa-2014

towards and from Hamilton Hill and aim to preserve or enhance any key views or historic connection between the Site and the scheduled monument. It is proposed that a Heritage Statement be completed in support an application for development of the Site. This Heritage Statement will take special consideration of the potential effects of the proposed development on the setting of the historic buildings and the scheduled remains of the Mound on Hamilton Hill as well as its impacts on the potential archaeological resource. This would be replaced by EIA scoping, desk-based assessment and ES chapter if the development is determined to be an EIA development.

- Engagement with Nottinghamshire County Council (as Minerals Planning Authority) and Mansfield Sand regarding suitable mitigation measures or amended phasing to prevent the sterilisation of any part of the site.
- Drainage – a topographical survey of the site to show levels of the site can highlight any areas in which drainage will be difficult. Ground Investigation to include soakaway tests to determine suitability for infiltration. If water cannot be discharged to ground then this will impact the developable area of the site and the cost of providing drainage.

Deliverability Considerations

It will be important to ensure there is sufficient confidence on scheme deliverability in order for sites to be allocated in a Local Plan to be found reasonable and appropriate – in particular those that are larger, more strategic and which are expected to deliver a high proportion of future housing supply

ADC will therefore need to consider not only the viability of proposals, but also wider considerations of deliverability including but not limited to:

- The willingness and ability of landowners, promoters and developers to bring forward the land for development in the timescale envisaged. This will need to include a credible delivery approach – involving stakeholders with sufficient experience and track record.
- The ability to deliver all necessary infrastructure and mitigation requirements, with no defined technical 'showstoppers' in terms of the feasibility and practicality of delivery. Some degree of uncertainty over the specific funding and delivery of long term infrastructure is to be expected, as funding programmes often do not extend out over the full time scale of development proposals. The position of key infrastructure providers will be key, to ensure that none are identifying unresolvable issues.
- The timing of when development and infrastructure is to be implemented, on the basis that any items anticipated early in the process (say within 5 years) will require a greater level of confidence and credibility than items beyond the short term.
- An appreciation of a need for flexibility rather than detailed prescription in the delivery of some requirements, should this be needed.
- The existence of potential solutions and/or fall back positions should certain matters require alternative solutions over time. This could include having in principle support from key stakeholders that could provide future assistance, such as the Councils, Homes England or the Local Enterprise Partnership.

As part of the process of preparing material for a Local Plan, there is usually a steady evolution of evidence on deliverability, as the various stakeholders make progress with information gathering and scheme de-risking.

It will be helpful to begin thinking about the approach to delivery and governance from an early stage. This is needed to not only provide understanding, but also to give confidence that a scheme would be credible and deliverable. A number of different stakeholders will be involved and an active dialogue will be needed to fully understand the various roles, drivers and key influences on each of these in order to then consider how such projects will come forward. Key stakeholders and considerations are set out below.

Table 24: Key Stakeholder Considerations (Source: Hyas)

Stakeholder	Key Considerations
Landowners	• Landowners relating to strategic greenfield sites are often asset rich but cash poor. They will generally not have the expertise or resources to undertake the work required to obtain the appropriate planning consents and move on to construction. • They are likely therefore to secure agreements with another commercial party through some form of legal agreement – for example through the use of either option or promotion agreements relating to all/part of their land holdings. • It appears that the landowners of the two sites are unlikely to have much experience of development and certainly not of large-scale proposals. They are therefore likely to explore options in the market to bring in suitably experienced developers or promoters to help take matters forward.
Developers & Housebuilders	• There is an active market in the construction and sale of local housing. Major players such as Barratt/David Wilson, Persimmon, Taylor Wimpey and Bellway, with other significant other developers operating nationally such as Redrow, Bovis, Countryside. There are other smaller entities sometimes operating regionally such as Avant Homes and Harron Homes. • Housebuilders are often most attracted to serviced land parcels with capacity for 100 to 250 dwellings as they provide a few years' worth of supply with minimal infrastructure or cashflow concerns. They may also decide to take on larger strategic land as the 'master developer' to provide a longer pipeline of future supply. • They will enter directly into option or agreements with landowners and take on the process of obtaining the necessary consents. On the larger sites they may also work in partnership with or sell parcels off to other housebuilders/developers
Land promoters	• Land promoters specialise in managing the planning and land risks inherent in establishing the principle of development on a site. They may therefore secure an interest, obtain necessary consents and then sell on to housebuilders & other developers, sharing returns with landowners.
Master developer	• There are a number of specialist companies who take on the promotion and delivery function of the larger and most strategic sites – doing the hard graft of assembling land, testing feasibility, overcoming technical hurdles to development, securing planning consents and taking care of servicing and infrastructure. They then sell on serviced plots to housebuilders/developers. • Due to the scale of the 2 sites being considered, it is likely that there will be some strategic coordination and infrastructure delivery issues that lead to a need for some form of master developer. The sites are however at a lower scale (in terms of new settlements being brought forward elsewhere), and therefore could potentially be suitable for a housebuilder or small number of housebuilders to operate together without the need for a separate master developer role.
Local Authorities	• There are a range of potential delivery roles that the Councils could take, from relatively passive with the Council's role limited to its statutory planning function to more interventionist. Examples of potential direct involvement could include: • **Direct intervention in partnership with the private sector:** A partnership approach would allow the councils to enter into agreements with private sector partners to pool assets, funding, skills and resources and jointly deliver large-scale development in a comprehensive manner and to share both risk and reward. • **Public-Sector Led Development:** Where the council may be willing to acquire land, or are able to work with a willing landowner, local authorities could take a leadership role in development and delivery, undertaken by the local authority itself or through a publicly owned 'Local Delivery Vehicle' (LDV).

	• **Development Corporations:** Development Corporations are distinct statutory bodies with a single remit to deliver growth over a fixed period of time and would be a more comprehensive approach to the implementation of a new settlement/s. • Given the initial viability information on the 2 proposed sites, the Councils (ADC & NCC) would need to consider carefully whether the Council ought to take a role, potentially to help enable the land to come forward with public sector funding support, potentially on a different basis to other commercial activities that it may be exploring (i.e. more focussed on delivering place based outcomes as opposed to pure commercial returns).
Homes England	• Homes England works closely with local authorities, and collaborates with private developers, housing associations, lenders and infrastructure providers to support the supply of new housing. It provides a range of funding and investment programmes, and can intervene where necessary in the market to get more homes built, tackle market failure where it occurs and help to shape a more resilient and diverse housing market.
D2N2 Local Enterprise Partnership (LEP)	• The LEP has access to funding routes to deliver growth across the area as a whole, including activities related to place-making, housing and infrastructure investment.
Infrastructure Providers	• A wider range of bodies and companies will be involved in the funding and provision of a range of specific types of infrastructure. They are responsible for capital programmes of investment based upon current and future growth and changes in service demand.

If the local authorities and local community are to be involved rather than simply responding to developers' plans they may need some form of direct involvement in a suitable delivery structure that can then help drive and manage development as it moves forward. There are several options that could be considered such as a joint venture arrangement, or by taking a more leading role such as acquiring the land, and/or setting up a statutory vehicle such as a development corporation.

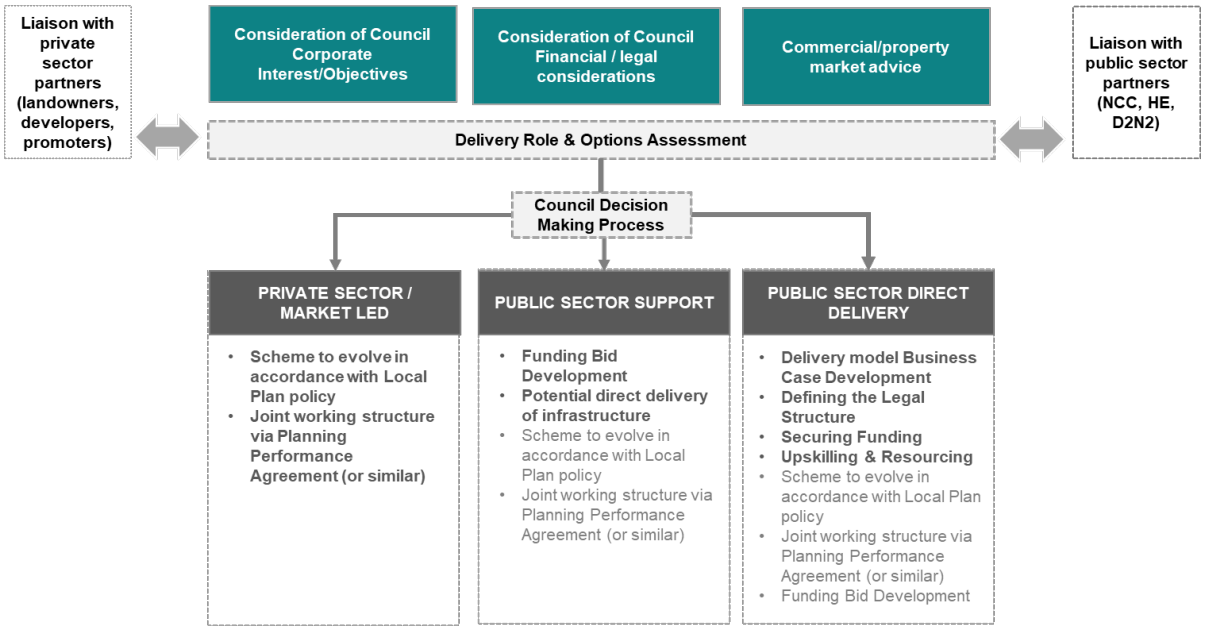
From the material currently available it appears that the proposals are at an early, formative stage, and that landowners have put the land forward without as yet defining the delivery approach or securing agreements with private sector developers or promoters. There will inevitably be further work to do in evolving proposals and establishing an appropriate model for delivery. In terms of moving forward we would suggest the Council takes forward the following steps:

- Council to consider internal Corporate objectives and appetite for direct involvement, to include appropriate financial and legal considerations together with advice on commercial/property matters.
- Council to separately liaise with the relevant landowners to understand their positions, next steps and thoughts on potential partnering opportunities.
- Council to also engage separately with public sector partners on the opportunities, mainly with NCC, Homes England and D2N2. This ought to consider any opportunities or eligibility the schemes may have for funding, together with any appetite from partner organisations to get involved in a potential delivery mechanism.
- From the above the Council to prepare a summary options appraisal to evolve credible options, their benefits, implications and challenges.
- Subject to the local Council governance arrangements there may need for appropriate scrutiny and formal decision making on preferred options (via committee structures across the relevant public sector partners).
- A decision should then be able to be made on the extent of potential involvement and overall approach to delivery. This would clearly be subject to a range of more detailed analysis, but could broadly entail either:
    - Leaving the schemes to be delivered by the market/private sector. In which case the Council role would be to work with the landowners and developers to deliver schemes compliant with policy, using tools such as a Planning Performance Agreements to secure active and positive collaboration.
    - Recognising a need for some element of public sector involvement. This would involve the same aspects as set out above, together with more proactive Council led work to bid for funding and/or allocate local resources to support the scheme's delivery, such as the provision of and/or direct delivery of certain infrastructure works;

- Taking a more comprehensive role with delivery, which would involve the need to establish some form of local delivery vehicle, secure appropriate funding (form various sources) and take the scheme/s through planning on to delivery.

A range of activity would need to be advanced to consider matters to the level of detail required to ultimately demonstrate that the sites were deliverable. Ultimately it will be for the Council with partners to take a view, especially with regard to considering the capability of the private sector to take the site/s forward in a traditional sense, the potential for funding and investment support and the potential need for any more formalised and interventionist approach. **Figure 17** sets out a summary of the potential next steps.

Figure 17: Delivery Steps / Route Map (Source: Hyas)



Appendix A Site Photos and Landscape Appraisal

Figure 18: Site Photo Viewpoints

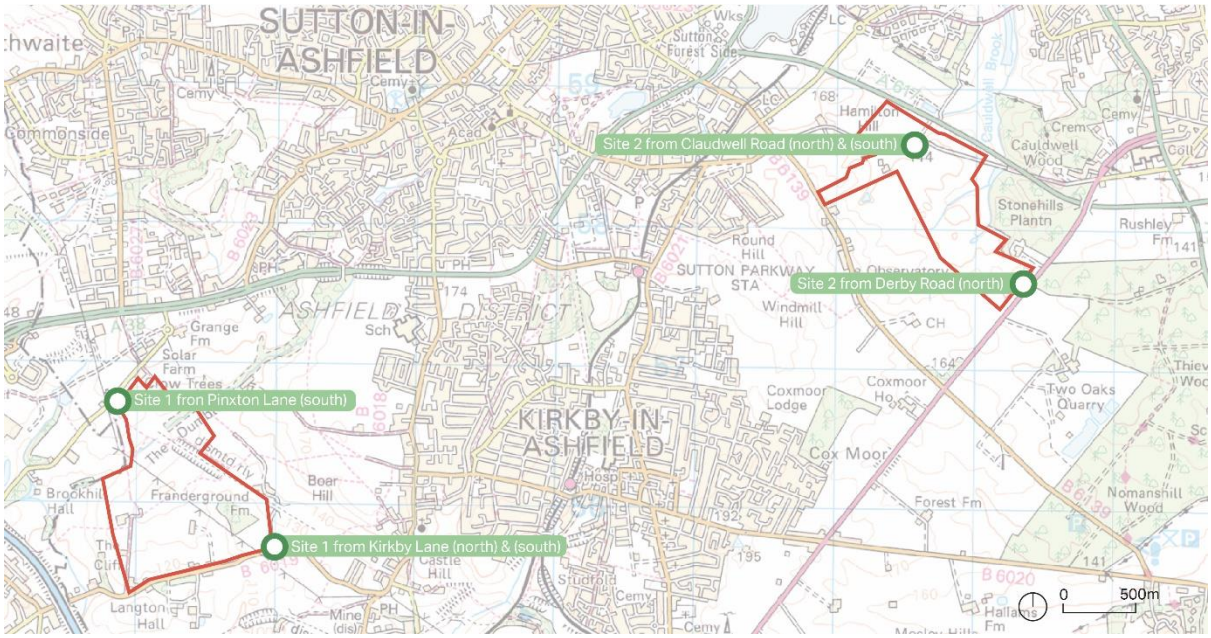


Figure 19: Site 1 from Kirkby Lane (north)

Figure 20: Site 1 from Kirkby Lane (south) – view away from site

Figure 21: Site 1 from Pinxton Lane

Figure 22: Site 2 from Caudwell Road (north)

Figure 23: Site 2 from Caudwell Road (south)

Figure 24: Site 2 from Derby Road

Table 25: Landscape Appraisal

Site No.	Site name	PZ	Slope	Landscape sensitivity	Visual sensitivity	Beautifully placed	Landscape planning issues	Overall suitability	Notes
1	**Kirkby Lane/ Pinxton Lane**	NC05	Gently sloping or uneven	Low sensitivity	Medium sensitivity	Medium potential	Medium	Potentially suitable	- The site slopes down from a ridgeline which runs north-east to the centre of the site. To the north there is a stream called The Dumbles, which forms a shallow depression in the topography. The area is overall elevated, with some long views to the south. - The context of the site is predominantly rural, comprising agricultural fields and some equestrian land use. However, there are some detracting features locally such as the industrial estate to the north of the site, and the disturbed land to the south. The woodland running through the northern half of the site forms part of a local wildlife site, however there are few other conservation interests within the surrounding context. The site also contains several public rights of way, including a bridleway and several footpaths. In terms of perceptual aspects, there are several influences in the surrounding area such as the M1 and several industrial areas which degrade the overall perceived experience. - There are long views available to the south from the eastern edge of the site, as well as from the north west across the site. The south-eastern edge of the site is more enclosed by vegetation, with visibility limited to immediately adjacent roads where roadside vegetation allows. - The stream known as The Dumbles flows east-west through the site and, with associated vegetation forms a green corridor. This is met in the centre of the site by the woodland associated with the disused railway line which runs south-west to north-east and forms a secondary corridor. There are opportunities to connect the woodland along the disused railway line to the woodland block just west of Franderground Farm. The area around the site has a coal-mining heritage which can be picked up in the design of new development. - The areas to the north, east and west of the site are relatively built up, with some industrial and commercial areas present. Therefore, development of the site has the potential to result in perceived sprawl, particularly to the south-east of the site. Kirkby Lane and Pinxton Lane both form defensible boundaries, as does the dismantled railway line. The rest of the site edges are formed by field boundaries. The proposed route of HS2 follows the western edge of the site. It will form a strong defensible boundary and likely screen views to the M1, but will also have the potential to increase perceived urbanisation in the surrounding area. - A landscape buffer is recommended in the far south-eastern corner of the site, where the more open views are located. It would be desirable to retain the green corridor associated with The Dumbles within any new development.

2	**Cauldwell Lane/ Derby Lane**	SH11/ SH41	Gently sloping or uneven	Medium sensitivity	Medium sensitivity	Medium potential	Medium	Potentially suitable	- The site has an undulating topography, generally falling from the ridgeline to the south-west. The centre of the site contains a localised area of higher ground, and there is an area of higher ground in the far north-west. There are some steeper slopes at the western end of Cauldwell Road, and a localised undulation in the east of the site which is attributed to a minor watercourse. - Land use in the site comprises mostly arable farmland, although there is a band of scrubby woodland along the western end of Cauldwell Road with some residential properties adjacent to it. The character of the landscape in the east of the site is influenced by heathy vegetation, which is a distinctive characteristic in the local area. Sherwood Way and adjacent industrial buildings are detractors, particularly in the north of the site. There are no public rights of way within the site, although a fishing lake is located adjacent to its north-eastern boundary. The site contains no conservation interests, although there is a local wildlife site adjacent to its south-eastern corner. - Visually, the sloping and undulating nature of the site means that there are views available across and from it, including views to the surrounding landscape from the ridgelines on Coxmoor Road and Derby Road and from the undulating land on Cauldwell Road. Some views into and across the site are interrupted by mature vegetation, such as views south from Cauldwell Road. - The tree belts along Cauldwell Road and along Cauldwell Brook form green corridors in the site, the former linking to Stonehills Plantation in the site's north-eastern corner. The heathy character of the area offers planting opportunities to strengthen this character, and the local coal-mining heritage also give potential for design cues in the new development. - The ridgelines and elevated land along Coxmoor Road and Derby Road (in particular the latter as it has a distinct rural character), give the risk that development up to these ridgelines could result in perceived sprawl of settlements. In addition, the presence of the south edge of Mansfield to the other side of Sherwood Way in the north of the site means that development of the northern edge of the site has the potential to result in perceived sprawl of Mansfield beyond its defined ring road boundary. - Two landscape buffers are recommended within the site boundary, one in the north, and the second on the eastern edge. The northern buffer is recommended in order to prevent perceptions of sprawl at the ridgeline on Coxmoor Road, as well as preventing perceived sprawl of Mansfield south of the ring road. The eastern buffer would contain sprawl into the rural land to the east, as well as retaining the heathy character of this area.

Appendix B Stakeholder List

In undertaking this study, the following stakeholders were approached for their views on the suitability of the two new settlement sites for development. The stakeholders that replied are listed in **bold text**:

Environment Agency

Historic England

Natural England

Homes England

Coal Authority

Western Power

Network Rail

NET (Nottingham Express Transit)

Severn Trent

Highways England

Canals and Rivers Trust

NHS Clinical Commissioning Group

Sport England

Civil Aviation Authority

Health and Safety Executive

Notts CC Lead Local Flood Authority

Local Wildlife Partnership

Forestry Commission

Notts CC Education

Notts CC Waste/Minerals

Notts CC Planning

Notts CC Highways

Derbyshire CC Planning

Cadent

National Grid

Western Power

East Mids Airport

Local NHS Trust and CCG

ADC Emergency Planning

Notts Police

Ambulance Service

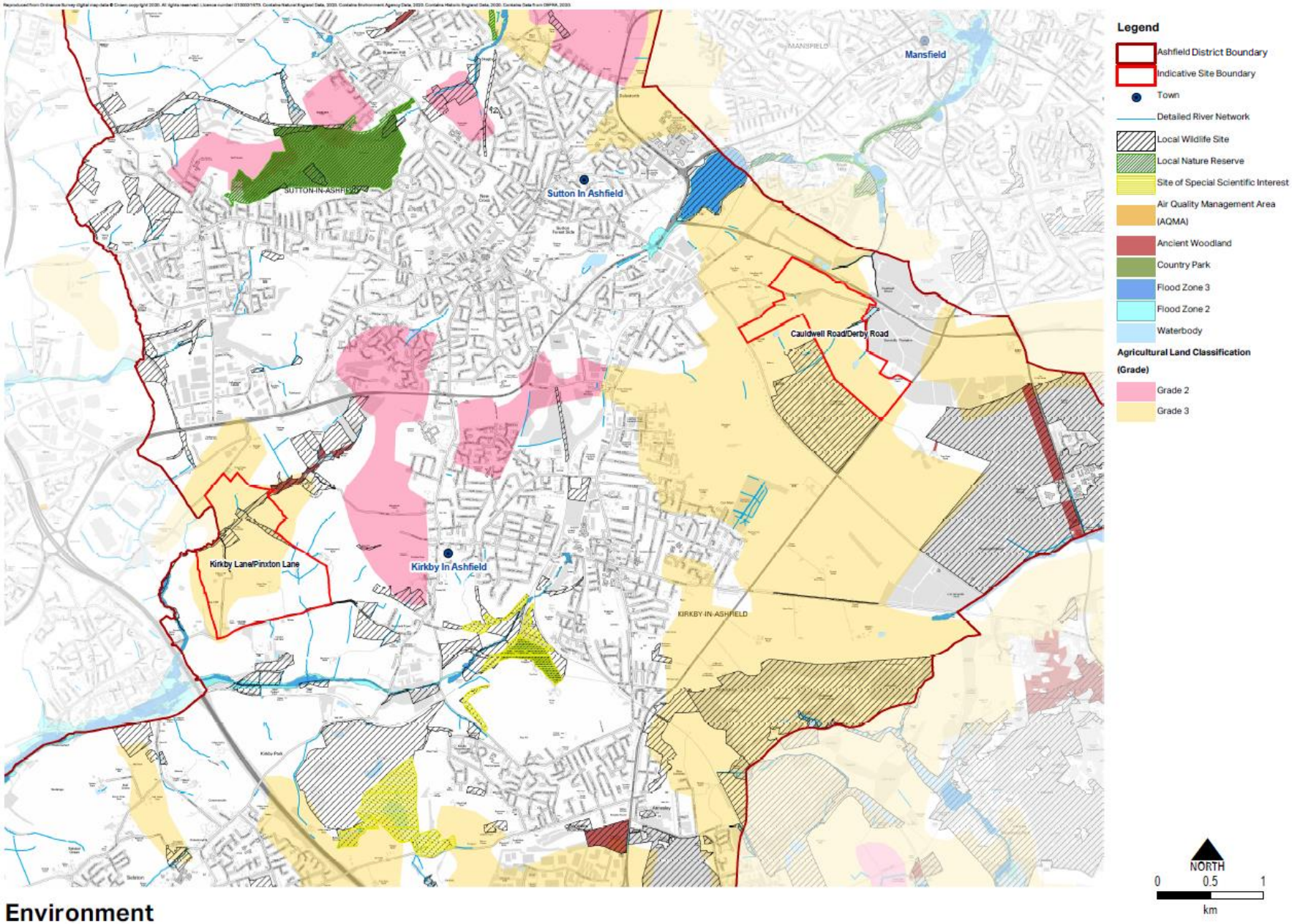
Notts Fire Service

D2N2 LEP

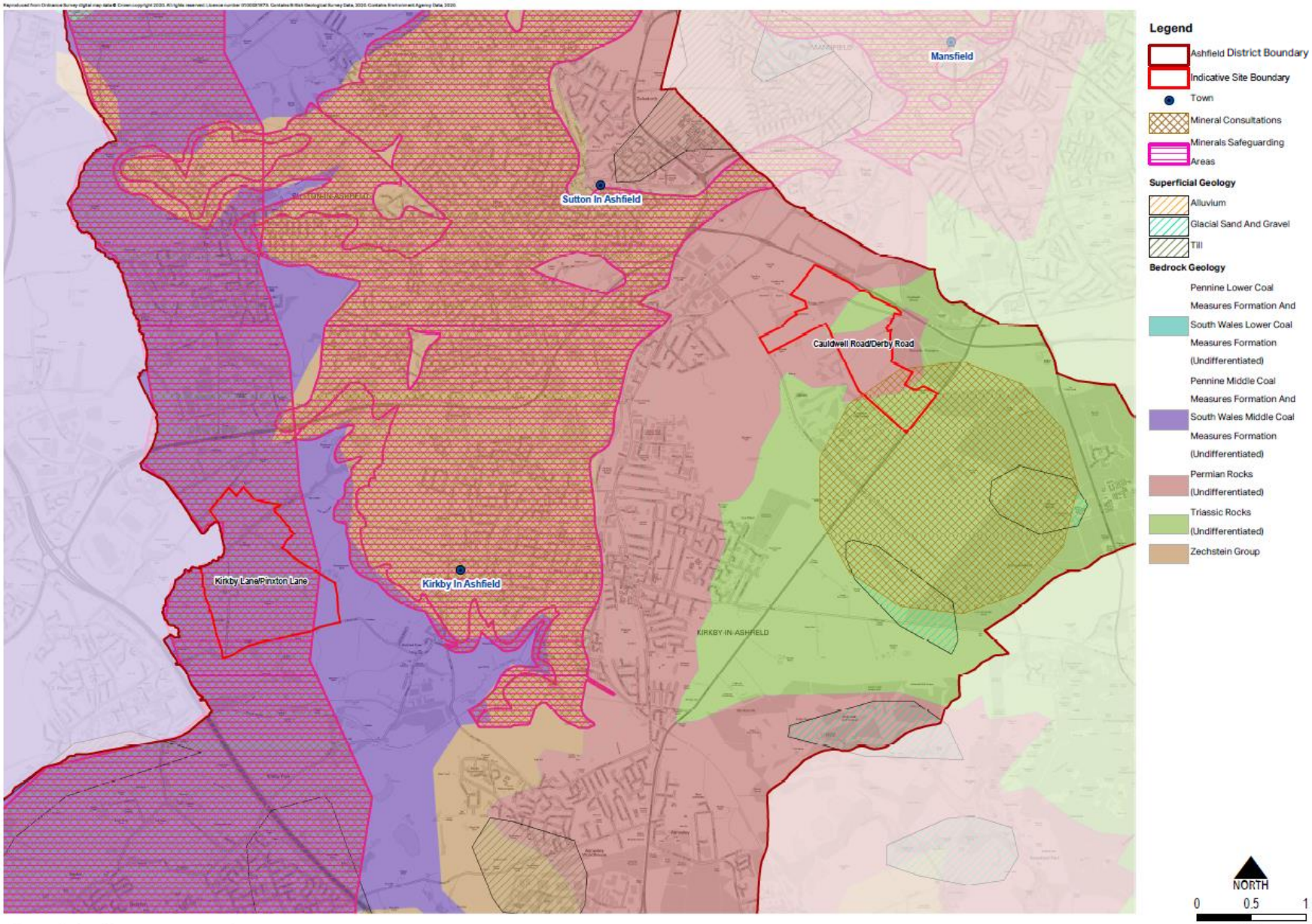
Sherwood Observatory

Mansfield DC

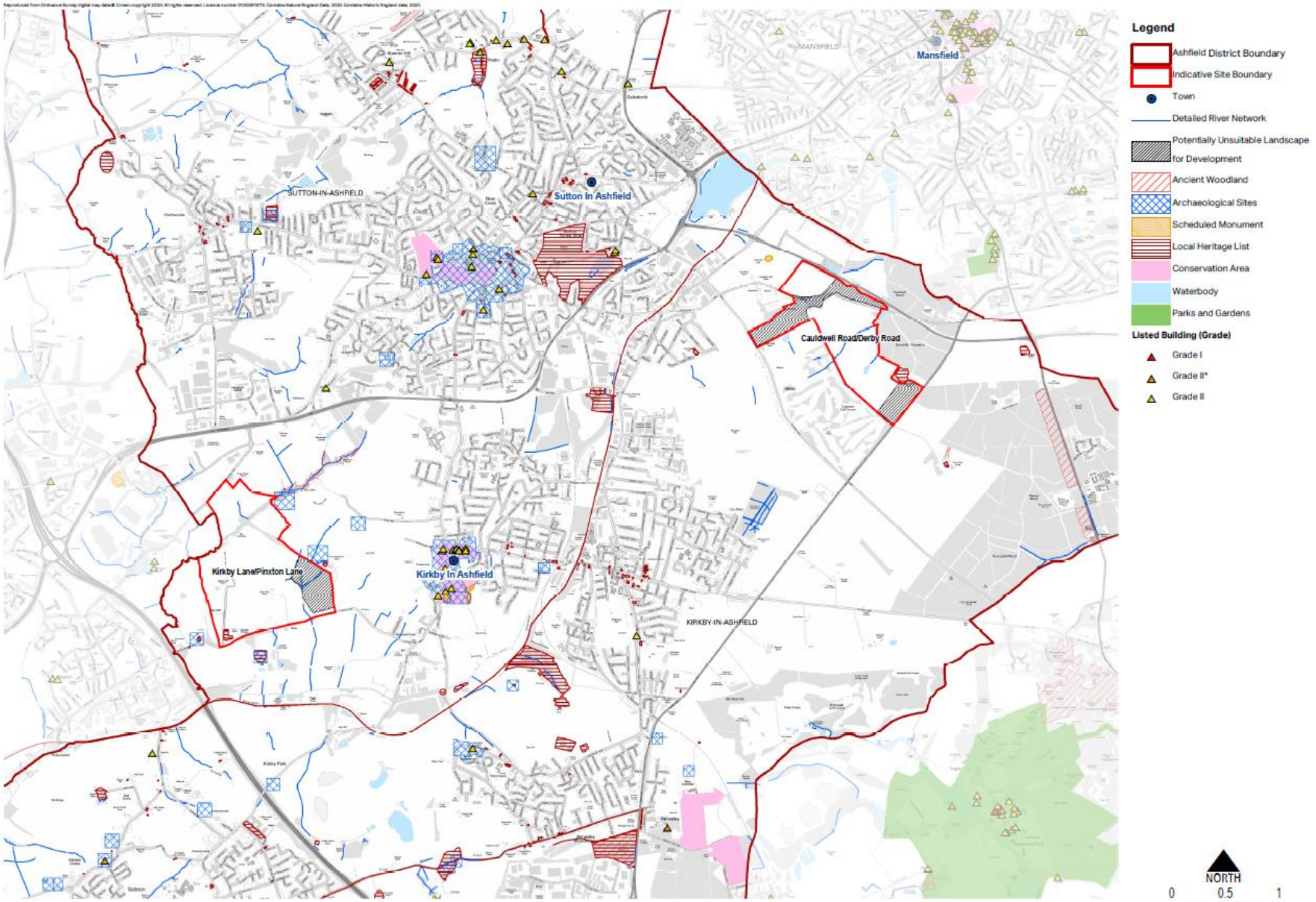
Appendix C Thematic Maps



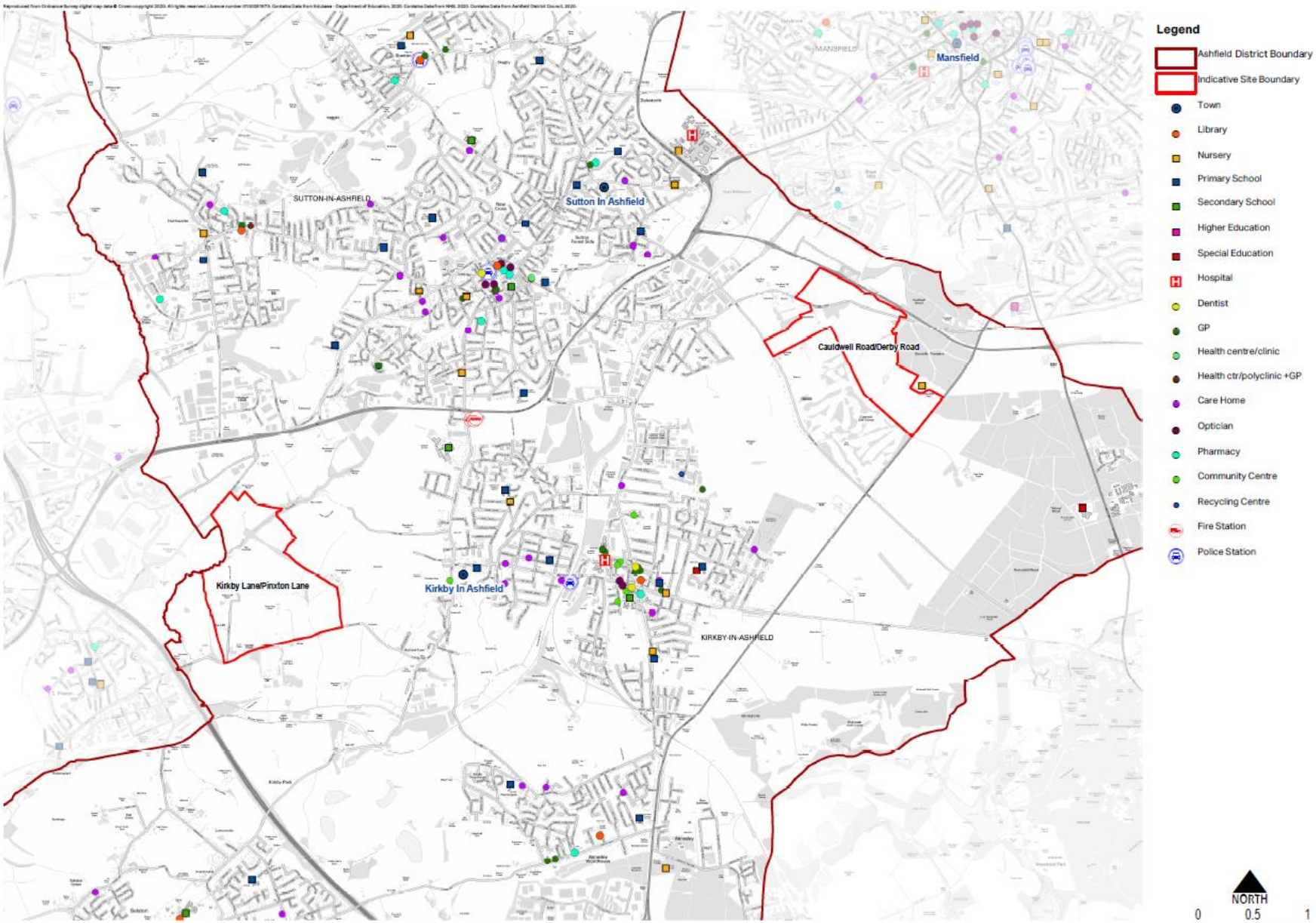
Environment



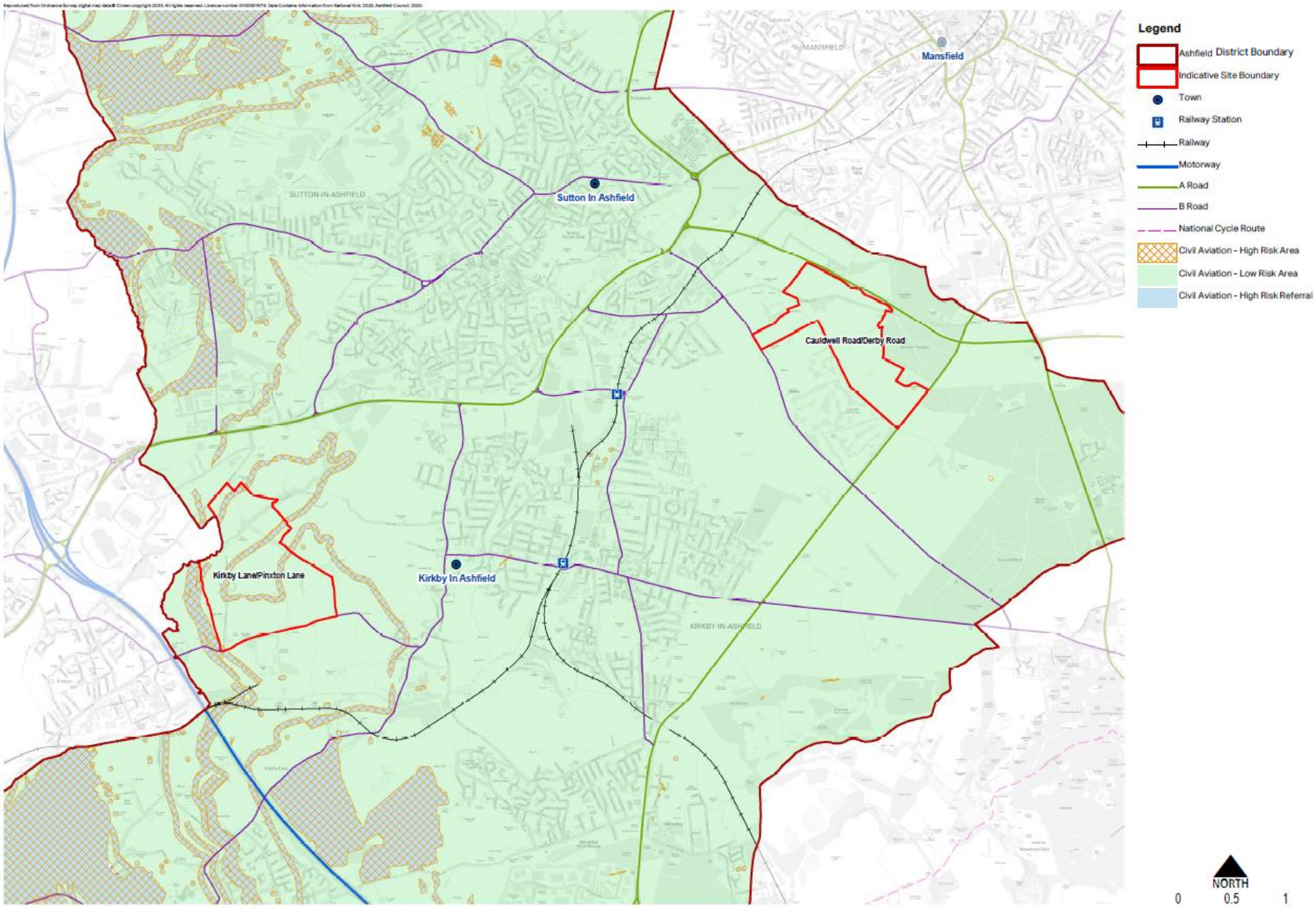
Geo-Environmental



Heritage and Landscape



Social Infrastructure



Transport and Infrastructure

Appendix D Viability Appraisal (HDH Planning & Development Ltd, 2020)

Ashfield District Council

Potential New Settlements Study

- Viability Annex

July 2020

Planning & Development

Important Notice

HDH Planning & Development Ltd (as sub-contractors to AECOM) has prepared this report for the sole use of Ashfield District Council in accordance with the instructions under which our services were performed. No other warranty, expressed or implied, is made as to the professional advice included in this report or any other services provided by us. This report may not be relied upon by any other party without the prior and express written agreement of HDH Planning & Development Ltd.

Some of the conclusions and recommendations contained in this report are based upon information provided by others (including the Council and consultees) and upon the assumption that all relevant information has been provided by those parties from whom it has been requested. Information obtained from third parties has not been independently verified by HDH Planning & Development Ltd, unless otherwise stated in the report. The conclusions and recommendations contained in this report are concerned with policy requirement, guidance and regulations which may be subject to change. They reflect a Chartered Surveyor's perspective and do not reflect or constitute legal advice and the Council should seek legal advice before implementing any of the recommendations.

No part of this report constitutes a valuation and the report should not be relied on in that regard.

Certain statements made in the report may constitute estimates, projections or other forward-looking statements and even though they are based on reasonable assumptions as of the date of the report, such forward looking statements by their nature involve risks and uncertainties that could cause actual results to differ materially from the results predicted. HDH Planning & Development Ltd specifically does not guarantee or warrant any estimate or projections contained in this report.

HDH Planning & Development Ltd
Clapham Woods Farm
Keasden, Nr. Clapham
Lancaster. LA2 8ET
simon@hdhplanning.co.uk
015242 51831 / 07989 975 977

Registered in England
Company Number 08555548

Issued	**By**	**Signed**
13th July 2020	RS Drummond-Hay MRICS ACIH Director	

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Tables of Contents

1. Introduction

Scope

1.1 Ashfield District Council (ADC / the Council) is in the process of producing a new Local Plan that will set out the future spatial strategy for the District, and that will include sites for allocation. This Viability Annex has been commissioned to inform the further development of the emerging Local Plan. HDH Planning & Development Ltd has been appointed to advise the Council in connection with the possibility of bringing forward potential new settlement sites located at:

a. Kirkby Lane/Pinxton Lane, Kirkby-in-Ashfield (Site 1)

b. Cauldwell Road/Derby Road, Sutton in Ashfield (Site 2)

1.2 The two potential sites are both agricultural and are based in the north of Ashfield District.

1.3 This briefly document sets out the methodology used, and the key assumptions adopted. It contains an assessment of the effect of the policies which may impact on the potential development. This will allow ADC to further engage with stakeholders, to ensure that the new Plan is effective.

COVID 19

1.4 This report is being carried out during the coronavirus pandemic. The coronavirus (Covid-19) was reported in China, in December 2019 and was declared a pandemic in March 2020. It is too early to predict what the impact on the economy, and therefore development economics, may be.

1.5 There are real material uncertainties around the values of property and the costs of construction that are a direct result of the Covid 19 pandemic. It is not the purpose of this assessment to predict what the impact may be and how long the effect will be. We expect there to be a pause in activity due to uncertainty in the wider economy, evidence of this is being reported by estate agents and developers. It is likely that, at the very least, the development markets will be checked, and house prices may fall. This may well have an adverse impact on viability. In terms of timing there is a likelihood that the direct impact of the virus will continue until a vaccine or similar prophylactic / cure is widely available and this may not be until next year (2021).

1.6 This assessment is conducted at June 2020 costs and values.

HDH Planning & Development Ltd (HDH)

1.7 HDH is a specialist planning consultancy providing evidence to support planning and housing authorities. The firm's main areas of expertise are:

a. District wide and site-specific viability analysis.

b. Community Infrastructure Levy.

c. Housing Market Assessments.

1.8 The findings contained in this report are based upon information from various sources including that provided by AECOM and the Council and by others, upon the assumption that all relevant information has been provided. This information has not been independently verified by HDH. The conclusions and recommendations contained in this report are concerned with policy requirements, guidance and regulations which may be subject to change. They reflect a Chartered Surveyor's perspective and do not reflect or constitute legal advice.

Caveat and Material Uncertainty

1.9 No part of this report constitutes a valuation and the report should not be relied on in that regard.

1.10 The outbreak of the Novel Coronavirus (COVID-19), declared by the World Health Organisation as a "Global Pandemic" on 11 March 2020, has impacted global financial markets. Travel restrictions have been implemented by many countries.

1.11 Market activity is being impacted in many sectors. As at the date of this report, we consider that we can attach less weight to previous market evidence for comparison purposes, to inform opinions of value. Indeed, the current response to COVID-19 means that we are faced with an unprecedented set of circumstances on which to base a judgement.

1.12 Our assessment is therefore reported on the basis of 'material valuation uncertainty' as per VPS3 and VPGA10 of the RICS Red Book Global. Consequently, less certainty – and a higher degree of caution – should be attached to our report than would normally be the case. Given the unknown future impact that COVID-19 might have on the real estate market, we recommend that the C keep the assessment under frequent review.

Compliance

1.13 HDH Planning & Development Ltd is a firm regulated by the Royal Institution of Chartered Surveyors (RICS). As a firm regulated by the RICS it is necessary to have regard to RICS Professional Standards and Guidance. There are two principle pieces of relevant guidance, being the *Financial viability in planning: conduct and reporting RICS professional statement, England (1st Edition, May 2019)* and *Financial Viability in planning (1st edition), RICS guidance note 2012*.

1.14 *Financial Viability in planning (1st edition), RICS guidance note 2012* is currently subject to a full review to reflect the changes in the 2019 NPPF and the updated PPG (May 2019). As part of the review, *Financial viability in planning: conduct and reporting. 1st edition, May 2019* was published in May 2019. This includes mandatory requirements for RICS members and RICS-

regulated firms. HDH confirms that the May 2019 Guidance has been followed as far as is practical, bearing in mind the limited scope of this study.

a. HDH confirms that in preparing this report the firm has acted with objectivity, impartially and without interference and with reference to all appropriate available sources of information.

b. HDH is appointed by Ashfield District Council (as a subcontractor to AECOM) and has followed a collaborative approach involving the LPA. At this early stage, there has not been wider consultation with developers, landowners and other interested parties as the Council considers that to be premature at this stage. If there is a decision is taken to progress these sites further into the planning system, it will be necessary to engage more widely.

c. The tender specification under which this project is undertaken is broad and extends well beyond the scope of this report. The scope of our instructions is copied from the Tender Brief below.

This would include an assessment of development viability based on a series of scenarios to be recommended by the successful bidder and agreed by the Council addressing the following elements:

- *Different housing densities.*
- *Any potential for on-site employment development that would complement a high quality scheme.*
- *Different levels of planning obligation.*
- *Different design standards, including different levels of energy efficiency.*
- *The provision of different services.*
- *Differing standards of green infrastructure provision, including cycle and footpaths.*
- *SUDs schemes*

It is important to note that this is not a plan-wide viability assessment. Rather the scope of this report is to inform a high level, early decision as to whether or not these sites may deliverable if progressed into the plan-making system.

d. HDH confirms it has no conflicts of interest in undertaking this project.

e. HDH confirms that, in preparing this report, no performance-related or contingent fees have been agreed.

f. The presumption is that a viability assessment should be published in full. HDH has prepared this report on the assumption that if it is published by the Council, that it will be published in full.

g. It is a general requirement that a non-technical summary is provided. In this instance a non-technical summary has not been produced. This is a technical study that informs a larger technical study and it is not anticipated that it will be published other than in full.

h. HDH confirms that adequate time has been taken, bearing in mind the limited scope of the project and that it does not extend to consultation with the industry.

i. This assessment will include appropriate sensitivity testing in Chapter 9. This includes the effect of different Affordable Housing requirements against different levels of developer contributions.

j. The Guidance includes a requirement that, '*all contributions to reports relating to assessments of viability, on behalf of both the applicants and authorities, must comply with these mandatory requirements. Determining the competency of subcontractors is the responsibility of the RICS member or RICS-regulated firm*'. Much of the information that informed this Viability Assessment was provided by ADC and AECOM. This information was not provided in a subcontractor role and, in accordance with HDH's instructions, this information has not been challenged nor independently verified.

1.15 In December 2019, the RICS published draft technical guidance in the form of RICS draft guidance note *Assessing financial viability in planning under the National Planning Policy Framework for England, 1st edition* for consultation. Whilst this is a draft document, we confirm that this report is generally in accordance with this further draft guidance (in as far as it relates to plan-wide viability assessments).

Metric or Imperial

1.16 The property industry uses both imperial and metric data – often working out costings in metric (£/m^2) and values in imperial (£/acre and £/sqft). This is confusing so metric measurements are used throughout this report. The following conversion rates may assist readers.

1m	=	3.28ft (3' and 3.37")	1ft	=	0.30m
1m^2	=	10.76 sqft	1sqft	=	0.0929m^2
1ha	=	2.471acres	1acre	=	0.405ha

1.17 A useful broad rule of thumb to convert m^2 to sqft is simply to add a final zero.

2. Viability Testing

2.1 Viability testing is an important part of the planning process. The requirement to assess viability forms part of the National Planning Policy Framework (NPPF), and is a requirement of the CIL Regulations.

National Planning Policy Framework

2.2 Paragraph 34 of the 2019 NPPF says that Plans should set out what development is expected to provide, and that the requirement should not be so high as to undermine the delivery of the plan.

> *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 (such as that needed for education, health, transport, flood and water management, green and digital infrastructure). Such policies should not undermine the deliverability of the plan.*

2.3 As in the 2012 NPPF (and 2018 NPPF), viability remains an important part of the plan-making process. The 2019 NPPF does not include detail on the viability process, rather stresses the importance of viability. The main change is a shift of viability testing from the development management stage to the plan-making stage.

2.4 Careful consideration has been made to the updated PPG (see below).

2.5 The effectiveness of plans was important under the 2012 NPPF, but a greater emphasis is put on deliverability in the 2019 NPPF which includes an updated definition:

> ***Deliverable****: To be considered deliverable, sites for housing should be available now, offer a suitable location for development now, and be achievable with a realistic prospect that housing will be delivered on the site within five years. In particular:*
>
> *a) sites which do not involve major development and have planning permission, and all sites with detailed planning permission, should be considered deliverable until permission expires, unless there is clear evidence that homes will not be delivered within five years (for example because they are no longer viable, there is no longer a demand for the type of units or sites have long term phasing plans).*
>
> *b) where a site has outline planning permission for major development, has been allocated in a development plan, has a grant of permission in principle, or is identified on a brownfield register, it should only be considered deliverable where there is clear evidence that housing completions will begin on site within five years.*
>
> *2019 NPPF Glossary*

2.6 Under the heading *Identifying land for homes*, the importance of viability is highlighted:

> *Strategic policy-making authorities should have a clear understanding of the land available in their area through the preparation of a strategic housing land availability assessment. From this, planning policies should identify a sufficient supply and mix of sites, taking into account their availability, suitability and likely economic viability. Planning policies should identify a supply of:*
>
> *a) specific, deliverable sites for years one to five of the plan period[32]; and*

> *b) specific, developable sites or broad locations for growth, for years 6-10 and, where possible, for years 11-15 of the plan.*
>
> *2019 NPPF Paragraph 67*

2.7 Under the heading *Making effective use of land*, viability forms part of ensuring land is suitable for development:

> *Local planning authorities, and other plan-making bodies, should take a proactive role in identifying and helping to bring forward land that may be suitable for meeting development needs, including suitable sites on brownfield registers or held in public ownership, using the full range of powers available to them. This should include identifying opportunities to facilitate land assembly, supported where necessary by compulsory purchase powers, where this can help to bring more land forward for meeting development needs and/or secure better development outcomes.*
>
> *2019 NPPF Paragraph 119*

2.8 The 2019 NPPF does not include technical guidance on undertaking viability work. This is included within the Planning Practice Guidance (PPG), the viability sections of which were updated in July 2018 and again in May 2019. The CIL sections of the PPG were updated in September 2019.

Planning Practice Guidance

2.9 The viability sections of the PPG (Chapter 10) were completely rewritten in 2018. The changes provide clarity and confirm best practice, rather than prescribe a new approach or methodology.

2.10 The PPG sets out requirements with regard to evidence.

> *Plans 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 the Community Infrastructure Levy (CIL) and planning obligations. Viability assessment should not compromise sustainable development but should be used to ensure that policies are realistic, and the total cumulative cost of all relevant policies will not undermine deliverability of the plan.*
>
> *23b-005-20190315*

2.11 This study takes a proportionate approach to considering the cumulative impact of policies and planning obligations.

2.12 The updated PPG includes 4 main sections:

Section 1 - Viability and plan making

2.13 The overall requirement is that:

> *...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 the Community Infrastructure Levy (CIL) and section 106...*
>
> *PPG 10-001-20190509*

2.14 This study takes a proportionate approach and considers all the local and national policies that will apply to new development.

> *It is the responsibility of plan makers in collaboration with the local community, developers and other stakeholders, to create realistic, deliverable policies. Drafting of plan policies should be iterative and informed by engagement with developers, landowners, and infrastructure and affordable housing providers.*
>
> *PPG 10-002-20190509*

2.15 At the early stage the consideration of these sites, it is considered premature to undertake consultation. If a decision is taken to progress these sites into the plan-making system it will be necessary to engage with regard to viability.

> *Policy requirements, particularly for affordable housing, should be set at a level that takes account of affordable housing and infrastructure needs and allows for the planned types of sites and development to be deliverable, without the need for further viability assessment at the decision making stage.*
>
> *PPG 10-002-20190509*

2.16 A range of levels of affordable housing have been tested against a range of levels of developer contributions.

> *Average costs and values can then be used to make assumptions about how the viability of each type of site would be affected by all relevant policies. Plan makers may wish to consider different potential policy requirements and assess the viability impacts of these. Plan makers can then come to a view on what might be an appropriate benchmark land value and policy requirement for each typology.*
>
> *PPG 10-004-20190509*

2.17 This study draws on a wide range of data sources, including those collected through the development management process. Outliers have been disregarded.

> *It is important to consider the specific circumstances of strategic sites. Plan makers can undertake site specific viability assessment for sites that are critical to delivering the strategic priorities of the plan. This could include, for example, large sites, sites that provide a significant proportion of planned supply, sites that enable or unlock other development sites or sites within priority regeneration areas. Information from other evidence informing the plan (such as Strategic Housing Land Availability Assessments) can help inform viability assessment for strategic sites.*
>
> *PPG 10-005-20180724*

2.18 If taken forward, these sites would be Strategic Sites so are considered individually.

> *Plan makers should engage with landowners, developers, and infrastructure and affordable housing providers to secure evidence on costs and values to inform viability assessment at the plan making stage.*
>
> *It is the responsibility of site promoters to engage in plan making, take into account any costs including their own profit expectations and risks, and ensure that proposals for development are policy compliant. Policy compliant means development which fully complies with up to date plan policies. A decision maker can give appropriate weight to emerging policies. It is important for developers and other parties buying (or interested in buying) land to have regard to the total cumulative cost of all relevant policies when agreeing a price for the land. Under no*

> *circumstances will the price paid for land be a relevant justification for failing to accord with relevant policies in the plan.*
>
> *PPG 10-006-20190509*

2.19 If the initial assessment, finds that these sites are suitable for development the Council will engage with the industry and landowners.

2.20 This study specifically considers the total cumulative cost of all relevant policies.

Section 2 - Viability and decision taking

2.21 It is beyond the scope of this study to consider viability in decision making.

Section 3 - Standardised inputs to viability assessment

2.22 The general principles of viability testing are set out under paragraph PPG 10-010-20180724.

> *Viability assessment is a process of assessing whether a site is financially viable, by looking at whether the value generated by a development is more than the cost of developing it. This includes looking at the key elements of gross development value, costs, land value, landowner premium, and developer return.*
>
> *This National Planning Guidance sets out the government's recommended approach to viability assessment for planning. The approach supports accountability for communities by enabling them to understand the key inputs to and outcomes of viability assessment.*
>
> *Any viability assessment should be supported by appropriate available evidence informed by engagement with developers, landowners, and infrastructure and affordable housing providers. Any viability assessment should follow the government's recommended approach to assessing viability as set out in this National Planning Guidance and be proportionate, simple, transparent and publicly available. Improving transparency of data associated with viability assessment will, over time, improve the data available for future assessment as well as provide more accountability regarding how viability informs decision making.*
>
> *In plan making and decision making viability helps to strike a balance between the aspirations of developers and landowners, in terms of returns against risk, and the aims of the planning system to secure maximum benefits in the public interest through the granting of planning permission.*
>
> *PPG 10-010-20180724*

2.23 This study sets out the approach, methodology and assumptions used. Ultimately, the Council will use the wider New Settlements Study (of which this report forms a part) to judge the appropriateness of including these sites in the next stage of the plan-making system.

> *Gross development value is an assessment of the value of development. For residential development, this may be total sales and/or capitalised net rental income from developments. Grant and other external sources of funding should be considered. For commercial development broad assessment of value in line with industry practice may be necessary.*
>
> *For broad area-wide or site typology assessment at the plan making stage, average figures can be used, with adjustment to take into account land use, form, scale, location, rents and yields, disregarding outliers in the data. For housing, historic information about delivery rates can be informative.*
>
> *PPG 10-011-20180724*

2.24 The residential values have been established using data from the Land Registry and other sources. These have been averaged as suggested. Non-residential values have been derived though consideration of capitalised rents as well as sales.

2.25 PPG paragraph 10-012-20180724 lists a range of costs to be taken into account.

- *build costs based on appropriate data, for example that of the Building Cost Information Service*
- *abnormal costs, including those associated with treatment for contaminated sites or listed buildings, or costs associated with brownfield, phased or complex sites. These costs should be taken into account when defining benchmark land value*
- *site-specific infrastructure costs, which might include access roads, sustainable drainage systems, green infrastructure, connection to utilities and decentralised energy. These costs should be taken into account when defining benchmark land value*
- *the total cost of all relevant policy requirements including contributions towards affordable housing and infrastructure, Community Infrastructure Levy charges, and any other relevant policies or standards. These costs should be taken into account when defining benchmark land value*
- *general finance costs including those incurred through loans*
- *professional, project management, sales, marketing and legal costs incorporating organisational overheads associated with the site. Any professional site fees should also be taken into account when defining benchmark land value*
- *explicit reference to project contingency costs should be included in circumstances where scheme specific assessment is deemed necessary, with a justification for contingency relative to project risk and developers return*

2.26 All these costs are taken into account.

2.27 The PPG then sets out how land values should be considered, confirming the use of the Existing Use Value Plus (EUV+) approach.

> *To define land value for any viability assessment, 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 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' (EUV+).*
>
> *PPG 10-013-20190509*

2.28 The PPG goes on to set out:

> *Benchmark land value should:*
>
> - *be based upon existing use value*
> - *allow for a premium to landowners (including equity resulting from those building their own homes)*
> - *reflect the implications of abnormal costs; site-specific infrastructure costs; and professional site fees*

> *Viability assessments should be undertaken using benchmark land values derived in accordance with this guidance. 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. There may be a divergence between benchmark land values and market evidence; and plan makers should be aware that this could be due to different assumptions and methodologies used by individual developers, site promoters and landowners.*
>
> *This evidence should be based on developments which are fully compliant with emerging or up to date plan policies, including affordable housing requirements at the relevant levels set out in the plan. Where this evidence is not available plan makers and applicants should identify and evidence any adjustments to reflect the cost of policy compliance. This is so that historic benchmark land values of non-policy compliant developments are not used to inflate values over time.*
>
> *In plan making, the landowner premium should be tested and balanced against emerging policies. In decision making, the cost implications of all relevant policy requirements, including planning obligations and, where relevant, any Community Infrastructure Levy (CIL) charge should be taken into account.*
>
> *PPG 10-014-20190509*

2.29 The approach adopted in this study is to start with the EUV. The 'plus' element is informed by the price paid for policy compliant schemes to ensure an appropriate landowners' premium. In this study we have not undertaken a full assessment in this regard. Bearing in mind the stage of the wider plan-making process, this will be covered fully when the Council undertake their full Local Plan Viability Study.

> *Existing use value (EUV) is the first component of calculating benchmark land value. EUV is the value of the land in its existing use. Existing use value is not the price paid and should disregard hope value. Existing use values will vary depending on the type of site and development types. EUV can be established in collaboration between plan makers, developers and landowners by assessing the value of the specific site or type of site using published sources of information such as agricultural or industrial land values, or if appropriate capitalised rental levels at an appropriate yield (excluding any hope value for development).*
>
> *Sources of data can include (but are not limited to): land registry records of transactions; real estate licensed software packages; real estate market reports; real estate research; estate agent websites; property auction results; valuation office agency data; public sector estate/property teams' locally held evidence.*
>
> *PPG 10-015-20190509*

2.30 This report has applied this methodology to establish the EUV.

2.31 The PPG sets out an approach to the developers' return

> *Potential risk is accounted for in the assumed return for developers at the plan making stage. It is the role of developers, not plan makers or decision makers, to mitigate these risks. The cost of complying with policy requirements should be accounted for in benchmark land value. Under no circumstances will the price paid for land be relevant justification for failing to accord with relevant policies in the plan.*
>
> *For the purpose of plan making an assumption of 15-20% of gross development value (GDV) may be considered a suitable return to developers in order to establish the viability of plan policies. Plan makers may choose to apply alternative figures where there is evidence to support this according to the type, scale and risk profile of planned development. A lower figure may be more appropriate in consideration of delivery of affordable housing in circumstances*

> *where this guarantees an end sale at a known value and reduces risk. Alternative figures may also be appropriate for different development types.*
>
> *PPG 10-018-20190509*

2.32 This approach is followed.

Section 4 - Accountability

2.33 This is a new section that sets out requirements on reporting by the local authority. These are beyond the scope of this report.

Community Infrastructure Levy Regulations and Guidance

2.34 The Council has not adopted CIL, and this study does not specifically extend to considering CIL as a mechanism for funding infrastructure. In any event, the CIL Regulations are broad, so it is necessary to have regard to them and the CIL Guidance (which is contained within the PPG) when undertaking a plan-wide viability assessment and considering the deliverability of development. The CIL Regulations came into effect in April 2010 and have been subject to several subsequent amendments[1]. CIL Regulation 14 (as amended) sets out the core principle for setting CIL. It is necessary to consider the CIL Regulations as they do impact on the wider plan-making process.

2.35 From April 2015, councils were restricted in relation to pooling S106 contributions from more than five developments[2] (where the obligation in the s106 agreement / undertaking is a reason for granting consent). The amendments to CIL Regulations that came into effect in September 2019 lifted these pooling restrictions. Payments requested under the s106 regime must still be (as set out in CIL Regulation 122):

a. necessary to make the development acceptable in planning terms;

b. directly related to the development; and

c. fairly and reasonably related in scale and kind to the development.

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[1] **SI 2010 No. 948**. The Community Infrastructure Levy Regulations 2010 *Made 23rd March 2010, Coming into force 6th April 2010.* **SI 2011 No. 987**. The Community Infrastructure Levy (Amendment) Regulations 2011 *Made 28th March 2011, Coming into force 6th April 2011.* **SI 2011 No. 2918**. The Local Authorities (Contracting Out of Community Infrastructure Levy Functions) Order 2011. *Made 6th December 2011, Coming into force 7th December 2011.* **SI 2012 No. 2975**. The Community Infrastructure Levy (Amendment) Regulations 2012. *Made 28th November 2012, Coming into force 29th November 2012.* **SI 2013 No. 982**. The Community Infrastructure Levy (Amendment) Regulations 2013. *Made 24th April 2013, Coming into force 25th April 2013.* **SI 2014 No. 385**. The Community Infrastructure Levy (Amendment) Regulations 2013. *Made 24th February 2014, Coming into force 24th February 2014.* **S1 2015 No. 836**. COMMUNITY INFRASTRUCTURE LEVY, ENGLAND AND WALES, The Community Infrastructure Levy (Amendment) Regulations 2015. *Made 20th March 2015*. **SI 2019 No. 966** COMMUNITY INFRASTRUCTURE LEVY, ENGLAND The Community Infrastructure Levy (Amendment) (England) Regulations 2019. Made - 22nd May 2019. **2019 No. 1103** COMMUNITY INFRASTRUCTURE LEVY, ENGLAND AND WALES The Community Infrastructure Levy (Amendment) (No. 2) Regulations 2019 *Made 9th July 2019. Coming into Force 1st September 2019*.

[2] CIL Regulations 123(3)

Viability Guidance

2.36 There is no specific technical guidance on how to test viability in the 2019 NPPF or the updated PPG, although the updated PPG includes guidance in a number of specific areas. There are several sources of guidance and appeal decisions[3] that support the methodology HDH has developed. This study follows the *Viability Testing in Local Plans – Advice for planning practitioners* (LGA/HBF – Sir John Harman) June 2012[4] (known as the **Harman Guidance**). This contains the following definition:

> *An individual development can be said to be viable if, after taking account of all costs, including central and local government policy and regulatory costs and the cost and availability of development finance, the scheme provides a competitive return to the developer to ensure that development takes place and generates a land value sufficient to persuade the land owner to sell the land for the development proposed. If these conditions are not met, a scheme will not be delivered.*

2.37 The planning appeal decisions, and the HCA good practice publication[5] suggest that the most appropriate test of viability for planning policy purposes is to consider the Residual Value of schemes compared with the Existing Use Value (EUV), plus a premium. The premium over and above the EUV being set at a level to provide the landowner with an inducement to sell. This approach is now specified in the PPG (see above).

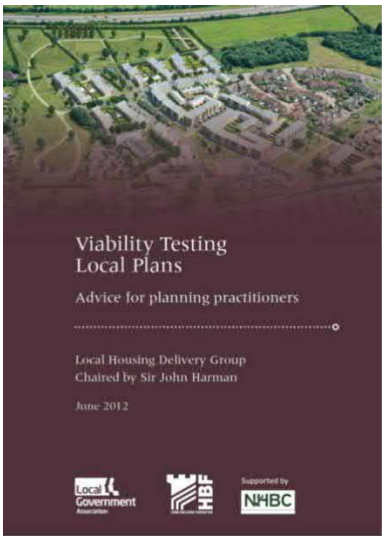
2.38 The Harman Guidance and *Financial viability in planning*, *RICS guidance note, 1st edition* (GN 94/2012) which was published during August 2012 (known as the **RICS Guidance**) set out the principles of viability testing[6]. Additionally, the Planning Advisory Service (PAS) provides viability guidance and manuals for local authorities.

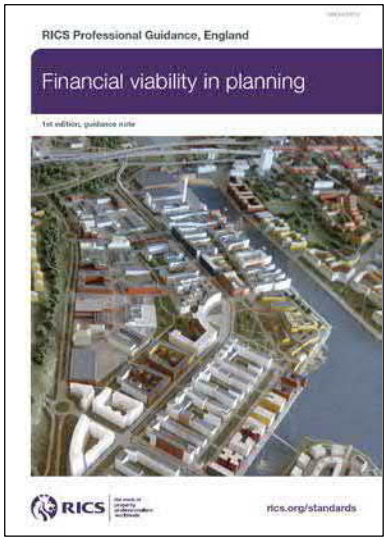
[3] Barnet: APP/Q5300/ A/07/2043798/NWF, Bristol: APP/P0119/ A/08/2069226, Beckenham: APP/G5180/ A/08/2084559, Bishops Cleeve; APP/G1630/A/11/2146206 Burgess Farm: APP/U4230/A/11/2157433, CLAY FARM: APP/Q0505/A/09/2103599/NWF, Woodstock: APP/D3125/ A/09/2104658, Shinfield APP/X0360/ A/12/2179141, Oxenholme Road, APP/M0933/A/13/2193338, Former Territorial Army Centre, Parkhurst Road, Islington APP/V5570/W/16/3151698, Vannes: Court of Appeal 22 April 2010, [2010] EWHC 1092 (Admin) 2010 WL 1608437.

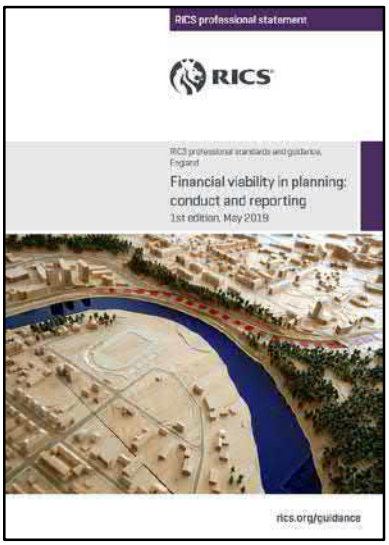
[4] Viability Testing in Local Plans has been endorsed by the Local Government Association and forms the basis of advice given by the, CLG funded, Planning Advisory Service (PAS).

[5] *Good Practice Guide*. Homes and Communities Agency (July 2009).

[6] There are two principle pieces of relevant guidance; *Draft Financial viability in planning: conduct and reporting RICS professional statement, England (October 2018)* and *Financial Viability in planning (1st edition), RICS guidance note 2012*. The 2012 guidance note, is subject to a full review to reflect the changes in the 2019 NPPF and the updated PPG (July 2018) so relatively little weight is given to this.







2.39 There is common ground between the 2012 RICS Guidance and the Harman Guidance, but they are not consistent. The RICS Guidance recommends against the 'EUV plus a margin' – which is the methodology recommended in the Harman Guidance and required by the updated PPG.

> *One approach has been to exclusively adopt current use value (CUV) plus a margin or a variant of this, i.e. existing use value (EUV) plus a premium. The problem with this singular approach is that it does not reflect the workings of the market as land is not released at CUV or CUV plus a margin (EUV plus)…..*
>
> *Financial viability in planning, RICS guidance note, 1st edition (GN 94/2012)*

2.40 The Harman Guidance advocates an approach based on Threshold Land Value (Threshold Land Value is equivalent to Benchmark Land Value as referred to in the updated PPG):

> *Consideration of an appropriate **Threshold Land Value** needs to take account of the fact that future plan policy requirements will have an impact on land values and landowner expectations. Therefore, using a market value approach as the starting point carries the risk of building-in assumptions of current policy costs rather than helping to inform the potential for future policy. Reference to market values can still provide a useful 'sense check' on the threshold values that are being used in the model (making use of cost-effective sources of local information), but it is not recommended that these are used as the basis for the input to a model.*
>
> *We recommend that the Threshold Land Value is based on a premium over current use values and credible alternative use values (noting the exceptions below).*
>
> *Viability Testing in Local Plans – Advice for planning practitioners. (June 2012)*

2.41 The RICS Guidance dismisses a Threshold Land Value approach as follows:

> *Threshold land value. A term developed by the Homes and Communities Agency (HCA) being essentially a land value at or above that which it is assumed a landowner would be prepared to sell. It is not a recognised valuation definition or approach.*

2.42 As set out in Chapter 1 above, *Financial viability in planning*, *RICS guidance note, 1st edition* (GN 94/2012) does not fit with 2019 NPPF and updated PPG so is subject to a full review to reflect the changes in the 2019 NPPF and the updated PPG (May 2019). Relatively little weight is given to this RICS Guidance in this regard at this stage. In December 2019, the

RICS published draft technical guidance in the form of *RICS draft guidance note - Assessing financial viability in planning under the National Planning Policy Framework for England, 1st edition for consultation*. This document provides advice for Chartered Surveyors on undertaking viability assessments in the context of the 2019 NPPF and PPG. Whilst this is a draft document, we confirm that this report is generally in accordance with this further draft guidance (in as far as it relates to plan-wide viability assessments).

2.43 In line with the updated PPG, this study follows the EUV Plus (EUV+) methodology. The methodology is to compare the Residual Value generated by the viability appraisals, with the EUV plus an appropriate uplift to incentivise a landowner to sell. The amount of the uplift over and above the EUV is central to the assessment of viability. It must be set at a level to provide a return to the landowner. To inform the judgement as to whether the uplift is set at the appropriate level, reference is made to the value of the land both with and without the benefit of planning. This approach is in line with that recommended in the Harman Guidance (as endorsed by LGA and PAS).

3. Methodology

Viability Testing – Outline Methodology

3.1 As far as is practical, bearing in mind the high level nature of this study, this report follows the Harman Guidance. The availability and cost of land are matters at the core of viability for any property development. The format of the typical valuation is:

Gross Development Value
(The combined value of the complete development)

LESS

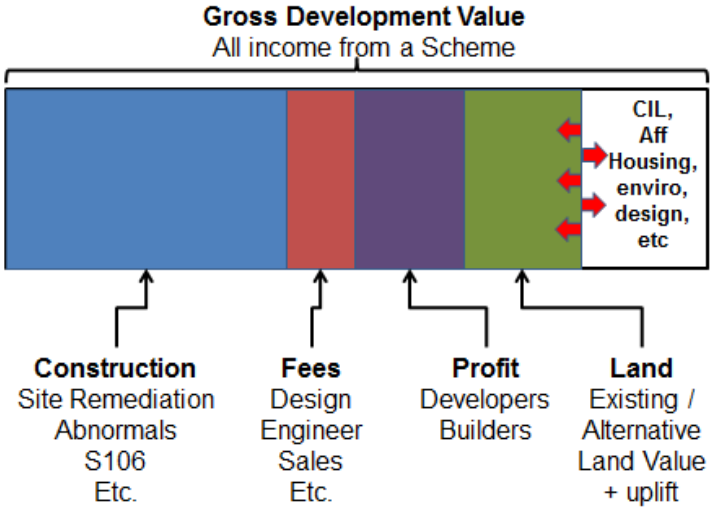
Cost of creating the asset, including a profit margin
(Construction + fees + finance charges)

=

RESIDUAL VALUE

3.2 The result of the calculation indicates a land value, the Residual Value. The Residual Value is the top limit of what a developer could offer for a site and still make a satisfactory return (i.e. profit).

3.3 In the following graphic, the bar illustrates all the income from a scheme. This is set by the market (rather than by the developer or local authority). Beyond the economies of scale that larger developers can often enjoy, the developer has relatively little control over the costs of development, and whilst there is scope to build to different standards the costs are largely out of the developer's direct control – they are what they are.



3.4 The essential balance in viability testing is around the land value and whether or not land will come forward for development. The more policy requirements and developer contributions a planning authority asks for, the less the developer can afford to pay for the land. The purpose

of this assessment is to quantify the costs of the Council's policies and to assess the effect of these and then make a judgement as to whether or not land prices are squeezed to such an extent that the Plan is not deliverable.

3.5 The land value is a difficult topic since a landowner is unlikely to be entirely frank about the price that would be acceptable, always seeking a higher one. This is one of the areas where an informed assumption has to be made about the 'uplift' above the 'EUV' which would make the landowner sell.

3.6 This study is not trying to mirror any particular developer's business model – rather it is making a broad assessment of viability in the context of plan-making and the requirements of the 2019 NPPF and CIL Regulations.

The meaning of Landowner Premium

3.7 The phrase *landowner premium* is new in the updated PPG. Under the 2012 NPPF, and the superseded PPG, the phrase *competitive return* was used. This is at the core of a viability assessment. The 2012 RICS Guidance included the following definition:

> ***Competitive returns*** *- A term used in paragraph 173 of the NPPF and applied to 'a willing land owner and willing developer to enable development to be deliverable'. A 'Competitive Return' in the context of land and/or premises equates to the Site Value as defined by this guidance, i.e. the Market Value subject to the following assumption: that the value has regard to development plan policies and all other material planning considerations and disregards that which is contrary to the development plan. A 'Competitive Return' in the context of a developer bringing forward development should be in accordance with a 'market risk adjusted return' to the developer, as defined in this guidance, in viably delivering a project.*

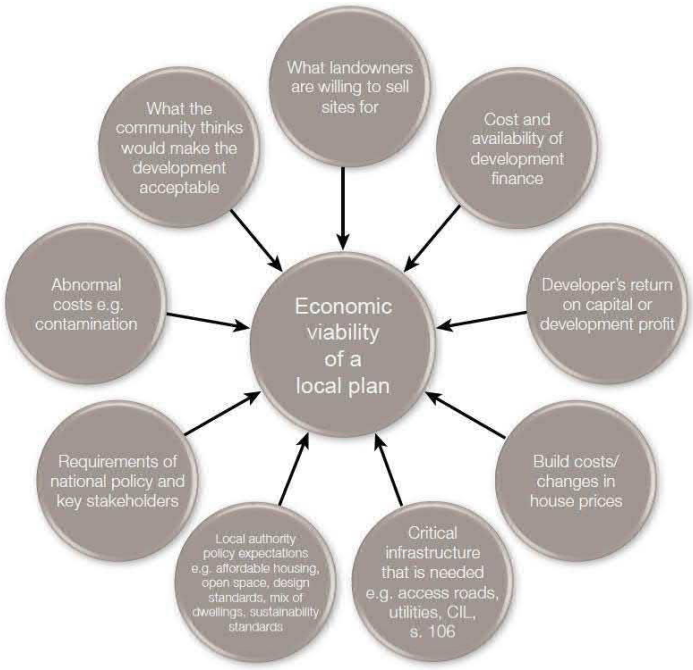
3.8 Whilst this is useful it does not provide guidance as to the size of that return. The updated PPG says:

> *Benchmark land value should:*
>
> - *be based upon existing use value*
> - *allow for a premium to landowners (including equity resulting from those building their own homes)*
> - *reflect the implications of abnormal costs; site-specific infrastructure costs; and professional site fees and*
>
> *Viability assessments should be undertaken using benchmark land values derived in accordance with this guidance. 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. There may be a divergence between benchmark land values and market evidence; and plan makers should be aware that this could be due to different assumptions and methodologies used by individual developers, site promoters and landowners.*
>
> *This evidence should be based on developments which are fully compliant with emerging or up to date plan policies, including affordable housing requirements at the relevant levels set out in the plan. Where this evidence is not available plan makers and applicants should identify and evidence any adjustments to reflect the cost of policy compliance. This is so that historic benchmark land values of non-policy compliant developments are not used to inflate values over time.*

> *In plan making, the landowner premium should be tested and balanced against emerging policies. In decision making, the cost implications of all relevant policy requirements, including planning obligations and, where relevant, any Community Infrastructure Levy (CIL) charge should be taken into account.*
>
> *PPG 10-014-20190509*

3.9 There has been much discussion as to what may and may not be a landowner premium. The term has not been given a firm definition through the appeal, planning examination or legal processes. 'Competitive return' was considered at the Shinfield Appeal (January 2013)[7] and the case is sometimes held up as a firm precedent, however as confirmed in the Oxenholme Road Appeal (October 2013)[8] the methodology set out in Shinfield is site specific and should only be given limited weight. More recently further clarification has been provided in the Territorial Army Centre, Parkhurst Road, Islington Appeal (June 2017)[9], which has subsequently been confirmed by the High Court[10].

3.10 This study is about the economics of development, however, viability brings in a wider range than just financial factors. The following graphic is taken from the Harman Guidance and illustrates some of the non-financial as well as financial factors that contribute to the assessment process. Viability is an important factor in the plan-making process, but it is one of many factors.



[7] APP/X0360/A/12/2179141 (Land at The Manor, Shinfield, Reading RG2 9BX)

[8] APP/M0933/ A/13/ 2193338 (Land to the west of Oxenholme Road, Kendal, Cumbria)

[9] APP/V5570/W/16/3151698 (Former Territorial Army Centre, Parkhurst Road, Islington, London, N7 0LP)

[10] Parkhurst Road Limited v Secretary of State for Communities and Local Government and The Council of the London Borough of Islington [2018] EWHC 991 (Admin)

Existing Available Evidence

3.11 The 2019 NPPF, the PPG, the CIL Regulations and CIL Guidance are clear that the assessment of viability should, wherever possible, be based on existing available evidence rather than new evidence. The evidence that is available from the Council has been reviewed.

3.12 The *Ashfield District Council Whole Plan & Community Infrastructure Levy Viability Assessment* (NCS, July 2016) was prepared earlier in the plan-making process and to inform the setting of CIL. This assessment was produced before the 2019 NPPF and updated PPG so is given limited weight.

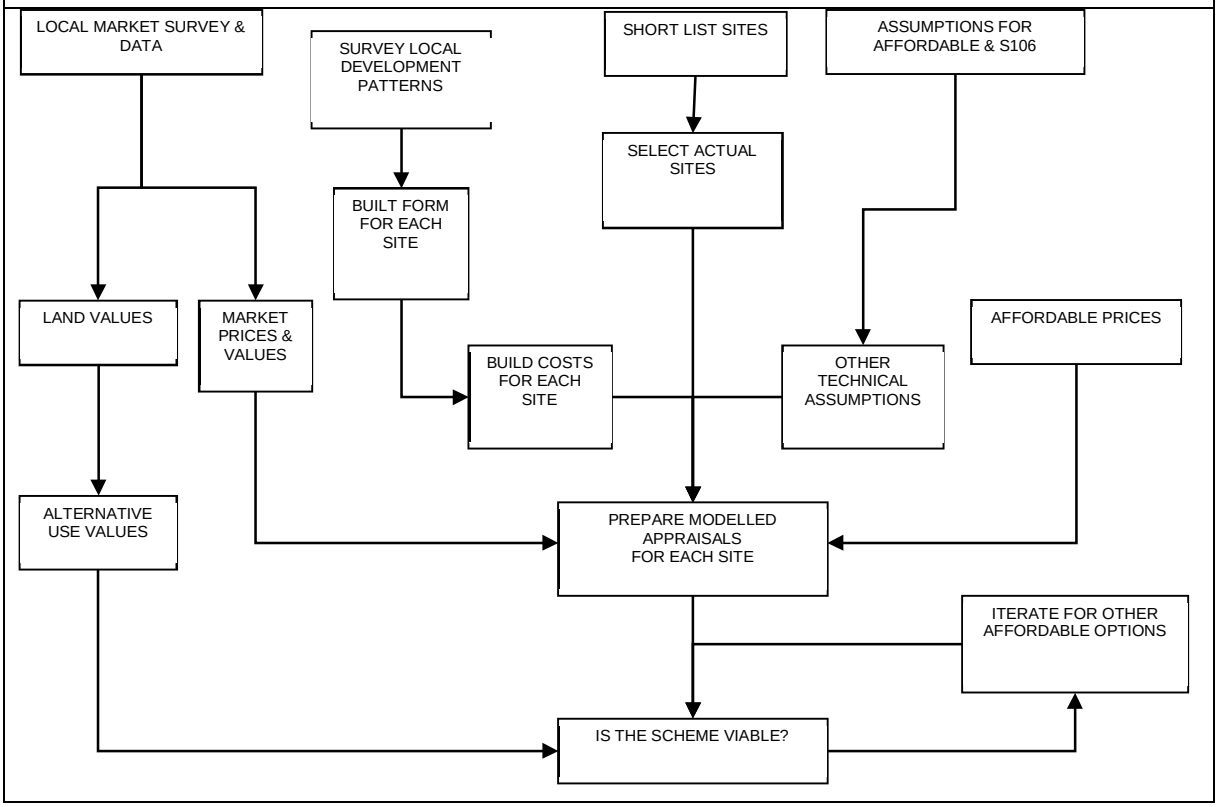
Stakeholder Engagement

3.13 The PPG requires stakeholder engagement, as does the RICS Guidance. This is study is not a plan wide viability study and the scope of the report is very limited, to inform a decision as to whether or not to progress the two potential new settlements into the planning system. It is beyond the scope of this assessment to consult with the industry and landowners. If these sites are progressed it will be necessary to engage in due course.

Viability Process

3.14 The assessment of viability as required under the 2019 NPPF and the CIL Regulations is a quantitative and qualitative process. The basic viability methodology is summarised in the figure below. It involves preparing financial development appraisals for a representative range of typologies, and using these to assess whether development, generally, is viable. The typologies were modelled based on information provided by AECOM and discussions with Council officers. Details of the modelling are set out later in this report.

Figure 3.1 Viability Methodology



Source: HDH 2020

3.15 The local housing markets were surveyed to obtain a picture of sales values. Land values were assessed to calibrate the appraisals and to assess EUVs. Alongside this, local development patterns were considered, to arrive at appropriate built form assumptions. These in turn informed the appropriate build cost figures. Several other technical assumptions were required before appraisals could be produced. The appraisal results were in the form of £/ha 'residual' land values, showing the maximum value a developer could pay for the site and still make an appropriate return. The Residual Value was compared to the EUV for each site. Only if the Residual Value exceeded the EUV, and by a satisfactory margin (the Landowners' Premium), could the scheme be judged to be viable. The amount of margin is a difficult subject, it is discussed, and the approach taken in this study is set out, in the later parts of Chapter 6 below.

3.16 The appraisals are based on existing and emerging policy options as summarised later in this report. The preparation of draft policies within the ongoing Local Plan Review is still at the draft stage, so the policy topics used in this assessment may be subject to changes. For appropriate sensitivity testing, a range of options including different levels of Affordable Housing provision and different levels of developer contribution are tested. If the Council allocates different types of site, or develops significantly different policies to those tested in this study, it may be necessary to revisit viability and consider the impact of any further or different requirements.

3.17 A bespoke viability testing model designed and developed by HDH specifically for area wide viability testing is used, as required by the 2019 NPPF and CIL Regulations[11]. The purpose of the viability model and testing is not to exactly mirror any particular business model used by those companies, organisations or people involved in property development. The purpose is to capture the generality, and to provide high level advice to assist ADC in assessing the deliverability of the Local Plan and to assist the Council in considering CIL.

[11] This Viability Model is used as the basis for the Planning Advisory Service (PAS) Viability Workshops. It is made available to Local Authorities, free of charge, by PAS and has been widely used by Councils across England (and, to a lesser extent, Wales).

4. Residential Market

4.1 This chapter sets out an assessment of the housing market, providing the basis for the assumptions on house prices. The study is concerned not just with the prices but the differences across different areas. Market conditions will broadly reflect a combination of national economic circumstances, and local supply and demand factors, however, even within a town there will be particular localities, and ultimately site-specific factors, that generate different values and costs.

The Residential Market

4.2 The *Ashfield District Council Whole Plan & Community Infrastructure Levy Viability Assessment* (NCS, July 2016) described the area as follows:

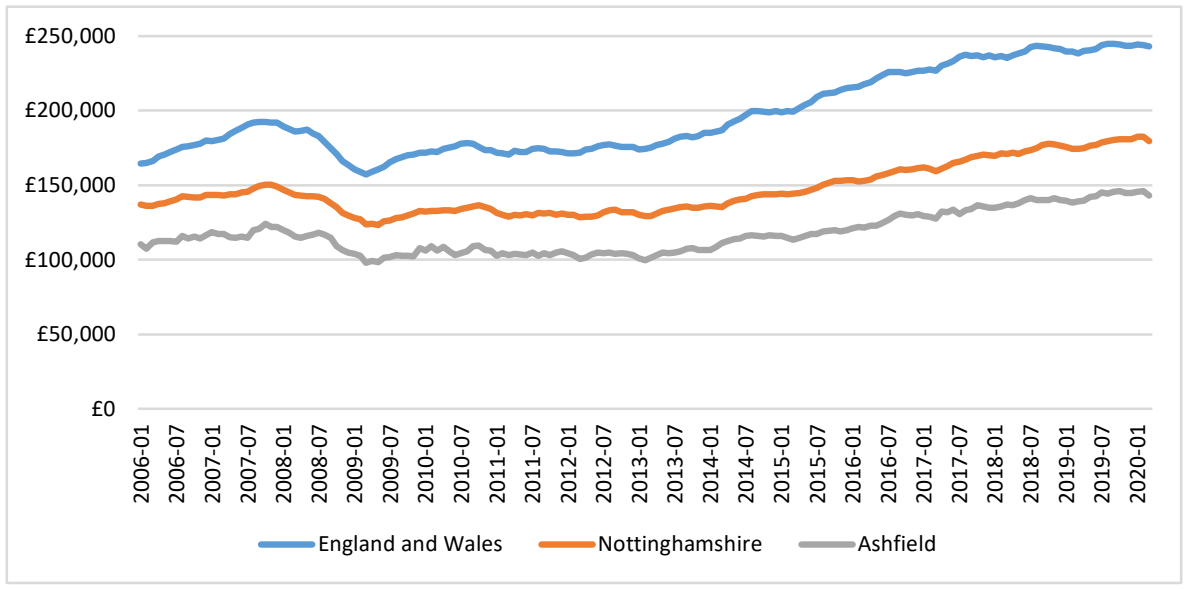
> *Ashfield is a two tier Authority with District status situated in the county of Nottinghamshire. The district covers an area of 110 Sq KM and is located on the western side of Nottinghamshire. It has an estimated population of 119,500 (data taken from National Census, 2011).*
>
> *The majority of the population are concentrated within the three main towns of Sutton in Ashfield, Hucknall and Kirkby in Ashfield together with three large villages in the substantial rural area mainly to the west of the M1.*
>
> *The main settlements share strong historic, economic and cultural links based around the growth and subsequent decline of coal mining, textiles and engineering industries. This is reflected in Ashfield's rank as 63rd most deprived area in England out of 326 Local Authorities (IMD 2010), and the 7th most deprived area in the East Midlands.*
>
> *The district has excellent communication corridors through the A38 and Junctions 27 and 28 of the M1 motorway, and is also within close proximity of the East Midlands Airport. The Robin Hood Railway Line runs north to south with three stations in Ashfield connecting with Nottingham city centre and Worksop. The central location means that over 70% of the nation's population can be reached within three hours.*
>
> *Ashfield was previously an assisted area offering Government regional selective assistance and enterprise grants. This provided new opportunities for business investment in the form of the extensive and well developed industrial sites, predominately around Sherwood Park which is close to Junction 27 of the M1. The park now employs nearly 4,000 people with flagship employers including Zeppelin, EOn and Rolls Royce.*

4.3 Leaving aside the current coronavirus pandemic, overall, the market is perceived to be mixed, with a strong market for the right scheme in the right place. Having said this, some areas remain challenging, the relatively low house prices in some areas do make the delivery of new housing less easy.

National Trends and the relationship with the wider area

4.4 The housing market peaked late in 2007 (see the following graph) and then fell considerably in the 2007/2008 recession during what became known as the 'Credit Crunch'. Average house prices in Ashfield are now about 20% above the 2007 peak. Whilst these increases are substantial, the rates of increase are less than seen across Nottinghamshire (25%) or England and Wales (36%).

Figure 4.1 Average House Prices (£)



Source: Land Registry (June 2020)

4.5 Up to the pre-recession peak of the market, the long-term rise in house prices had, at least in part, been enabled by the ready availability of credit to home buyers. Prior to the increase in prices, mortgages were largely funded by the banks and building societies through deposits taken from savers. During a process that became common in the 1990s, but took off in the early part of the 21st Century, many financial institutions changed their business model whereby, rather than lending money to mortgagees that they had collected through deposits, they entered into complex financial instruments and engineering through which, amongst other things, they borrowed money in the international money markets, to then lend on at a margin or profit. They also 'sold' portfolios of mortgages that they had granted. These portfolios also became the basis of complex financial instruments (mortgage backed securities and derivatives etc.).

4.6 During 2007 and 2008, it became clear that some financial institutions were unsustainable, as the flow of money for them to borrow was not certain. As a result, several failed and had to be rescued. This was an international problem that affected countries across the world – but most particularly in North America and Europe. In the UK, the high-profile institutions that were rescued included Royal Bank of Scotland, HBoS, Northern Rock and Bradford and Bingley. The ramifications of the recession were an immediate and significant fall in house prices, and a complete reassessment of mortgage lending with financial organisations becoming averse to taking risks, lending only to borrowers who had the least risk of default and those with large deposits.

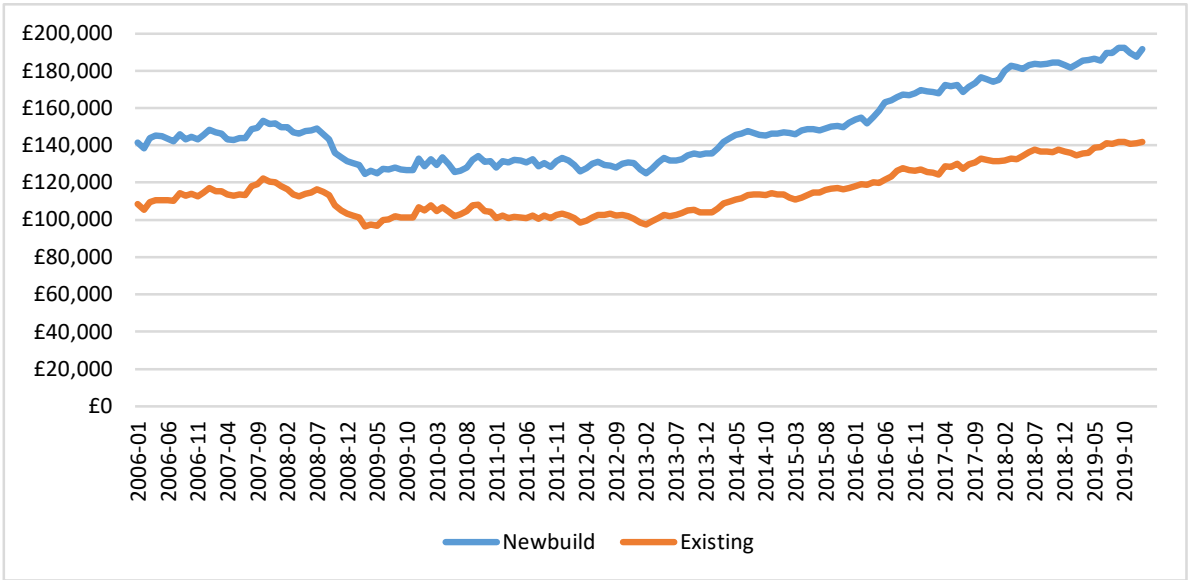
4.7 It is important to note that, at the time of this report, the housing market is actively supported by the Government through products and initiatives such as Help-to-Buy. In addition, the historically low Bank of England's base rates, since the recession, have contributed to the wider economic recovery, including a rise in house prices.

4.8 There is a degree of uncertainty in the housing market as reported by the RICS. The May 2020 RICS UK Residential Market Survey[12] said:

> *With estate agents in England being permitted to reopen on the 13th of May, the latest RICS Residential Market Survey results point to a slight improvement in the outlook for sales over the coming twelve months. That said, given the economic uncertainty caused by the pandemic, overall sentiment remains cautious.*
>
> *In terms of new buyer enquiries, the headline net balance moved from a record low of -94% in April, to post a reading of -5% in May. As such, this indicator is consistent with a much more stable demand picture over the month. Alongside this, although the newly agreed sales indicator remained in negative territory (net balance -35%), the latest reading was significantly less downbeat than that returned last month (net balance -93%). Similarly, despite a net balance of -20% of contributors reporting that new instructions coming onto the market continued to fall in May, this is noticeably less negative compared to the reading of -97% last time out. It is important to highlight that current activity metrics did not see any meaningful changes in Scotland, Northern Ireland and Wales, where restrictions on estate agents were not removed in May.*
>
> *Looking ahead, near term sales expectations turned broadly neutral in May, with the net balance coming in at -4% (up from -58% previously). Further out, twelvemonth sales expectations are now slightly positive, as a net balance of +10% of contributors now envisage sales picking up (-6% in the April results).*

4.9 The figure above shows that prices in the Ashfield District area have seen a significant recovery since the bottom of the market in mid-2009. A characteristic of the data is that the values of newbuild homes have increased faster than that for existing homes. The Land Registry shows that the average price paid for newbuild homes in ADC (£191,540) is £49,728, or 35% higher than the average price paid for existing homes (£141,812).

Figure 4.2 Change in House Prices. Existing v Newbuild – Ashfield District

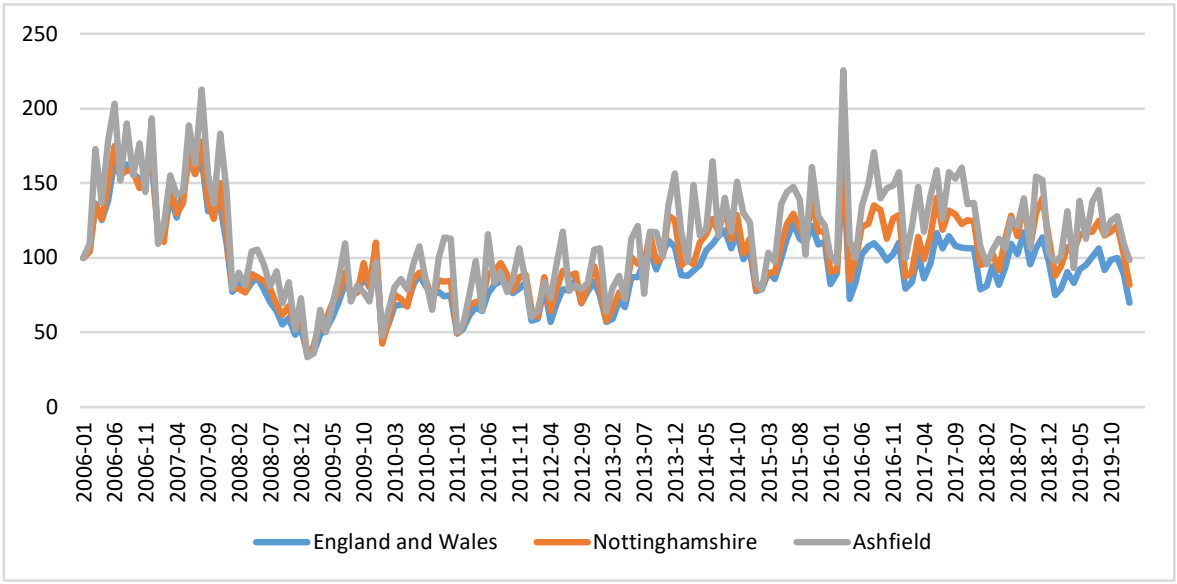


Source: Land Registry (June 2020)

[12] https://www.rics.org/uk/news-insight/research/market-surveys/uk-residential-market-survey/

4.10 The rate of sales (i.e. sales per month) in the District is a little greater than the wider country, underlining the fact that the local market is an active market.

Figure 4.3 Sales per Quarter – Indexed to January 2006



Source: Land Registry (Juny 2020)

4.11 This report is being completed after the United Kingdom has left the European Union. It is not possible to predict the impact of leaving the EU, beyond the fact that the UK and the UK economy is in a period of uncertainty. Negotiations around the details of the future relationship with the EU are underway but not concluded, so the future of trade with the EU and wider world are not yet known.

4.12 A further uncertainty is around the coronavirus pandemic. This project is being completed during the coronavirus pandemic. There are real material uncertainties around the values of property that are a direct result of the Covid 19 pandemic. It is not the purpose of this assessment to predict what the impact may be and how long the effect will last. We expect there to be a pause in activity due to uncertainty in the wider economy, evidence of this is being reported by estate agents and developers. It is likely that, at the very least, the development markets will be checked, and it is likely that house prices will fall.

4.13 A range of views as to the impact on house prices have been expressed that cover nearly the whole spectrum of possibilities. This report is carried out at current costs and values. Sensitivity testing has been carried out.

4.14 The economy is in a period of uncertainly and, whilst it is not the purpose of this assessment, it is timely to provide a forecast of how house prices and values may change in the future.

HM Treasury brings together some of the forecasts in its monthly *Forecasts for the UK economy: a comparison of independent forecasts* report[13].

Table 4.1 Consolidated House Price Forecasts

Forecasters and dates of forecasts			GDP	Quarterly GDP			Private consumption	Government consumption	Fixed investment	Inventories (contribution to GDP growth (ppt))	Domestic demand	Total exports	Total imports	Net trade (contribution to GDP growth (ppt))	Output Gap (as % of potential GDP)
City forecasters				Q1	Q2										
Bank of America - Merrill Lynch	Mar	*	0.8	0.3	0.2		1.2	4.2	-0.9	-1.4	-	-	-	0.8	-
Barclays Capital	Mar	*	-0.2	0.1	-0.8		0.1	4.3	-1.9	-3.4	-	-	-	2.7	-
Bloomberg Economics	Jan		1.3	0.4	-		1.6	0.9	1.6	-	-	3.2	1.3	0.5	-0.5
Capital Economics	Mar	*	-1.0	0.0	-2.5		-	-	-	-	-	-	-	-	-
Citigroup	Feb		0.7	0.3	0.3		0.9	1.8	1.1	-0.9	0.2	3.1	1.1	0.6	-
Commerzbank	Mar	*	0.1	0.1	-0.6		0.6	3.7	-2.5	-0.3	0.2	-1.3	-1.4	0.0	-0.4
Daiwa Capital Markets	Jan		0.8	0.3	-		1.1	1.7	0.4	-1.8	1.1	7.4	1.5	1.5	-0.3
Deutsche Bank	Mar	*	0.5	0.1	-0.2		0.5	2.8	-0.4	-	-	-	-	-	-
Goldman Sachs	Jan 19'		1.5	-	-		0.8	1.4	1.8	-	1.2	0.8	0.7	-	-
HSBC	Mar	*	1.1	0.3	0.4		1.0	4.1	1.2	-	-0.2	3.0	-1.4	-	-
ING Financial Markets	Jan		1.2	0.3	-		1.4	1.3	0.3	-	0.7	2.1	0.3	0.5	-
JP Morgan	Mar	*	0.6	0.3	-0.3		1.0	4.1	-	-3.1	1.0	4.8	-3.3	2.5	-
Morgan Stanley	Jan		1.4	0.3	-		1.3	3.0	2.2	-0.3	1.8	1.4	1.3	0.0	0.1
Natwest Markets	Feb		1.2	0.2	0.4		1.3	3.5	0.2	-	0.3	0.8	-2.0	0.9	-0.5
Nomura	Dec		1.0	0.2	-		1.6	2.6	0.2	0.1	1.1	2.4	2.0	0.1	-
Pantheon	Mar	*	-0.2	-0.2	-1.5		-0.1	4.0	-1.8	-0.3	0.0	-1.0	-0.3	-0.2	-
Santander GBM	Dec		1.0	0.2	-		1.4	1.4	0.9	-0.7	0.0	2.9	-0.5	1.0	-0.7
Schroders Investment Management	Feb		0.9	-	-		1.3	-	1.3	-	-	-	-	-	-
Societe Generale	Feb		0.7	0.3	0.3		0.9	2.1	0.1	-0.9	-0.6	4.1	-0.5	1.4	-0.5
UBS	Mar	*	0.5	0.5	1.0	YoY	0.8	3.2	-1.3	-2.7	-1.8	5.9	-1.6	2.3	-
Non-City forecasters															
British Chambers of Commerce	Jan		1.1	0.3	-		1.3	3.0	0.3	-	-	1.1	1.4	-	-
Beacon Economic Forecasting	Mar	*	1.2	0.3	0.7		1.8	3.8	-0.1	-0.4	1.8	2.6	3.4	-0.5	-
Cambridge Econometrics	Aug		1.3	-	-		2.1	1.4	2.1	-	-	1.8	3.1	-	-
CBI	Mar	*	1.2	0.3	0.4		1.2	2.0	0.7	-0.4	0.4	1.8	-1.0	0.8	-0.3
CEBR	Feb		1.5	-	-		1.5	1.9	3.1	0.5	1.5	0.5	0.3	0.0	-
Economic Perspectives	Feb		1.1	0.2	0.5		0.4	4.0	1.7	0.3	0.4	-1.2	-2.3	0.4	-
Experian Economics	*Jan*		*1.1*	*0.3*	-		*1.3*	*1.0*	*1.6*	*-0.8*	0.5	2.1	-1.2	1.0	-
EIU	Mar	*	0.8	0.2	0.0		0.0	3.6	-0.7	0.4	1.0	-1.7	-1.1	-0.2	-0.4
Heteronomics	Mar	*	0.7	0.2	0.0		1.3	2.8	-2.9	-1.1	0.9	-1.9	-4.8	0.9	0.2
IHS Markit Economics	Oct		0.5	-	-		0.7	1.5	-2.4	-	0.3	0.5	-1.5	-	-
ITEM Club	Mar	*	0.5	0.1	-0.1		0.9	2.7	0.0	-	0.2	-0.1	-1.2	0.3	-
Kern Consulting	Mar	*	0.9	-	-		1.1	1.3	0.8	0.1	1.1	-	-	-	0.0
Liverpool Macro Research	Mar	*	1.9	-	-		1.4	0.6	-7.1	-	-	-	-	-	-
NIESR	Feb		1.3	0.3	0.6		1.1	0.8	2.2	-0.3	1.0	1.8	0.5	0.4	-
Oxford Economics	Feb		1.0	0.2	0.3		1.6	1.2	1.1	0.3	1.6	-2.6	-0.5	-0.6	-0.7
PwC	Dec		1.0	-	-		1.4	2.7	-0.5	-	-	3.3	0.0	-	-
European Commission	Feb		1.2	0.4	0.4		-	-	-	-	-	-	-	-	-
OECD	Mar	*	0.8	-	-		1.0	1.0	0.0	-1.5	-0.3	1.2	-2.8	1.3	-
IMF	Oct		1.4	-	-		-	-	-	-	-	-	-	-	-
Average of forecasts made in the last 3 months															
Independent			0.8	0.2	-0.1		1.0	2.6	0.0	-0.9	0.6	1.5	-0.6	0.7	-0.3
New (marked *)			0.6	0.2	-0.3		0.9	3.0	-1.1	-1.2	0.4	1.2	-1.4	0.9	-0.2
City			0.6	0.2	-0.4		0.9	3.0	0.0	-1.5	0.2	2.8	-0.4	1.0	-0.3
Range of forecasts made in the last 3 months															
Highest			1.9	0.4	0.7		1.8	4.3	3.1	0.5	1.8	7.4	3.4	2.7	0.2
Lowest			-1.0	-0.2	-2.5		-0.1	0.6	-7.1	-3.4	-1.8	-2.6	-4.8	-0.6	-0.7
Median			0.9	0.3	0.2		1.1	2.8	0.3	-0.4	0.5	1.6	-0.8	0.6	-0.4
OBR	Mar		1.1	0.2	0.4		1.1	3.7	-0.8	-0.1	1.1	-0.6	-0.2	-0.2	-0.1

Source: *Forecasts for the UK economy: a comparison of independent forecasts* No 392 (HM Treasury, March 2020. Table 2 - 2020: Growth in prices and monetary indicators (% change)

4.15 There is clearly uncertainty in the market, and it is not for this study to try to predict how the market may change in the coming years, and whether or not there will be a further increase in house prices. Generally, the expectation is that house prices return to growth relatively quickly.

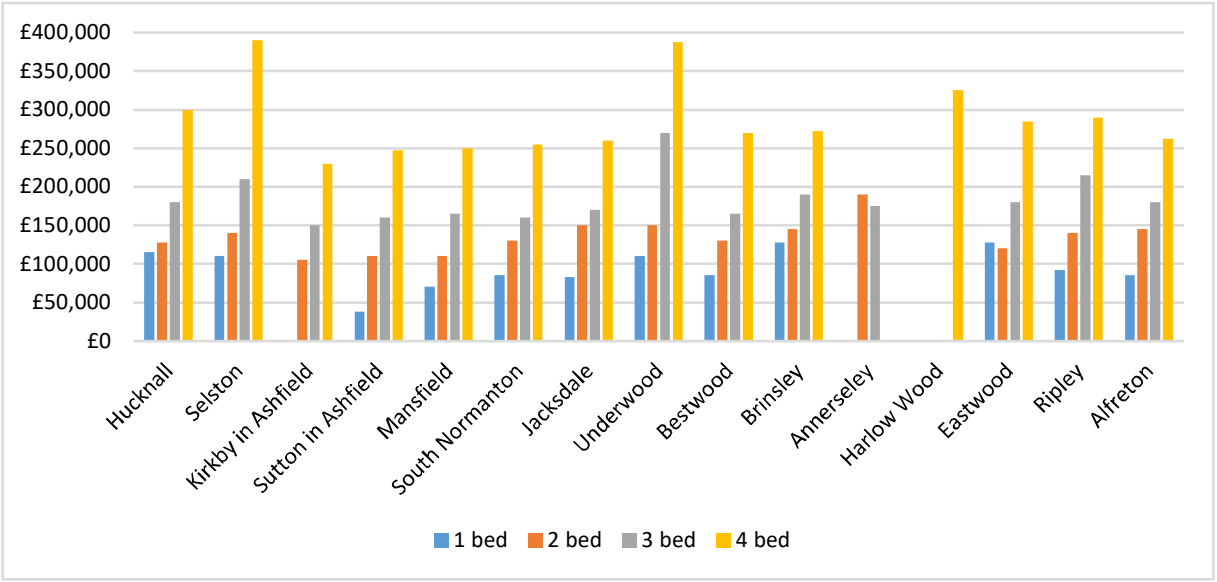
[13] No 392 March 2020.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/873264/Forecomp_March_2020f.pdf

The Local Market

4.16 There are few large development sites that are comparable to the potential new settlements in nearby. To ensure that the value assumptions are well based, a survey of asking prices across the wider area was carried out in June 2020. Through using online tools such as rightmove.co.uk and zoopla.co.uk, median asking prices were estimated.

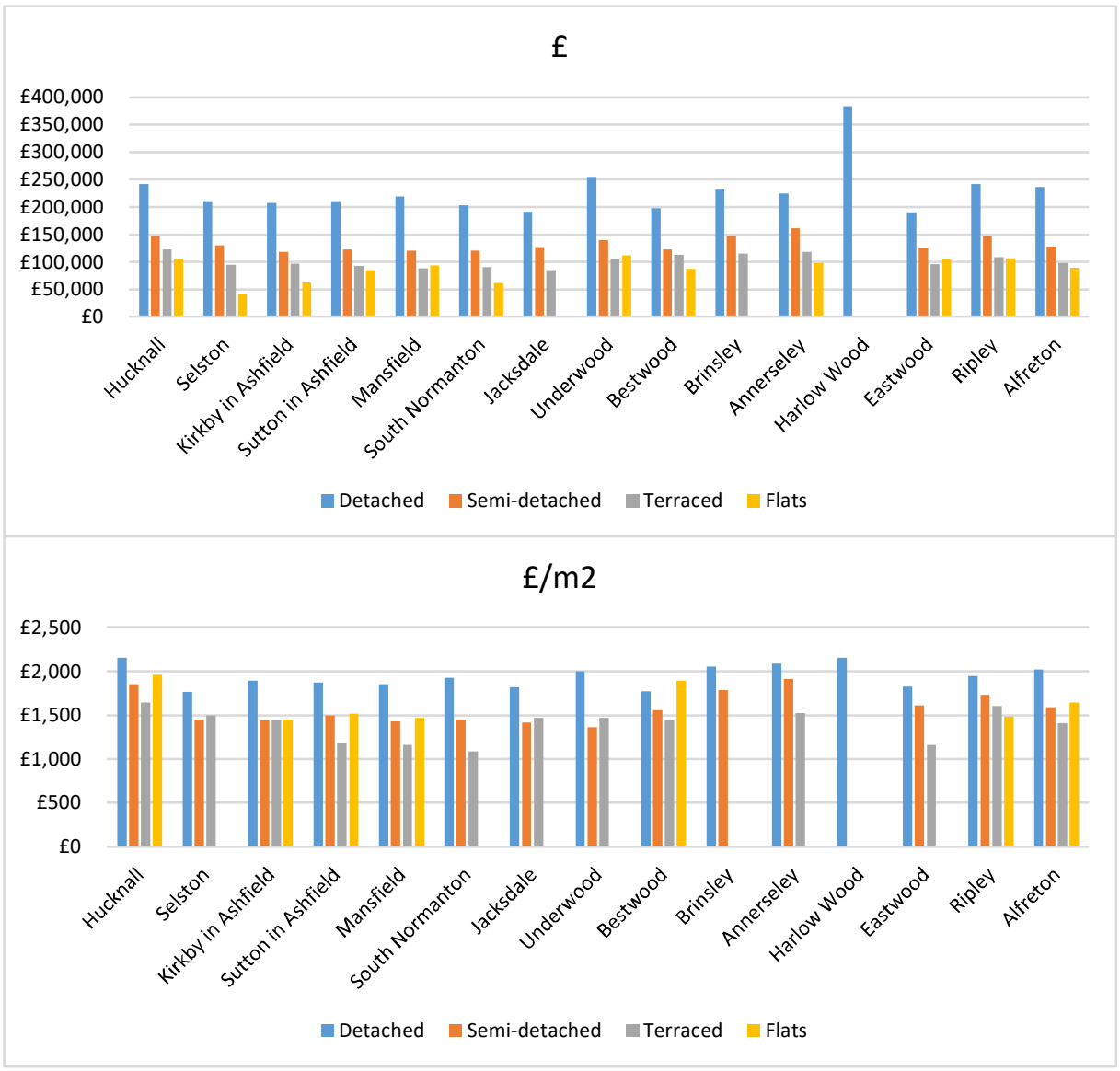
Figure 4.4 Median Asking Prices (£)



Source: Rightmove.co.uk (June 2020)

4.17 It is important to note that the above are asking prices and that they reflect the seller's aspiration of value, rather than the value, they are however a useful indication of how prices vary across areas.

Figure 4.5 Values (£/m²)



Source: Zoopla.co.uk (June 2020)

4.18 The Land Registry publishes data of all homes sold. Across the wider area, 1,864 home sales are recorded since the start of 2019[14]. These transactions (as recorded by the Land Registry) are summarised as follows – these are sorted by 'post town' as per the Land Registry dataset.

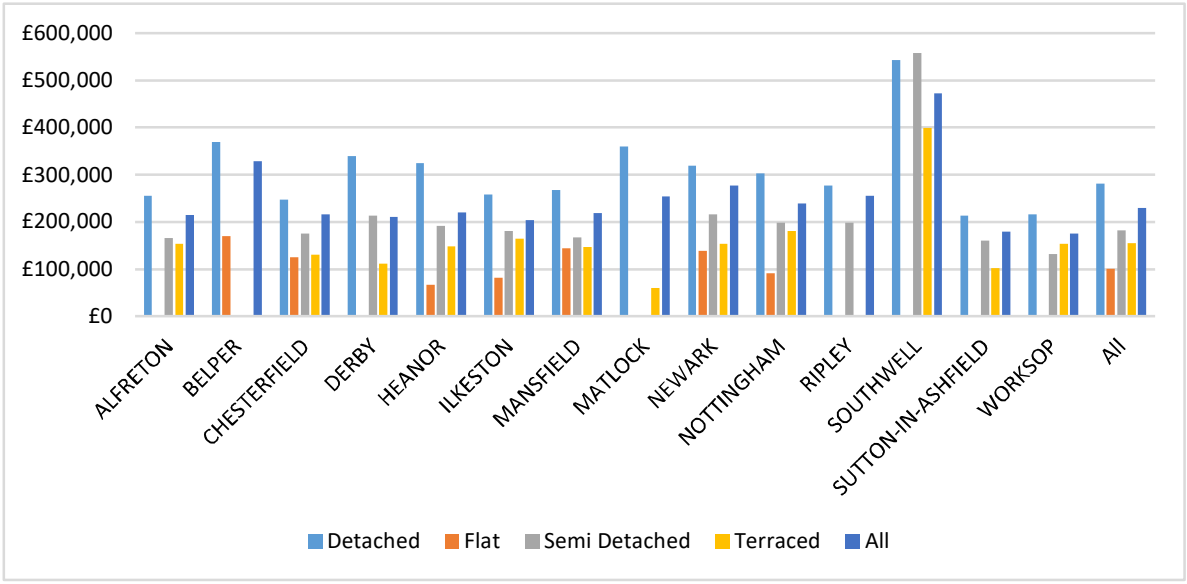
[14] The Land Registry makes all transactions available as and when they are registered via the 'beta' format tool at https://www.gov.uk/government/statistical-data-sets/price-paid-data-downloads. It does take some time for transactions to be registered – we estimate this to be about 4 to 6 months.

Table 4.2 Average Price Paid by Post Town and Year

	Detached		Flat		Semi Detached		Terraced		All	
	Count	Average	Count	Average	Count	Average	Count	Average	Count	Average
ALFRETON	124	£255,165	0		85	£165,783	16	£154,306	225	£214,226
BELPER	4	£369,123	1	£169,995	0		0		5	£329,297
CHESTERFIELD	57	£247,384	1	£124,995	37	£175,571	3	£130,496	98	£215,444
DERBY	9	£338,855	0		10	£213,337	12	£111,886	31	£210,506
HEANOR	15	£324,340	6	£66,667	10	£191,240	5	£148,450	36	£219,993
ILKESTON	58	£257,995	10	£81,426	44	£180,611	22	£164,087	134	£203,991
MANSFIELD	257	£267,904	13	£143,992	145	£167,889	58	£146,790	473	£218,987
MATLOCK	22	£359,563	0		0		12	£60,000	34	£253,835
NEWARK	135	£318,640	4	£138,250	60	£216,686	11	£153,064	210	£277,401
NOTTINGHAM	245	£303,141	42	£91,749	140	£198,939	64	£180,616	491	£239,377
RIPLEY	32	£276,697	0		12	£198,161	0		44	£255,278
SOUTHWELL	3	£543,333	0		1	£557,500	4	£398,875	8	£472,875
SUTTON-IN-ASHFIELD	20	£213,986	0		3	£159,980	8	£102,688	31	£180,037
WORKSOP	42	£215,638	0		36	£132,067	5	£153,395	83	£175,641
All	1,023	£281,491	77	£101,138	583	£181,727	220	£155,528	1,903	£229,067

Source: Land Registry (June 2020) Contains HM Land Registry data © Crown copyright and database 2020. This data is licensed under the Open Government Licence v3.0

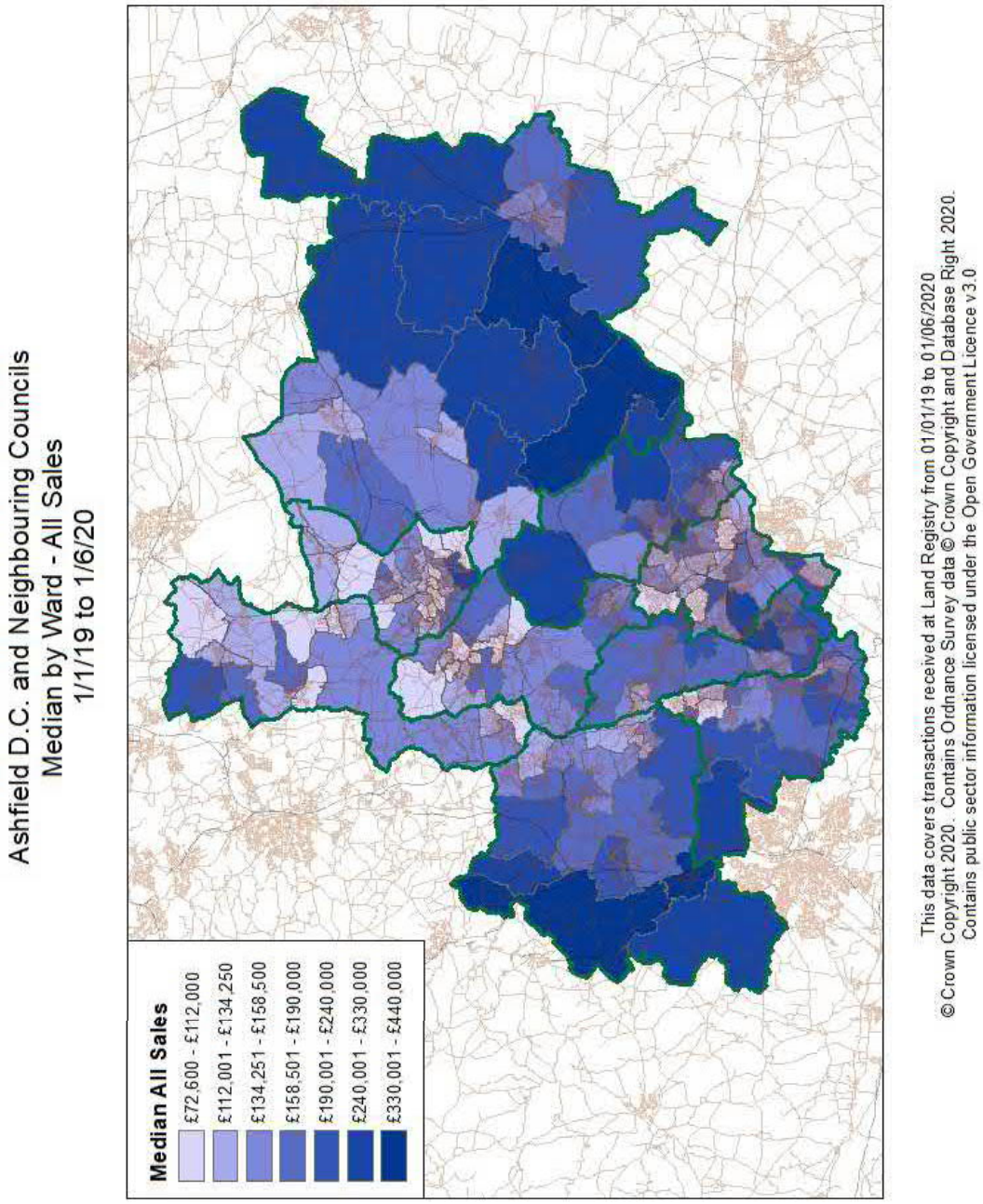
Figure 4.6 Land Registry Price Paid Data



Source: Land Registry (June 2020) Contains HM Land Registry data © Crown copyright and database 2020. This data is licensed under the Open Government Licence v3.0

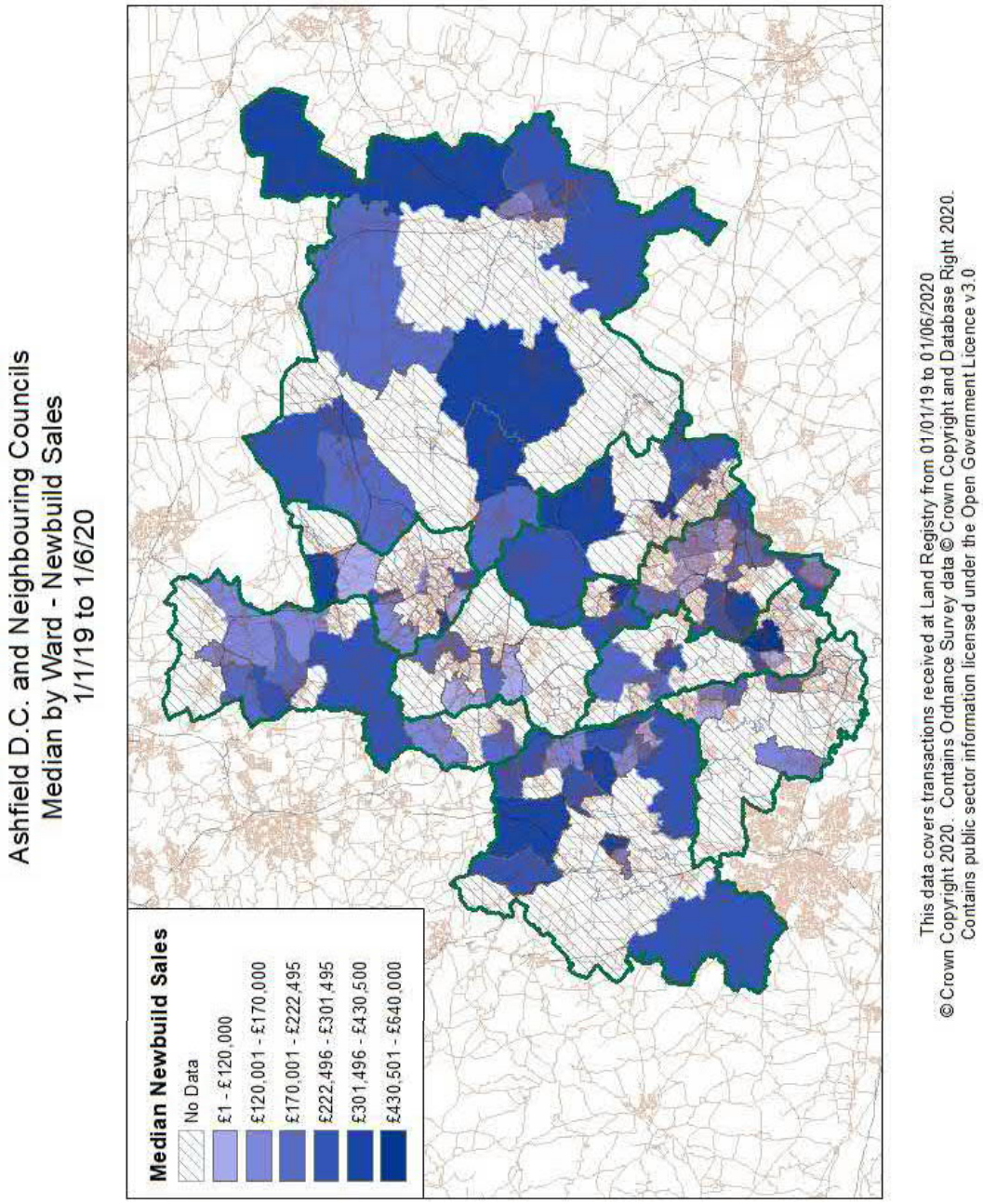
4.19 The geographical differences in prices are illustrated in the following maps showing the median price by ward, the first being for all properties and the second just for newbuild.

Figure 4.7 Land Registry Price Paid Data By Ward - All



Source: Land Registry (June 2020) Contains HM Land Registry data © Crown copyright and database 2020. This data is licensed under the Open Government Licence v3.0

Figure 4.8 Land Registry Price Paid Data by Ward - Newbuild



Source: Land Registry (June 2020) Contains HM Land Registry data © Crown copyright and database 2020. This data is licensed under the Open Government Licence v3.0

4.20 The above Land Registry data is for newbuild sales. Each dwelling sold requires an Energy Performance Certificate (EPC)[15]. The EPC contains the floor area (the Gross Internal Area – GIA) as well as a wide range of other information about the construction and energy performance of the building.

4.21 The price paid data from the Land Registry has been married with the floor area from the EPC Register.

4.22 The Land Registry data can be broken down by house type and is summarised as follows.

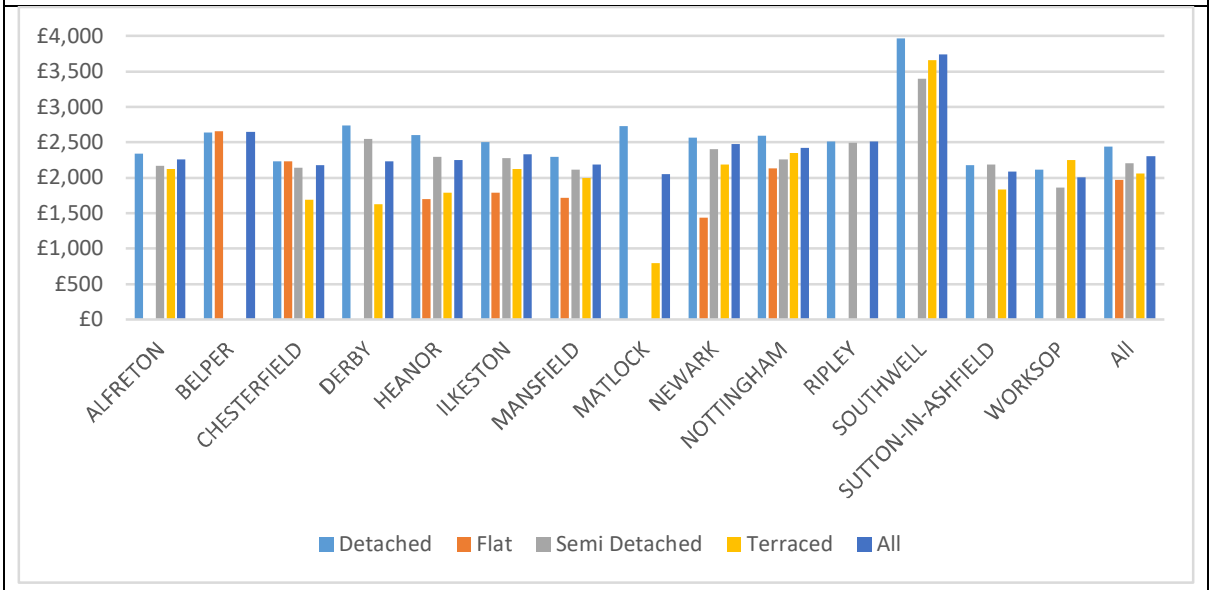
[15] https://www.epcregister.com/

Table 4.3 Prices Paid – Newbuild Homes

	Detached		Flat		Semi Detached		Terraced		All	
	Count	Average	Count	Average	Count	Average	Count	Average	Count	Average
ALFRETON	120	£2,336	0		83	£2,170	16	£2,122	219	£2,258
BELPER	4	£2,640	1	£2,656	0		0		5	£2,644
CHESTERFIELD	56	£2,231	1	£2,232	37	£2,143	3	£1,688	97	£2,181
DERBY	8	£2,739	0		10	£2,545	12	£1,627	30	£2,229
HEANOR	15	£2,601	6	£1,701	10	£2,297	5	£1,786	36	£2,253
ILKESTON	56	£2,501	6	£1,785	43	£2,277	18	£2,124	123	£2,333
MANSFIELD	251	£2,299	13	£1,715	144	£2,114	58	£1,993	466	£2,187
MATLOCK	22	£2,730	0		0		12	£793	34	£2,047
NEWARK	135	£2,567	4	£1,440	57	£2,399	11	£2,188	207	£2,479
NOTTINGHAM	240	£2,590	42	£2,134	137	£2,255	63	£2,348	482	£2,424
RIPLEY	32	£2,512	0		12	£2,495	0		44	£2,507
SOUTHWELL	3	£3,967	0		1	£3,399	4	£3,657	8	£3,741
SUTTON-IN-ASHFIELD	20	£2,175	0		3	£2,183	8	£1,836	31	£2,088
WORKSOP	41	£2,113	0		36	£1,858	5	£2,252	82	£2,009
All	1,003	£2,437	73	£1,965	573	£2,204	215	£2,062	1,864	£2,304

Source: Land Registry and EPC Register (June 2020) Contains HM Land Registry data © Crown copyright and database 2020. This data is licensed under the Open Government Licence v3.0.

Figure 4.9 Average Price Paid - Newbuild



Source: Land Registry and EPC Register (June 2020) Contains HM Land Registry data © Crown copyright and database 2020. This data is licensed under the Open Government Licence v3.0.

4.23 The average price paid is £2,304/m^2. Care should be taken when considering the disaggregated data as some of the sample sizes are small.

4.24 The above data shows variance across the area, however it necessary to consider the reason for that variance. An important driver of the differences is the situation rather than the location of a site. Based on the existing data, the value will be more influenced by the specific site characteristics, the immediate neighbours and the environment, as well as the town where the scheme is located.

4.25 At the time of this research (June 2020) there were 271 new homes for sale in the wider area. The analysis of these shows that asking prices for newbuild homes vary very considerably, starting at £113,000 and going up to £1,150,000. The average is £286,000. These are summarised in the following table.

Table 4.4 Summary of Newbuild Asking Prices

	Detached			Flat			Semi Detached			Terraced			All		
	Count	£	£/m2	Count	£	£/m2	Count	£	£/m2	Count	£	£/m2	Count	£	£/m2
Alfreton	9	£369,978	£2,567	0			1	£150,000		0			10	£347,980	£2,567
Ashover	2	£489,950	£2,497	0			0			0			2	£489,950	£2,497
Barlborough	0			0			2	£167,500	£2,361	1	£165,000	£2,248	3	£166,667	£2,323
Bolsover	8	£373,491	£2,177	0			6	£197,497	£2,628	1	£136,000	£2,345	15	£287,261	£2,374
Chesterfield	57	£303,995	£2,587	0			20	£201,897	£2,286	4	£174,750	£2,117	81	£272,403	£2,495
Clay Cross	4	£260,000	£2,792	0			0			0			4	£260,000	£2,792
Clipstone	0			0			4	£208,495	£2,364	0			4	£208,495	£2,364
Clowne	3	£518,662	£2,877	0			1	£194,950	£2,096	0			4	£437,734	£2,682
Cresswell	5	£223,195	£2,212	0			5	£149,995	£2,142	0			10	£186,595	£2,177
Derby	5	£250,396	£2,585	0			2	£218,495	£2,445	0			7	£241,281	£2,545
Eckington	1	£320,000	£2,319	0			2	£270,000	£2,304	0			3	£286,667	£2,312
Edwinstowe	3	£362,995	£2,292	0			5	£191,880	£3,366	0			8	£256,048	£3,059
Heanor	0			0			1	£175,000		0			1	£175,000	
Hucknall	3	£250,328	£2,269	0			0			1	£161,995	£2,571	4	£228,245	£2,344
Ilkeston	1	£199,995	£2,381	0			2	£205,495	£2,414	2	£164,998	£2,500	5	£188,196	£2,427
Kimberley	0			2	£169,500	£2,587	0			2	£287,500	£2,291	4	£228,500	£2,439
Linby	7	£362,357	£2,661	0			0			0			7	£362,357	£2,661
Mansfield	33	£306,861	£2,264	0			6	£270,246	£2,497	2	£145,995	£2,027	41	£293,655	£2,292
Matlock	2	£365,000	£3,380	0			4	£236,000	£2,650	1	£218,500		7	£270,357	£3,015
Oakerthorpe	3	£648,333	£2,494	0			0			0			3	£648,333	£2,494
Ravenshead	4	£554,950		0			0			0			4	£554,950	
Riddings	0			0			0			2	£148,995	£2,403	2	£148,995	£2,403
Ripley	5	£288,996	£2,432	0			3	£175,000	£2,284	0			8	£246,248	£2,368
Rufford	1	£1,150,000	£3,513	0			0			0			1	£1,150,000	£3,513
Sheffield	1	£343,995	£2,372	0			3	£223,995	£2,631	0			4	£253,995	£2,566
Shipley	1	£359,950	£2,880	0			0			0			1	£359,950	£2,880
Shirebrook	4	£177,371	£2,168	0			4	£161,371	£2,098	0			8	£169,371	£2,138
South Normanton	1	£264,995	£2,345	0			4	£195,723	£2,300	0			5	£209,577	£2,309
Swanwick	1	£525,000	£2,514	0			0			0			1	£525,000	£2,514
Trowell	1	£425,000		0			0			0			1	£425,000	
Walton	1	£520,000	£3,245	0			0			0			1	£520,000	£3,245
Wingerworth	6	£307,417	£2,702	0			2	£226,250	£2,702	0			8	£287,125	£2,702
Worksop	4	£389,495	£2,276	0			0			0			4	£389,495	£2,276
All	**176**	**£333,255**	**£2,501**	**2**	**£169,500**	**£2,587**	**77**	**£203,280**	**£2,437**	**16**	**£179,717**	**£2,278**	**271**	**£286,051**	**£2,471**

Source: Market Survey (June 2020)

4.26 During the course of the research, sales offices and agents were contacted to enquire about the price achieved relative to the asking prices, and the incentives available to buyers. In most cases the feedback was that the units were 'realistically priced' or that, as there is strong demand, significant discounts are not available. When pressed, it appeared that the discounts and incentives offered equate to about 2.5% of the asking prices. It would be prudent to assume that prices achieved, net of incentives offered to buyers, are 2.5% less than the above asking prices.

Price Assumptions for Financial Appraisals

4.27 In the Council's 2016 viability work the following assumptions were used:

Table 4.5 2016 Residential Value Assumptions

Residential Sales Values					
	Sales Value £ / SqM				
Sub-Market	Apartment	2 Bed	3 Bed	4 Bed	5 Bed
1 Low	1600	1900	1850	1800	1800
2 High	1950	2100	2000	1950	1950

Source: Ashfield District Council Whole Plan & Community Infrastructure Levy Viability Assessment (NCS, July 2016)

4.28 As set out earlier, average house prices have increased markedly since then. It is necessary to form a view about the appropriate prices for the schemes to be appraised in the study. The preceding analysis does not reveal simple clear patterns with sharp boundaries. It is necessary to relate this to the pattern of development expected to come forward in the future. Bringing together the evidence above (which we acknowledge is varied), an assumption of £2,300/m^2 is assumed.

4.29 This is based on the prices paid, the asking prices from active developments, and informed by the general pattern of all house prices across the study area.

Ground Rents

4.30 Over the last 20 or so years many new homes have been sold subject to a ground rent. Such ground rents have recently become a controversial and political topic. In this study, no allowance is made for residential ground rents[16].

Affordable Housing

4.31 The Council's adopted Plan and emerging Plan require affordable housing.

[16] In October 2018 the Communities Secretary announced that majority of newbuild houses should be sold as freehold and new leases to be capped at £10. https://www.gov.uk/government/news/communities-secretary-signals-end-to-unfair-leasehold-practices

4.32 In this assessment a range of requirements are tested. In line with the Council's current requirements this is assumed to be 2/3 Starter Homes, and 1/3 Affordable Rent.

4.33 In this study it is assumed that such housing is constructed by the site developer and then sold to a Registered Provider (RP). This is a simplification of reality as there are many ways in which Affordable Housing is delivered, including the transfer of free land to RPs for them to build on, or the retention of the units by the scheme's overall developer.

Affordable Housing Values

4.34 Prior to the Summer 2015 Budget, Affordable Rents were set at up to 80% of open market rent and generally went up, annually, by inflation (CPI) plus 1%, and Social Rents were set through a formula, again with an annual inflation plus 1% increase. Under arrangements announced in 2013, these provisions were to prevail until 2023, and formed the basis of many housing associations' and other providers' business plans. Housing associations knew their rents would go up and those people and organisations who invest in such properties (directly or indirectly) knew that the rents were going up year on year. This made them attractive as each year the rent would always be a little more relative to inflation.

4.35 In the 2015 Budget, it was announced that Social Rents and Affordable Rents would be reduced by 1% per year for 4 years. This change reduced the value of Affordable Housing. In October 2017 the Government announced that Rents will rise by CPI +1% for five years from 2020. The values of Affordable Housing have been re-considered.

Social Rent

4.36 The value of a social rented property is a factor of the rent – although the condition and demand for the units also have an impact. Social Rents are set through a national formula that smooths the differences between individual properties and ensures properties of a similar type pay a similar rent:

Table 4.6 General needs (Social Rent) Ashfield					
Average weekly net rent (£ per week) by unit size for Ashfield - Large PRPs				£ per week	
Unit Size	**Net rent**	**Social rent rate**	**Service charge^**	**Gross rent^**	**Unit count**
Non-self-contained	£0.00	£0.00	£0.00	£0.00	£0.00
Bedsit	£0.00	£0.00	£0.00	£0.00	£0.00
1 Bedroom	£69.55	£66.75	£12.59	£81.99	£85.00
2 Bedroom	£83.93	£82.18	£4.88	£86.74	£647.00
3 Bedroom	£89.67	£88.08	£3.92	£90.94	£607.00
4 Bedroom	£109.89	£108.26	£3.92	£112.11	£23.00
5 Bedroom	£0.00	£0.00	£0.00	£0.00	£0.00
6+ Bedroom	£0.00	£0.00	£0.00	£0.00	£0.00
All self-contained	£86.03	£84.30	£5.55	£88.74	£1,362.00
All stock sizes	£86.03	£84.30	£5.55	£88.74	£1,362.00
Owned stock. Large PRPs only - unweighted. Excludes Affordable Rent and intermediate rent, but includes other units with an absolute exception for the WRWA 2016. Stock outside England is excluded.					

Source: Table 9, RSH SDR 2019 – Data Tool[17]

4.37 This study concerns only the value of newly built homes. There seems to be relatively little difference in the amounts paid by RPs for such units across the area. In this study, the value of Social Rents is assessed assuming 10% management costs, 4% voids and bad debts and 6% repairs. These are capitalised at 4.5%.

Table 4.7 Capitalisation of Social Rents				
	1 Bedroom	2 Bedrooms	3 Bedrooms	4 Bedrooms
Gross Rent (£/week)	£70	£84	£90	£110
Gross Rent (£/annum)	£3,617	£4,364	£4,663	£5,714
Net Rent	£2,893	£3,491	£3,730	£4,571
Value	£80,369	£96,986	£103,619	£126,984
m^2	50	70	84	97
£/m^2	£1,607	£1,386	£1,234	£1,309

Source: HDH (April 2020)

4.38 On this basis, a value of £1,384/m^2 across the study area is assumed.

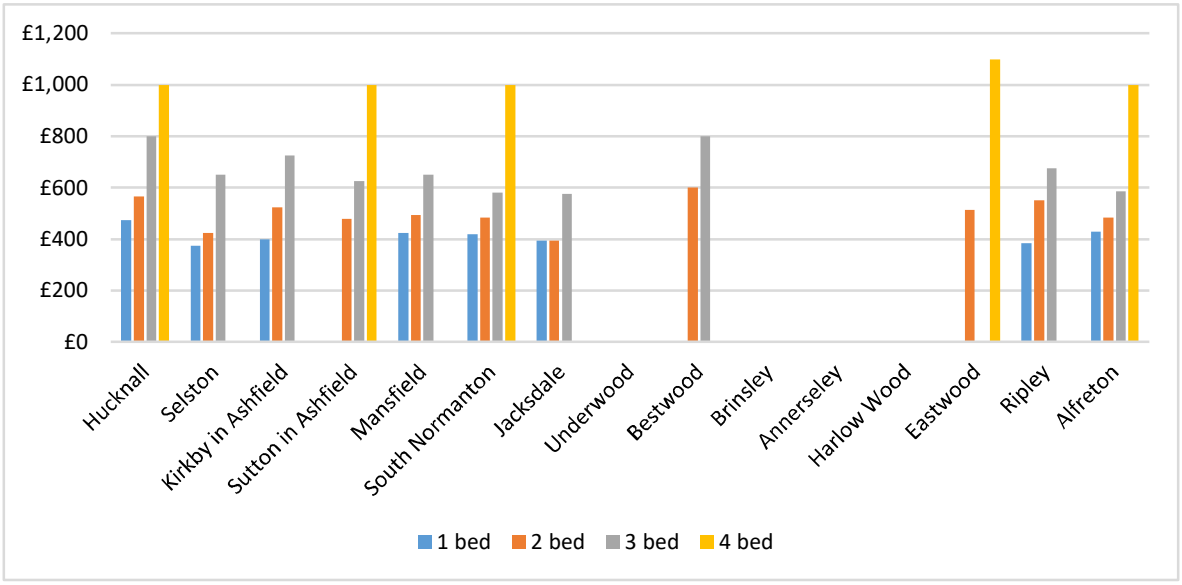
[17] https://www.gov.uk/government/statistics/statistical-data-return-2018-to-2019

Affordable Rent

4.39 The Government introduced Affordable Rent in 2010 as a 'new' type of Affordable Housing. Under Affordable Rent, a rent of no more than 80% of the market rent for that unit can be charged. In the development of Affordable Housing for rent, the value of the units is, in large part, the worth of the income that the completed let unit will produce. This is the amount an investor (or another RP) would pay for the completed unit.

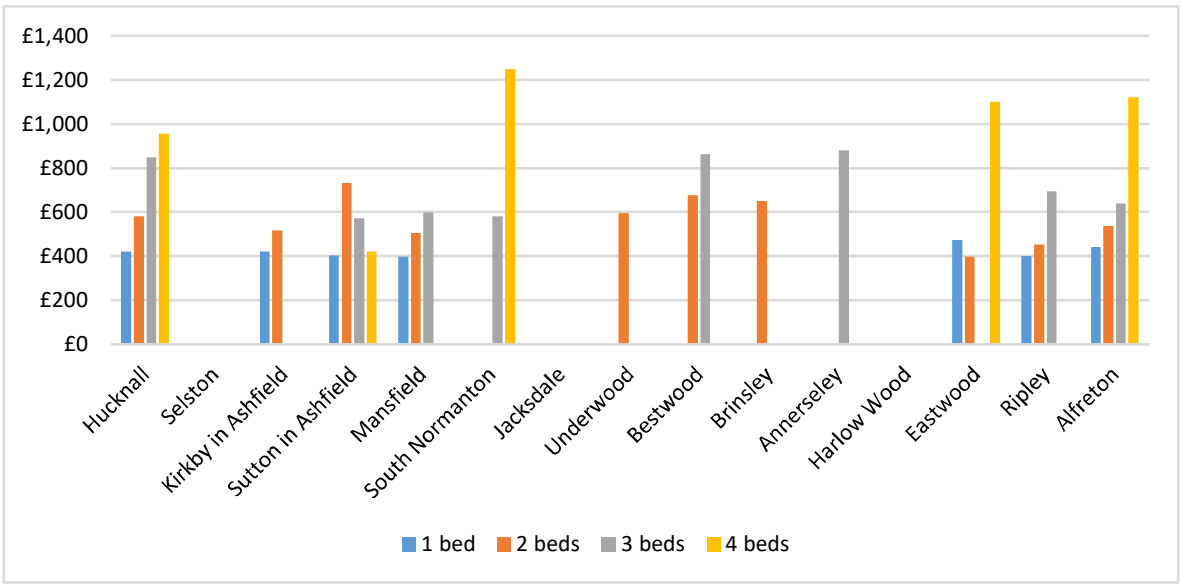
4.40 In estimating the likely level of Affordable Rent, a survey of market rents has been undertaken.

Figure 4.10 Market Rents (£/month)



Source: Rightmove (June 2020)

Figure 4.11 Market Rents (£/month)



Source: Zoopla (June 2020)

4.41 As part of the reforms to the social security system, housing benefit /local housing allowance is capped at the 3rd decile of open market rents for that property type, so in practice Affordable Rents are unlikely to be set above these levels. The cap is set by the Valuation Office Agency (VOA) by Broad Rental Market Area (BRMA). Where this is below the level of Affordable Rent at 80% of the median rent, it is assumed that the Affordable Rent is set at the LHA Cap.

Table 4.8 BRMA LHA Caps (£/week) - Nottingham	
Shared Accommodation	£66.50
One Bedroom	£80.55
Two Bedrooms	£103.56
Three Bedrooms	£109.32
Four Bedrooms	£155.34

Source: VOA (June 2020)

4.42 These caps are generally similar to the Affordable Rents being charged as reported in the most recent HCA data release (although this data covers both newbuild and existing homes).

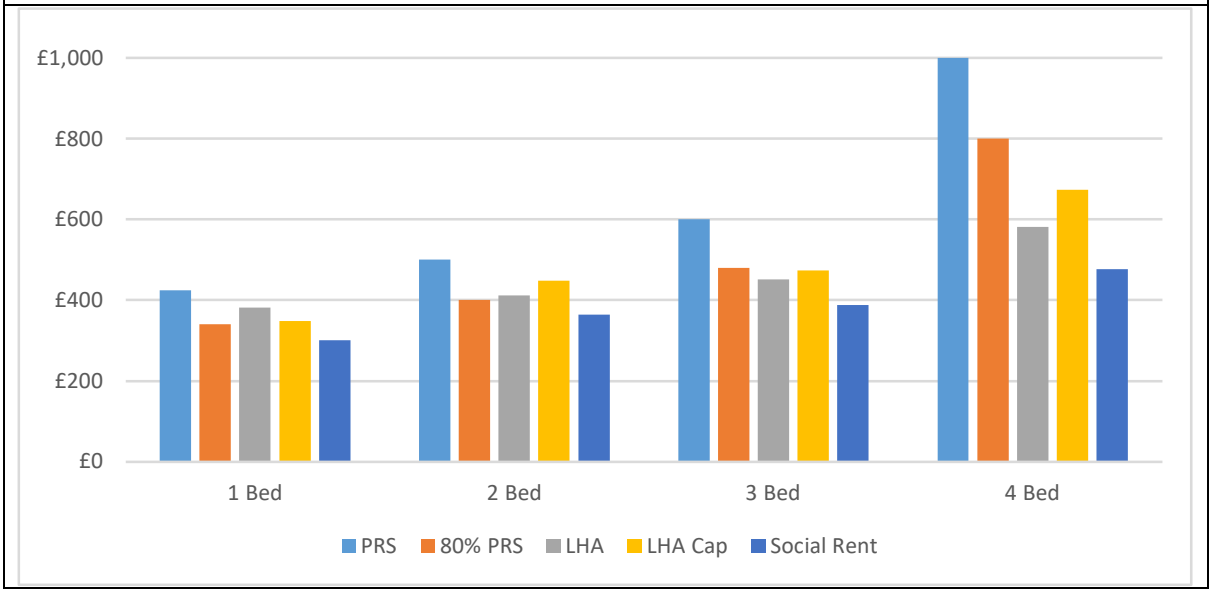
Table 4.9 Affordable Rent General Needs - Ashfield		
Average weekly gross rent (£ per week) and unit counts by unit size for Ashfied	**£ per week**	
Unit Size	**Gross rent**	**Unit count**
Non-self-contained	£0.00	£0.00
Bedsit	£0.00	£0.00
1 Bedroom	£87.97	£18.00
2 Bedroom	£94.94	£95.00
3 Bedroom	£104.32	£73.00
4 Bedroom	£134.32	£1.00
5 Bedroom	£0.00	£0.00
6+ Bedroom	£0.00	£0.00
All self-contained	£98.14	£187.00
All stock sizes	£98.14	£187.00
Owned stock. All PRPs owning Affordable Rent units - unweighted. Stock outside England is excluded.		

Source: Table11, RSH SDR 2019 – Data Tool[18]

4.43 The rents can be summarised as follows.

[18] https://www.gov.uk/government/statistics/statistical-data-return-2018-to-2019

Figure 4.12 Rents by Tenure – £/Month



Source: Market Survey, HCA Statistical Return and VOA (June 2020)

4.44 In calculating the value of Affordable Rent we have allowed for 10% management costs, 4% voids and bad debts and 6% repairs, and capitalised the income at 4.5%. It is assumed that the Affordable Rent is no more than the LHA cap. On this basis affordable rented property has the following worth.

Table 4.10 Capitalisation of Affordable Rents

	1 Bedroom	2 Bedrooms	3 Bedrooms	4 Bedrooms
Gross Rent (£/month)	£340	£400	£474	£673
Gross Rent (£/annum)	£4,080	£4,800	£5,685	£8,078
Net Rent	£3,264	£3,840	£4,548	£6,462
Value	£90,667	£106,667	£126,325	£179,504
m^2	50	70	84	97
£/m^2	£1,813	£1,524	£1,504	£1,851

Source: HDH (June 2020)

4.45 Using this method to assess the value of Affordable Housing, under the Affordable Rent tenure, a value of £1,673/m^2 across all areas is derived.

Intermediate Products for Sale

4.46 In this study the Low Cost Home Ownership homes are taken to be Starter Homes (in line with the Council's normal practice) and to have a value of 80%.

Grant Funding

4.47 It is assumed that grant is not available.

5. Land Values

5.1 Chapters 2 and 3 set out the methodology used in this study to assess viability. An important element of the assessment is the value of the land. Under the method set out in the updated PPG and recommended in the Harman Guidance, the worth of the land before consideration of any increase in value, from a use that may be permitted through a planning consent, is the Existing Use Value (EUV). This is used as the starting point for the assessment.

5.2 In this chapter, the values of different types of land are considered. The value of land relates closely to the use to which it can be put and will range considerably from site to site. As this is a high-level study, the three main uses, being agricultural, residential and industrial, have been researched. The amount of uplift that may be required to ensure that land will come forward and be released for development has then been considered.

Existing Use Values

5.3 To assess development viability, it is necessary to analyse Existing and Alternative Use Values. EUV refers to the value of the land in its current use before planning consent is granted, for example, as agricultural land. AUV refers to any other potential use for the site. For example, a brownfield site may have an alternative use as industrial land.

5.4 The updated PPG includes a definition of land value as follows:

> *How should land value be defined for the purpose of viability assessment?*
>
> *To define land value for any viability assessment, 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 comply with policy requirements. This approach is often called 'existing use value plus' (EUV+).*
>
> *In order to establish benchmark land value, plan makers, landowners, developers, infrastructure and affordable housing providers should engage and provide evidence to inform this iterative and collaborative process.*
>
> *PPG: 10-013-20190509*
>
> *What is meant by existing use value in viability assessment?*
>
> *Existing use value (EUV) is the first component of calculating benchmark land value. EUV is the value of the land in its existing use. Existing use value is not the price paid and should disregard hope value. Existing use values will vary depending on the type of site and development types. EUV can be established in collaboration between plan makers, developers and landowners by assessing the value of the specific site or type of site using published sources of information such as agricultural or industrial land values, or if appropriate capitalised rental levels at an appropriate yield (excluding any hope value for development).*
>
> *Sources of data can include (but are not limited to): land registry records of transactions; real estate licensed software packages; real estate market reports; real estate research; estate agent websites; property auction results; valuation office agency data; public sector estate/property teams' locally held evidence.*
>
> *PPG: 10-015-20190509*

5.5 It is important to fully appreciate that land value should reflect emerging policy requirements and planning obligations. When considering comparable sites, the value will need to be adjusted to reflect this requirement.

5.6 The value of the land for a particular typology (or in due course a particular scheme) needs to be compared with the EUV, to determine if there is another use which would derive more revenue for the landowner. If the Residual Value does not exceed the EUV, then the development is not viable; if there is a surplus (i.e. profit) over and above the 'normal' developer's profit having paid for the land, then there is scope to make developer contributions.

5.7 For the purpose of the present study, it is necessary to take a high level approach to determining the EUV. All of the areas that will comprise the potential new settlements is in agricultural uses.

5.8 *Land value estimates for policy appraisal* provides a value figure for agricultural land in the area of £21,750/ha. For agricultural land, a value of £25,000/ha is assumed to apply here.

Benchmark Land Values

5.9 The setting of the Benchmark Land Values (BLV) is one of the more challenging parts of a plan-wide viability assessment. The updated PPG makes specific reference to BLV, so it is necessary to address this. As set out in Chapter 2 above, the updated PPG says:

> *Benchmark land value should:*
>
> - *be based upon existing use value*
> - *allow for a premium to landowners (including equity resulting from those building their own homes)*
> - *reflect the implications of abnormal costs; site-specific infrastructure costs; and professional site fees and*
>
> *Viability assessments should be undertaken using benchmark land values derived in accordance with this guidance. 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. There may be a divergence between benchmark land values and market evidence; and plan makers should be aware that this could be due to different assumptions and methodologies used by individual developers, site promoters and landowners.*
>
> *This evidence should be based on developments which are fully compliant with emerging or up to date plan policies, including affordable housing requirements at the relevant levels set out in the plan. Where this evidence is not available plan makers and applicants should identify and evidence any adjustments to reflect the cost of policy compliance. This is so that historic benchmark land values of non-policy compliant developments are not used to inflate values over time.*
>
> *In plan making, the landowner premium should be tested and balanced against emerging policies. In decision making, the cost implications of all relevant policy requirements, including planning obligations and, where relevant, any Community Infrastructure Levy (CIL) charge should be taken into account.*
>
> *Where viability assessment is used to inform decision making under no circumstances will the price paid for land be a relevant justification for failing to accord with relevant policies in the*

plan. Local authorities can request data on the price paid for land (or the price expected to be paid through an option agreement).

PPG 10-014-20190509

5.10 With regard to the landowner's premium, the PPG says:

How should the premium to the landowner be defined for viability assessment?

The premium (or the 'plus' in EUV+) is the second component of benchmark land value. It is the amount above existing use value (EUV) that goes to the landowner. The premium should provide a reasonable incentive for a land owner to bring forward land for development while allowing a sufficient contribution to comply with policy requirements.

Plan makers should establish a reasonable premium to the landowner for the purpose of assessing the viability of their plan. This will be an iterative process informed by professional judgement and must be based upon the best available evidence informed by cross sector collaboration. Market evidence can include benchmark land values from other viability assessments. Land transactions can be used but only as a cross check to the other evidence. Any data used should reasonably identify any adjustments necessary to reflect the cost of policy compliance (including for affordable housing), or differences in the quality of land, site scale, market performance of different building use types and reasonable expectations of local landowners. Policy compliance means that the development complies fully with up to date plan policies including any policy requirements for contributions towards affordable housing requirements at the relevant levels set out in the plan. A decision maker can give appropriate weight to emerging policies. Local authorities can request data on the price paid for land (or the price expected to be paid through an option or promotion agreement).

PPG 10-016-20190509

5.11 It is useful to consider the assumptions used in other studies in other parts of England. We have reviewed Benchmark Land Values used by other councils in England in development plans (albeit from before the PPG was updated in July 2018). These are set out in the table below.

Table 6.8 Benchmark Land Values Used Elsewhere

Local Authority	Threshold Land Value
Babergh	£370,000/ha
Cannock Chase	£100,000-£400,000/ha
Christchurch & East Dorset	£308,000/ha (un-serviced) £1,235,000/ha (serviced)
East Hampshire	£450,000/ha
Erewash	£300,000/ha
Fenland	£1-2m/ha (serviced)
Greater Norwich DP	£370,000-£430,000/ha
Reigate & Banstead	£500,000/ha
Stafford	£250,000/ha
Staffordshire Moorlands	£1.26-£1.41m/ha (serviced)
Warrington	£100,000-£300,000/ha

Source: Planning Advisory Service (collated by URS)

5.12 Care has to be taken drawing on such general figures without understanding the wider context and other assumptions in the studies.

5.13 In this study we are not recommending a benchmark land value. This is a relatively controversial process that does require engagement with the development industry. In the appraisals we have assumed an uplift of £250,000/ha over and above the EUV, but this should only be taken as to be illustrative.

6. Development Costs

6.1 This chapter considers the costs and other assumptions required to produce financial appraisals for the development typologies.

Development Costs

Construction costs: baseline costs

6.2 The cost assumptions are derived from the Building Cost Information Service (BCIS) data – using the figures re-based for Ashfield District. The use of the BCIS data is suggested in the PPG (paragraph 10-012-20180724), however, it is necessary to appreciate that the volume housebuilders are likely to be able to achieve significant saving due to their economies of scale. Appraisals are run using both the Lower Quartile and the Median BCIS cost.

6.3 The base assumption in this report is that homes are built to the basic Building Regulation Part L 2013 Standards (as amended in 2016) but not to higher environmental standards. As set out in Chapter 2 above, the Government is undertaking a consultation on 'The Future Homes Standard'[19]. This is linked to achieving the 'net zero' greenhouse gas emissions by 2050. The Council is exploring the policy options in this regard. At this stage a policy has not been drafted but is likely to include provisions to encourage reduced energy usage. This is considered in Chapter 8 below.

Other normal development costs

6.4 In addition to the BCIS £/m^2 build cost figures described above, allowance needs to be made for a range of site costs (roads, drainage and services within the site, parking, footpaths, landscaping and other external costs). Many of these items will depend on individual site circumstances and can only properly be estimated following a detailed assessment of each site. This is not practical within this broad-brush study and the approach taken is in line with the PPG and the Harman Guidance.

6.5 Nevertheless, it is possible to generalise. Drawing on experience and the comments of stakeholders, it is possible to determine an allowance related to total build costs. This is normally lower for higher density than for lower density schemes since there is a smaller area of external works, and services can be used more efficiently. Large greenfield sites would also be more likely to require substantial expenditure on bringing mains services to the site.

6.6 An assumption of 15% is used for these large greenfield schemes.

[19] https://www.gov.uk/government/consultations/the-future-homes-standard-changes-to-part-l-and-part-f-of-the-building-regulations-for-new-dwellings?utm_source=7711646e-e9bf-4b38-ab4f-9ef9a8133f14&utm_medium=email&utm_campaign=govuk-notifications&utm_content=immediate

Abnormal development costs and brownfield sites

6.7 With regard to abnormals, paragraph 10-012-20180724 of the PPG says:

> *abnormal costs, including those associated with treatment for contaminated sites or listed buildings, or costs associated with brownfield, phased or complex sites. These costs should be taken into account when defining benchmark land value*

6.8 This needs to be read with paragraph 10-014-20180724 of the PPG that says that:

> *Benchmark land value should: ... reflect the implications of abnormal costs; site-specific infrastructure costs; and professional site fees and ...*

6.9 The consequence of this, when considering viability in the planning system, is that abnormal costs should be added to the cost side of the viability assessment, but also reflected in (i.e. deducted from) the BLV. This has the result of balancing the abnormal costs on both elements of the appraisal.

6.10 This approach is consistent with the treatment of abnormals that was considered at Gedling Council's Examination in Public. There is an argument, as set out in Gedling, that it may not be appropriate for abnormals to be built into appraisals in a high-level assessment of this type. Councils should not plan for the worst-case option – rather for the norm. For example, if two similar sites were offered to the market and one was previously in industrial use with significant contamination, and one was 'clean' then the landowner of the contaminated site would have to take a lower land receipt for the same form of development due to the condition of the land. The Inspector said:

> *… demolition, abnormal costs and off site works are excluded from the VA, as the threshold land values assume sites are ready to develop, with no significant off site secondary infrastructure required. While there may be some sites where there are significant abnormal construction costs, these are unlikely to be typical and this would, in any case, be reflected in a lower threshold land value for a specific site. In addition such costs could, at least to some degree, be covered by the sum allowed for contingencies.*

6.11 In some cases, where the site involves redevelopment of land which was previously developed, there is the potential for abnormal costs to be incurred. Abnormal development costs might include demolition of substantial existing structures; flood prevention measures at waterside locations; remediation of any land contamination; remodelling of land levels; and so on. In this case we have been provided with the following likely abnormal costs by AECOM:

Table 6.1 Abnormal Costs Assumptions

Site 1. Kirkby Lane/Pinxton Lane			
	Remediation	£3,231,730	
	Off site services	£8,579,000	£11,810,730
Site 2. Cauldwell Road/Derby Road			
	Remediation	£2,613,490	
	Off site services	£4,946,150	£7,559,640

Source: AECOM (June 2020)

6.12 These are tested, however, in summary, abnormal costs will be reflected in land value. Those sites that are less expensive to develop will command a premium price over and above those that have exceptional or abnormal costs. It is not the purpose of an assessment of this type to standardise land prices across an area.

Fees

6.13 For residential and non-residential development, we have assumed professional fees amount to 8% of build costs. Separate allowances are made for planning fees, acquisition, sales and finance costs.

Contingencies

6.14 For previously undeveloped and otherwise straightforward sites, a contingency of 2.5% has been allowed for.

S106 Contributions and the costs of infrastructure

6.15 For many years, ADC Council has sought payments from developers to mitigate the impact of the development through improvements to the local infrastructure. In this study it is important that the costs of mitigation are reflected in the analysis.

Table 6.2 Strategic Infrastructure and Mitigation Cost Assumptions

Site 1. Kirkby Lane / Pinxton Lane			
	Transport	£11,212,500	
	Social Infrastructure	£25,685,781	£36,898,281
Site 2. Cauldwell Road/Derby Road			
	Transport	£9,005,700	
	Social Infrastructure	£16,738,511	£25,744,211

Source: AECOM (June 2020)

6.16 These costs are tested

Financial and Other Appraisal Assumptions

VAT

6.17 It has been assumed throughout, that either VAT does not arise, or that it can be recovered in full[20].

[20] VAT is a complex area. Sales of new residential buildings are usually zero-rated supplies for VAT purposes (subject to various conditions). VAT incurred as part of the development can normally be recovered. Where an appropriate 'election' is made, VAT can also be recovered in relation to commercial development – although VAT must then be charged on the income from the development.

Interest rates

6.18 Our appraisals assume 6.5% p.a. for total debit balances, we have made no allowance for any equity provided by the developer. This does not reflect the current working of the market nor the actual business models used by developers. In most cases the smaller (non-plc) developers are required to provide between 30% and 40% of the funds themselves, from their own resources, so as to reduce the risk to which the lender is exposed. The larger plc developers tend to be funded through longer term rolling arrangements across multiple sites.

6.19 The 6.5% assumption may seem high given the very low base rate figure (0.01% June 2020). Developers that have a strong balance sheet, and good track record, can undoubtedly borrow less expensively than this, but this reflects banks' view of risk for housing developers in the present situation. A cashflow is used to calculate interest.

Developers' return

6.20 An allowance needs to be made for developers' return and to reflect the risk of development. Paragraph 10-018-20190509 of the updated PPG says:

> *How should a return to developers be defined for the purpose of viability assessment?*
>
> *Potential risk is accounted for in the assumed return for developers at the plan making stage. It is the role of developers, not plan makers or decision makers, to mitigate these risks. The cost of fully complying with policy requirements should be accounted for in benchmark land value. Under no circumstances will the price paid for land be relevant justification for failing to accord with relevant policies in the plan.*
>
> *For the purpose of plan making an assumption of 15-20% of gross development value (GDV) may be considered a suitable return to developers in order to establish the viability of plan policies. Plan makers may choose to apply alternative figures where there is evidence to support this according to the type, scale and risk profile of planned development. A lower figure may be more appropriate in consideration of delivery of affordable housing in circumstances where this guarantees an end sale at a known value and reduces risk. Alternative figures may also be appropriate for different development types.*

6.21 The purpose of including a developers' return figure is not to mirror a particular business model, but to reflect the risk a developer is taking in buying a piece of land, and then expending the costs of construction before selling the property. The use of developers' return in the context of area wide viability testing of the type required by the NPPF and CIL Regulation 14, is to reflect that level of risk.

6.22 Broadly there are four different approaches that could be taken:

a. To set a different rate of return on each site to reflect the risk associated with the development of that site. This would result in a lower rate on the smaller and simpler sites – such as the greenfield sites, and a higher rate on the brownfield sites.

b. To set a rate for the different types of unit produced – say 20% for market housing and 6% for Affordable Housing, as suggested by the HCA.

c. To set the rate relative to costs – and thus reflect the risks of development.

d. To set the rate relative to the gross development value.

6.23 In deciding which option to adopt, it is important to note that the intention is not to recreate any particular developer's business model. Different developers will always adopt different models and have different approaches to risk.

6.24 The argument is sometimes made that financial institutions require a 20% return on development value and if that is not shown they will not provide development funding. In the pre-Credit Crunch era there were some lenders who did take a relatively simplistic view to risk analysis but that is no longer the case. Most financial institutions now base their decisions behind providing development finance on sophisticated financial modelling that it is not possible to replicate in a study of this type. They require a developer to demonstrate a sufficient margin, to protect the lender in the case of changes in prices or development costs. They will also consider a wide range of other factors, including the amount of equity the developer is contributing (both on a loan-to-value and loan-to-cost basis), the nature of development and the development risks that may arise due to demolition works or similar, the warranties offered by the professional team, whether or not the directors will provide personal guarantees, and the number of pre-sold units.

6.25 This is a high-level study where it is necessary and proportionate to take a relatively simplistic approach, so, rather than apply a differential return (i.e. site-by-site or split), it is appropriate to make some broad assumptions and, as set out above, the updated PPG says '*For the purpose of plan making an assumption of 15-20% of gross development value (GDV) may be considered a suitable return to developers in order to establish the viability of plan policies ... A lower figure may be more appropriate in consideration of delivery of affordable housing'*.

6.26 The developers' return is assessed as 17.5% of the value of market housing and affordable housing. 17.5% being the middle of the range suggested in the PPG.

Voids

6.27 On a scheme comprising mainly individual houses, one would normally assume only a nominal void period as the housing would not be progressed if there was no demand. In the case of apartments in blocks this flexibility is reduced. Whilst these may provide scope for early marketing, the ability to tailor construction pace to market demand is more limited.

6.28 For the purpose of the present study, a three-month void period is assumed for residential developments.

Phasing and timetable

6.29 A pre-construction period of six months (from site acquisition, following the grant of planning consent) is assumed for all of the sites. Each dwelling is assumed to be built over a nine-month period. The phasing programme for an individual site will reflect market take-up and would, in practice, be carefully estimated taking into account the site characteristics and, in particular, the size and the expected level of market demand. The rate of delivery will be an important factor when considering the allocation of sites so as to manage the delivery of housing and infrastructure. Two aspects are relevant, firstly the number of outlets that a development site may have, and secondly the number of units that an outlet may deliver.

6.30 It is assumed a maximum, per outlet, delivery rate of 40 units per year. On a site with 30% Affordable Housing this equates to around 28 market units per year. This is the appropriate assumption to make to be in line with the PPG and the Harman Guidance.

Site Acquisition and Disposal Costs

Site holding costs and receipts

6.31 Each site is assumed to proceed immediately (following a 6 month mobilisation period) and so, other than interest on the site cost during construction, there is no allowance for holding costs, or indeed income, arising from ownership of the site.

Acquisition costs

6.32 It is assumed an allowance 1% for acquisition agents' and 0.5% legal fees.

6.33 Stamp duty is calculated at the prevailing rates.

Disposal costs

6.34 For market and for Affordable Housing, sales and promotion and legal fees are assumed to amount to 3.5% of receipts. For disposals of Affordable Housing, these figures can be reduced significantly depending on the category, so in fact the marketing and disposal of the affordable element is probably less expensive than this.

7. Local Plan Policy Requirements

7.1 The specific purpose of this study is to consider the deliverability of the two potential new settlements. This needs to be done in the context of the emerging Local Plan. The policy Requirements are summarised as follows:

Table 7.1 Policy Requirements from the Publication Draft 2016	
S1 Sustainable Development Principles	
	No requirements over Building Regulations
SKA5 Green Infrastructure in and around Sutton and Kirkby	
	General requirements
	Biodiversity net gain included
CC1 Zero and Low Carbon Developments and Decentralised, Renewable and Low Carbon Energy Generation	
	Seeks to encourage rather than require higher standards.
CC2: Water Resource Management	
	SUDS included in soft landscaping.
	Water efficiency assumed. Plus £9/dwelling.
EV4: Green Infrastructure, Biodiversity and Geodiversity	
	No specific requirements.
HG2: Affordable Housing (including Starter Homes)	
	20% Starter Homes and 10% Affordable Rent.
HG3: Public Open Space in New Residential Developments	
	Included in 60% / 40%
HG4: Housing Mix	
	Mix as Advised by AECOM.
	NDSS Assumed to apply to affordable. Market houses exceeds.
SD1: Good Design Considerations for Development	
	Costs within BCIS allowances
SD3: Recycling and Refuse Provision in New Development	
	Normal site costs.
SD4: Infrastructure Provision and Developer Contributions	
SD12: Provision and Protection of Health and Community Facilities	
	As per AECOM advice.
SD13: Designing Out Crime and the Fear of Crime	
	Within BCIS costs

Source: Ashfield Publication Local Plan (September 2016)

Table 7.2 Emerging Policy Requirements in addition to the Publication Draft 2016	
Additional Standards	
	No policy- assume modest requirement to meet needs of older people.
	30% Part M4 Category 2, 5% Part M4 Category 3. Plus £8/m2
Climate Change	
	No Policy Requirements
	Assume Option 1 of Future Homes Standard.
	Car Charging - not required - assume fused spur.
Biodiversity Net Gain	
	Not required. Assume 10%. Plus 0.66%
Water Efficiency	
	Assumed. Plus £9/dwelling.

Source: June 2020

8. Modelling

8.1 In the previous chapters, the general assumptions to be inputted into the development appraisals are set out. In this chapter, the modelling is set out. It is stressed that this is a high-level study that is seeking to capture the generality. At this stage no master planning or survey work has been undertaken to establish what these schemes may actually 'look like.

8.2 The approach is to model the potential new settlements in a way that is broadly representative of the type of development that is likely to come forward under the new Local Plan.

8.3 The areas of the two sites under consideration are as follows:

Table 8.1 Site Areas

Site 1. Kirkby Lane/Pinxton Lane			
Site / parcel	**Site Size (ha)**	**Net ha, 60%**	**Dwellings (35dph)**
1a	36.33	21.798	763
1b	8.62	5.172	181
1c	13.59	8.154	285
1d	2.95	1.77	62
1e	5.33	3.198	112
1f	1.77	1.062	37
1g	8.13	4.878	171
Site 1 total	**76.72**	**46.032**	**1611**
Site 2. Cauldwell Road/Derby Road			
Site 2 total	**47.32**	**28.392**	**994**

Source: AECOM (June 2020)

8.4 The modelling is based on 35 dwellings per hectare and the following housing mix.

Table 8.2 Housing Mix			
	Bedrooms	Market Housing	Affordable Housing
Flat	1	5%	30%
	2		
Terrace	2	15%	20%
	3	20%	15%
Semi	2	15%	20%
	3	30%	10%
Det	3		
	4	10%	5%
	5	5%	

Source: Nottingham Outer 2015 Strategic Housing Market Assessment

9. Residential Appraisals

9.1 At the start of this chapter it is important to stress that the results of the appraisals do not, in themselves, determine policy. The results of this study are one of a number of factors that will feed into the wider Potential New Settlements Study and that ADC will consider, including the need for infrastructure.

9.2 The appraisals use the residual valuation approach – they assess the value of a site after taking into account the costs of development, the likely income from sales and/or rents and a developers' return. The Residual Value represents the maximum bid for the site where the payment is made in a single tranche on the acquisition of a site. In order for the proposed development to be viable, it is necessary for this Residual Value to exceed the EUV by a satisfactory margin, being the Benchmark Land Value (BLV).

9.3 Several sets of appraisals have been run based on the assumptions provided in the previous chapters of this report, including the affordable housing requirement and developer contributions. Development appraisals are sensitive to changes in price, so appraisals have been run with various changes in the cost of construction and an increase and decrease in prices.

9.4 As set out above, for each development type the Residual Value is calculated. The results are set out and presented for each site and per gross hectare to allow comparison between sites. In the tables in this chapter, the results are colour coded using a traffic light system:

a. **Green** **Viable** – where the Residual Value per hectare exceeds the BLV per hectare (being the EUV plus the appropriate uplift to provide a landowners' premium).

b. **Amber** **Marginal** – where the Residual Value per hectare exceeds the EUV but not the BLV per hectare. These sites should not be considered as viable when measured against the test set out – however, depending on the nature of the site and the owner, they may come forward.

c. **Red** **Non-viable** – where the Residual Value does not exceed the EUV.

9.5 It is important to note that a report of this type applies relatively simple assumptions that are broadly reflective of an area to make an assessment of viability. The fact that a site is shown as viable does not necessarily mean that it will come forward and vice versa. An important part of any final consideration of viability will be relating the results of this study to what is actually happening on the ground in terms of development.

Base Appraisals – full policy requirements

9.6 These appraisals are based on the following assumptions. These base appraisals have been based on 30% affordable housing (sites of 10 units+ and Built to Rent) where the affordable housing requirement is as a proportion of units. In the subsequent analysis the affordable

housing requirement is assessed as a proportion of the Gross Internal Area (GIA) (excluding common areas), in line with the current policy wording.

a.	Affordable Housing	As shown (Starter Homes 2/3, Affordable Rent 1/3).
b.	Design	30% Accessible and Adaptable – Category 2
		5% Wheelchair Accessible
		NDSS
		Water efficiency Standards
		10% Biodiversity Net Gain
		Future Homes Standard – Option 1.

c. Developer Contributions and Abnormal Costs

Site 1. Kirkby Lane/Pinxton Lane			
Abnormal Costs			
	Remediation	£3,231,730	
	Off site services	£8,579,000	£11,810,730
S106			
	Transport	£11,212,500	
	Social Infrastructure	£25,685,781	£36,898,281
		Total	**£48,709,011**
		£/unit	£30,235
Site 2. Cauldwell Road/Derby Road			
Abnormal Costs			
	Remediation	£2,613,490	
	Off site services	£4,946,150	£7,559,640
S106			
	Transport	£9,005,700	
	Social Infrastructure	£16,738,511	£25,744,211
		Total	**£33,303,851**
		£/unit	£33,505

9.7 The base appraisals are included in **Appendix 1**.

Table 9.1 Residual Values – Base Appraisals - BCIS Median Cost

			Affordable	Area (ha)		Units	Residual Value (£)		
				Gross	Net		Gross ha	Net ha	Site
Site 1	Site 1	Kirkby/ Pinxton Ln	Agricultural	0%	76.72	46.03	1,611	-367,366	-612,322	-28,184,302
Site 2	Site 1	Kirkby/ Pinxton Ln	Agricultural	5%	76.72	46.03	1,611	-402,060	-670,150	-30,846,050
Site 3	Site 1	Kirkby/ Pinxton Ln	Agricultural	10%	76.72	46.03	1,611	-437,002	-728,392	-33,526,828
Site 4	Site 1	Kirkby/ Pinxton Ln	Agricultural	15%	76.72	46.03	1,611	-472,043	-786,796	-36,215,111
Site 5	Site 1	Kirkby/ Pinxton Ln	Agricultural	20%	76.72	46.03	1,611	-507,140	-845,297	-38,907,819
Site 6	Site 1	Kirkby/ Pinxton Ln	Agricultural	25%	76.72	46.03	1,611	-542,213	-903,756	-41,598,592
Site 7	Site 1	Kirkby/ Pinxton Ln	Agricultural	30%	76.72	46.03	1,611	-577,217	-962,099	-44,284,054
Site 8	Site 2	Cauldwell/ Derby Rd	Agricultural	0%	47.32	28.40	994	-440,963	-734,731	-20,866,353
Site 9	Site 2	Cauldwell/ Derby Rd	Agricultural	5%	47.32	28.40	994	-475,289	-791,926	-22,490,689
Site 10	Site 2	Cauldwell/ Derby Rd	Agricultural	10%	47.32	28.40	994	-511,033	-851,482	-24,182,082
Site 11	Site 2	Cauldwell/ Derby Rd	Agricultural	15%	47.32	28.40	994	-545,300	-908,578	-25,803,612
Site 12	Site 2	Cauldwell/ Derby Rd	Agricultural	20%	47.32	28.40	994	-580,781	-967,696	-27,482,563
Site 13	Site 2	Cauldwell/ Derby Rd	Agricultural	25%	47.32	28.40	994	-615,608	-1,025,725	-29,130,592
Site 14	Site 2	Cauldwell/ Derby Rd	Agricultural	30%	47.32	28.40	994	-651,201	-1,085,029	-30,814,814

Source: HDH (June 2020)

Table 9.2 Residual Values – Base Appraisals - BCIS Lower Quartile Cost

			Affordable	Area (ha)		Units	Residual Value (£)		
			0%	Gross	Net		Gross ha	Net ha	Site
Site 1	Site 1	Kirkby/ Pinxton Ln	Agricultural	0%	76.72	46.03	1,611	-51,456	-85,766	-3,947,691
Site 2	Site 1	Kirkby/ Pinxton Ln	Agricultural	5%	76.72	46.03	1,611	-77,630	-129,393	-5,955,785
Site 3	Site 1	Kirkby/ Pinxton Ln	Agricultural	10%	76.72	46.03	1,611	-104,073	-173,467	-7,984,456
Site 4	Site 1	Kirkby/ Pinxton Ln	Agricultural	15%	76.72	46.03	1,611	-131,703	-219,521	-10,104,261
Site 5	Site 1	Kirkby/ Pinxton Ln	Agricultural	20%	76.72	46.03	1,611	-160,210	-267,036	-12,291,295
Site 6	Site 1	Kirkby/ Pinxton Ln	Agricultural	25%	76.72	46.03	1,611	-189,876	-316,483	-14,567,277
Site 7	Site 1	Kirkby/ Pinxton Ln	Agricultural	30%	76.72	46.03	1,611	-221,237	-368,755	-16,973,287
Site 8	Site 2	Cauldwell/ Derby Rd	Agricultural	0%	47.32	28.40	994	-92,144	-153,531	-4,360,275
Site 9	Site 2	Cauldwell/ Derby Rd	Agricultural	5%	47.32	28.40	994	-121,302	-202,113	-5,739,997
Site 10	Site 2	Cauldwell/ Derby Rd	Agricultural	10%	47.32	28.40	994	-152,600	-254,262	-7,221,051
Site 11	Site 2	Cauldwell/ Derby Rd	Agricultural	15%	47.32	28.40	994	-183,217	-305,276	-8,669,825
Site 12	Site 2	Cauldwell/ Derby Rd	Agricultural	20%	47.32	28.40	994	-215,652	-359,318	-10,204,631
Site 13	Site 2	Cauldwell/ Derby Rd	Agricultural	25%	47.32	28.40	994	-250,417	-417,244	-11,849,722
Site 14	Site 2	Cauldwell/ Derby Rd	Agricultural	30%	47.32	28.40	994	-290,242	-483,600	-13,734,229

Source: HDH (June 2020)

9.8 The results vary considerably depending on the level of affordable housing, but are all negative

9.9 The Residual Value is not an indication of viability by itself, simply being the maximum price a developer may bid for a parcel of land, and still make an adequate return.

9.10 In the following tables the Residual Value is compared with the BLV. The Benchmark Land Value being an amount over and above the Existing Use Value that is sufficient to provide the willing landowner with a premium, and induce them to sell the land for development as set out in Chapter 6 above.

Table 9.3 Residual Values v Benchmark Land Value – Base Appraisals

BCIS Median Cost

	Affordable		Existing Use Value	Benchmark Land Value	Residual Value
Site 1	0%	Kirkby/ Pinxton Ln	25,000	275,000	-367,366
Site 1	5%	Kirkby/ Pinxton Ln	25,000	275,000	-402,060
Site 1	10%	Kirkby/ Pinxton Ln	25,000	275,000	-437,002
Site 1	15%	Kirkby/ Pinxton Ln	25,000	275,000	-472,043
Site 1	20%	Kirkby/ Pinxton Ln	25,000	275,000	-507,140
Site 1	25%	Kirkby/ Pinxton Ln	25,000	275,000	-542,213
Site 1	30%	Kirkby/ Pinxton Ln	25,000	275,000	-577,217
Site 2	0%	Cauldwell/ Derby Rd	25,000	275,000	-440,963
Site 2	5%	Cauldwell/ Derby Rd	25,000	275,000	-475,289
Site 2	10%	Cauldwell/ Derby Rd	25,000	275,000	-511,033
Site 2	15%	Cauldwell/ Derby Rd	25,000	275,000	-545,300
Site 2	20%	Cauldwell/ Derby Rd	25,000	275,000	-580,781
Site 2	25%	Cauldwell/ Derby Rd	25,000	275,000	-615,608
Site 2	30%	Cauldwell/ Derby Rd	25,000	275,000	-651,201

Source: HDH (June 2020)

Table 9.4 Residual Values v Benchmark Land Value – Base Appraisals
BCIS Lower Quartile Cost

	Affordable		Existing Use Value	Benchmark Land Value	Residual Value
Site 1	0%	Kirkby/ Pinxton Ln	25,000	275,000	-51,456
Site 1	5%	Kirkby/ Pinxton Ln	25,000	275,000	-77,630
Site 1	10%	Kirkby/ Pinxton Ln	25,000	275,000	-104,073
Site 1	15%	Kirkby/ Pinxton Ln	25,000	275,000	-131,703
Site 1	20%	Kirkby/ Pinxton Ln	25,000	275,000	-160,210
Site 1	25%	Kirkby/ Pinxton Ln	25,000	275,000	-189,876
Site 1	30%	Kirkby/ Pinxton Ln	25,000	275,000	-221,237
Site 2	0%	Cauldwell/ Derby Rd	25,000	275,000	-92,144
Site 2	5%	Cauldwell/ Derby Rd	25,000	275,000	-121,302
Site 2	10%	Cauldwell/ Derby Rd	25,000	275,000	-152,600
Site 2	15%	Cauldwell/ Derby Rd	25,000	275,000	-183,217
Site 2	20%	Cauldwell/ Derby Rd	25,000	275,000	-215,652
Site 2	25%	Cauldwell/ Derby Rd	25,000	275,000	-250,417
Site 2	30%	Cauldwell/ Derby Rd	25,000	275,000	-290,242

Source: HDH (June 2020)

9.11 On both sites, even without affordable housing, the Residual Value is somewhat less than the EUV so these sites are unlikely to be deliverable. In order to assist the further consideration of these sites, several further scenarios have been modelled.

9.12 Firstly, a set of appraisals have been run with varied levels of affordable housing and varied levels of developer contributions and abnormal costs. The abnormal costs and the levels of developer contributions have been modelled by AECOM, and some of the items could appear under either heading.

Table 9.5 Residual Values v Benchmark Land Value

Full Policy Requirements, No Abnormal Costs, Varied Developer Contributions

Policy Requirements, no abnormals, varied developer contributions. BCIS median

	Aff %	Developer Contribution	EUV	BLV	Residual Value £0	£5,000	£10,000	£15,000	£20,000	£25,000	£30,000	£35,000	£40,000
Site 1	0%	Kirkby/ Pinxton Ln	25,000	275,000	130,022	61,060	-10,815	-87,686	-168,025	-255,852	-362,198	-473,914	-585,629
Site 1	5%	Kirkby/ Pinxton Ln	25,000	275,000	109,954	40,364	-32,618	-110,294	-193,007	-285,574	-396,892	-508,608	-620,324
Site 1	10%	Kirkby/ Pinxton Ln	25,000	275,000	89,772	19,552	-55,328	-134,114	-219,277	-320,119	-431,834	-543,550	-655,266
Site 1	15%	Kirkby/ Pinxton Ln	25,000	275,000	69,514	-1,540	-78,125	-158,428	-246,881	-355,159	-466,875	-578,590	-690,306
Site 1	20%	Kirkby/ Pinxton Ln	25,000	275,000	48,977	-23,493	-100,955	-183,687	-278,541	-390,257	-501,972	-613,688	-725,404
Site 1	25%	Kirkby/ Pinxton Ln	25,000	275,000	28,062	-46,127	-124,839	-210,318	-313,613	-425,329	-537,045	-648,761	-760,477
Site 1	30%	Kirkby/ Pinxton Ln	25,000	275,000	7,191	-68,901	-149,202	-238,719	-348,617	-460,333	-572,049	-683,764	-795,480
Site 2	0%	Cauldwell/ Derby Rd	25,000	275,000	160,696	85,002	7,450	-75,943	-162,903	-255,141	-362,616	-474,372	-586,127
Site 2	5%	Cauldwell/ Derby Rd	25,000	275,000	138,543	62,849	-16,424	-100,998	-189,276	-285,580	-396,943	-508,698	-620,454
Site 2	10%	Cauldwell/ Derby Rd	25,000	275,000	115,397	39,040	-41,526	-127,177	-217,585	-320,931	-432,686	-544,442	-656,197
Site 2	15%	Cauldwell/ Derby Rd	25,000	275,000	93,281	16,184	-66,516	-153,457	-246,379	-355,198	-466,954	-578,709	-690,465
Site 2	20%	Cauldwell/ Derby Rd	25,000	275,000	70,258	-8,209	-92,556	-180,851	-278,923	-390,679	-502,434	-614,190	-725,946
Site 2	25%	Cauldwell/ Derby Rd	25,000	275,000	47,577	-32,569	-117,965	-208,625	-313,750	-425,506	-537,262	-649,017	-760,773
Site 2	30%	Cauldwell/ Derby Rd	25,000	275,000	23,746	-58,366	-145,340	-239,056	-349,343	-461,098	-572,854	-684,609	-796,365

Policy Requirements, no abnormals, varied developer contributions. BCIS lower quartile

	Aff %	Developer Contribution	EUV	BLV	Residual Value £0	£5,000	£10,000	£15,000	£20,000	£25,000	£30,000	£35,000	£40,000
Site 1	0%	Kirkby/ Pinxton Ln	25,000	275,000	365,415	299,593	232,612	165,363	96,451	26,355	-47,864	-126,102	-209,617
Site 1	5%	Kirkby/ Pinxton Ln	25,000	275,000	343,063	276,877	209,896	142,107	73,196	2,339	-74,038	-153,535	-240,244
Site 1	10%	Kirkby/ Pinxton Ln	25,000	275,000	320,476	253,925	186,944	118,613	49,367	-23,084	-100,481	-182,592	-274,113
Site 1	15%	Kirkby/ Pinxton Ln	25,000	275,000	297,852	230,934	163,952	95,076	25,086	-49,321	-127,953	-212,910	-313,719
Site 1	20%	Kirkby/ Pinxton Ln	25,000	275,000	274,849	207,868	140,375	71,464	628	-75,898	-156,281	-245,148	-354,207
Site 1	25%	Kirkby/ Pinxton Ln	25,000	275,000	251,841	184,860	116,822	47,667	-24,867	-102,529	-185,745	-282,869	-394,585
Site 1	30%	Kirkby/ Pinxton Ln	25,000	275,000	228,873	161,892	93,309	23,411	-51,222	-130,267	-216,880	-323,181	-434,897
Site 2	0%	Cauldwell/ Derby Rd	25,000	275,000	417,802	346,026	272,569	199,111	123,753	47,591	-32,554	-117,757	-206,678
Site 2	5%	Cauldwell/ Derby Rd	25,000	275,000	393,071	320,879	247,422	173,670	97,976	20,942	-61,239	-147,652	-238,939
Site 2	10%	Cauldwell/ Derby Rd	25,000	275,000	367,473	294,837	221,379	146,966	71,272	-7,215	-91,446	-179,414	-274,952
Site 2	15%	Cauldwell/ Derby Rd	25,000	275,000	342,785	269,733	196,275	121,232	45,137	-35,129	-120,554	-210,691	-313,931
Site 2	20%	Cauldwell/ Derby Rd	25,000	275,000	317,525	244,067	170,603	94,909	17,919	-64,655	-151,641	-244,898	-354,284
Site 2	25%	Cauldwell/ Derby Rd	25,000	275,000	291,920	218,462	144,357	68,663	-9,886	-94,343	-182,868	-282,938	-394,693
Site 2	30%	Cauldwell/ Derby Rd	25,000	275,000	266,055	192,597	117,834	41,772	-38,670	-124,720	-216,152	-323,650	-435,406

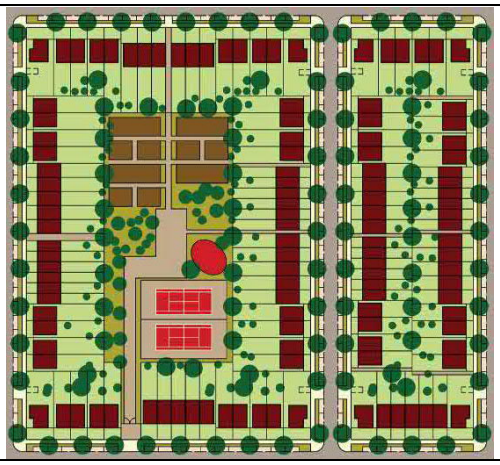
Source: HDH (June 2020)

9.13 These results show that even with very low levels of affordable housing, new settlements of the scale proposed are unlikely to be able to bear significant developer contributions and / or levels of abnormal costs. It is important to note that, in this context, new settlements are normally subject to significant levels of such costs, and the strategic infrastructure needs to be provided in its entirety, as there is no infrastructure to improve or expand.

9.14 We understand that it is necessary for the Council to consider all options to deliver housing to meet the District's needs. Based on experience elsewhere, we know that the adoption of Garden Town principles can improve viability. The difference between the Garden Town and the conventional approach is in two main parts. The first being the total land requirement and the second being the layout.

9.15 In this assessment the construction costs are based on the BCIS costs (median or lower quartile). The BCIS costs include the costs of the building but not the costs of services and external works. For this assessment we have had regard to the work carried out by URS (now AECOM) to support the TCPA's *Nothing gained by overcrowding!* paper[21]. In that paper, two 4ha schemes were modelled as per the layouts below (at 2012 prices) to ascertain the estimated site costs. It found that the site costs on the Garden Town scheme, on a per unit basis, are about 65% of the costs on the conventional scheme.

Figure 9.1 Scheme Layouts

Conventional Layout (A)	Garden City Layout (B)
	

Source: Nothing gained by overcrowding! TCPA 2012

9.16 The reason for this is set out in the report as follows (where Scheme A is the Conventional scheme and Scheme B adopts the Garden City principles):

> *... the real difference between the two approaches becomes apparent when we then take into account the substantially larger plot size of homes in Scheme B. It can be seen that the cost per square metre is more than 40% less for homes in Scheme B, and more than 50% less if one includes a share of the communal open space area. Aside from the adoption of the highway and footways, no additional cost has been included for the long-term management and maintenance of communal areas in either scheme. However, there are significant differences*

[21] See footnote 1.

between the two approaches. In Scheme A only 31% of the total area is looked after by the individual property owners or tenants, leaving almost 70% of the area to be maintained by the highway authority or management company. In contrast, in Scheme B the area to be maintained communally is just 39%, and would be reduced to just 24% if the communal gardens were managed directly by the residents.

9.17 Under a conventional scheme it is generally assumed that the site costs would be about of 15% of the construction (i.e. BCIS based) costs; under the Garden Town principles this can be reduced to 13% of the BCIS based construction cost.

9.18 As well as impacting on the costs of construction we know that Garden Town principles can improve values (for example when Stevenage is compared to nearby Letchworth or Welwyn in Hertfordshire). It is difficult to make direct comparisons and exactly quantify such differences. A further set of appraisals have been run, as above, but assuming Garden Town principles, using the lower quartile BCIS cost, 13% site costs and an increased value assumption of 5%.

Table 9.6 Residual Values v Benchmark Land Value – Garden Town Principles

Full Policy Requirements, No Abnormal Costs, Varied Developer Contributions

GARDEN TOWN PRINCIPLES. Policy Requirements, no abnormals, varied developer contributions. BCIS lower quartile

	Aff %	Developer Contribution	EUV	BLV	Residual Value £0	£5,000	£10,000	£15,000	£20,000	£25,000	£30,000	£35,000	£40,000
Site 1	0%	Kirkby/ Pinxton Ln	25,000	275,000	500,969	435,562	370,154	304,061	237,080	169,704	100,792	30,733	-43,038
Site 1	5%	Kirkby/ Pinxton Ln	25,000	275,000	474,908	409,500	344,093	277,559	210,577	142,561	73,649	2,711	-73,591
Site 1	10%	Kirkby/ Pinxton Ln	25,000	275,000	448,522	383,114	317,707	250,729	183,747	115,084	45,615	-27,020	-104,519
Site 1	15%	Kirkby/ Pinxton Ln	25,000	275,000	422,138	356,730	290,880	223,898	156,518	87,606	17,264	-57,799	-136,586
Site 1	20%	Kirkby/ Pinxton Ln	25,000	275,000	395,672	330,265	263,967	196,986	128,956	60,044	-11,860	-88,823	-169,870
Site 1	25%	Kirkby/ Pinxton Ln	25,000	275,000	369,278	303,871	237,126	170,145	101,467	31,700	-42,116	-120,449	-204,713
Site 1	30%	Kirkby/ Pinxton Ln	25,000	275,000	342,924	277,307	210,326	142,931	74,019	3,380	-73,011	-153,189	-241,757
Site 2	0%	Cauldwell/ Derby Rd	25,000	275,000	567,113	495,463	423,812	351,742	278,284	204,827	129,353	53,276	-26,589
Site 2	5%	Cauldwell/ Derby Rd	25,000	275,000	538,187	466,537	394,887	322,308	248,851	174,861	99,167	22,065	-59,931
Site 2	10%	Cauldwell/ Derby Rd	25,000	275,000	508,507	436,856	365,206	292,094	218,636	143,867	68,173	-10,695	-94,992
Site 2	15%	Cauldwell/ Derby Rd	25,000	275,000	479,635	407,985	336,173	262,715	189,257	113,737	37,270	-43,399	-129,074
Site 2	20%	Cauldwell/ Derby Rd	25,000	275,000	450,498	378,848	306,505	233,047	158,994	83,300	5,793	-77,832	-165,166
Site 2	25%	Cauldwell/ Derby Rd	25,000	275,000	421,041	349,391	276,532	203,075	128,256	52,420	-27,487	-112,601	-201,981
Site 2	30%	Cauldwell/ Derby Rd	25,000	275,000	391,561	319,911	246,522	173,064	97,471	20,585	-61,752	-148,635	-241,696

Source: HDH (June 2020)

9.19 When modelled on this basis the results are better showing an ability to bear affordable housing and developer contributions, albeit less than the Council's policy aspirations and less than the requirements in terms of infrastructure, for these sites to be delivered. This analysis must be treated with caution as it is speculative in terms of whether or not such a proposal would be appropriate (in terms of demand) in the Ashfield market.

10. Findings and Recommendations

10.1 The results for Site 1(Kirkby/ Pinxton Ln) and Site 2 (Cauldwell/ Derby Rd) appraisals demonstrate that strategic scale development in Ashfield is likely to be challenging from a viability standpoint. The results show that the affordable housing targets and s106 planning obligations will need to be reduced (or potentially removed) in order generate a sufficient land value to enable the sites for development.

10.2 Modelling for both sites that applies the BCIS median construction costs (it is normal practice to use the median costs in planning viability assessments) is unviable (even when discounting abnormal costs, assuming zero planning obligations and delivering 0% affordable housing). Applying the lower quartile BCIS costs improves the results somewhat for both sites. But only limited amounts of affordable housing and planning obligations may be possible.

10.3 Site 1 is shown as viable when using the BCIS lower quartile constructions costs, discounting abnormal costs, assuming 0-5% affordable housing level and £0 to £5,000/unit planning obligations.

10.4 Site 2 is shown as viable when using the BCIS lower quartile constructions costs, with abnormal costs, assuming 0-5% affordable housing level and zero planning obligations. When discounting abnormal costs, Site 2 is shown as viable with up to 25% affordable housing level (and zero planning obligations); or up to 10% affordable housing level (and £5,000/unit planning obligations).

10.5 An alternate set of appraisals applying 13% site costs, and an increase to sales values (+5%), broadly in line with Garden Town principles has been included as an additional scenario for both sites. These do not make specific allowance for abnormal costs, but results were better overall but still generally unviable above planning obligations of £15,000/unit (below the required level of ~£30,000/unit). Whilst the adoption of the Garden Town approach would improve viability, it would not obviate the abnormal costs and planning obligations identified as being necessary for these two sites to come forward.

10.6 Based on the high level viability modelling, Site 2 demonstrates the greater prospects of being a deliverable/developable site at this early stage in the plan making process. Site 1 contains a higher incidence of constraints (in comparison to Site 2) that would require significant reinforcement/mitigation resulting in an increase to costs. However, both sites were found to be unviable when applying BCIS median construction costs, abnormal costs and planning obligations likely to be required to bring forward the sites (approximately £30,000/unit). Neither site has very much scope to be enlarged and provide more housing based on our analysis of the constraints. In conclusion, neither site could bear the fully policy requirements for affordable housing and it is highly likely that both sites would require subsidy in order to be brought forward in their current format.

Appendix 1 – Development Appraisals

Base
Cover

Ashfield Sites

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Base
Site make up

Number	1	Units	NET Area	Density	erage Unit Size	Developed	Density	Total Cost	Rate	Locality	een/ Brown	lternative Use
				Units/ha	m2	m2	m2/ha		£/m2			
Site 1		**1,611**	**46.03**	**35.00**	**98**	**158,476**	**3,443**	**200,530,074**	**1,265.37**	Kirkby/ Pin›	Green	Agricultural

		Beds	No		m2	Total		BCIS	COST
Market									0
Flat	1		80		45.00	3,600.00	10%	1,341	5,310,360
	2		0		65.00	0.00	10%	1,341	0
Terrace	2		242		75.00	18,150.00		1,222	22,179,300
	3		322		95.00	30,590.00		1,222	37,380,980
Semi	2		242		85.00	20,570.00		1,229	25,280,530
	3		483		107.00	51,681.00		1,229	63,515,949
Det	3		0		112.00	0.00		1,383	0
	4		161		135.00	21,735.00		1,383	30,059,505
	5		81		150.00	12,150.00		1,383	16,803,450
Flat 1 High*	1		0		45.00	0.00	10%	1,393	0
Flat 2 High*	2		0		65.00	0.00	10%	1,393	0
Flat 3 High*	3		0		75.00	0.00	10%	1,393	0
Affordable									
Flat	1		0		40.00	0.00	10%	1,341	0
	2		0		61.00	0.00	10%	1,341	0
Terrace	2		0		70.00	0.00		1,222	0
	3		0		84.00	0.00		1,222	0
Semi	2		0		79.00	0.00		1,229	0
	3		0		93.00	0.00		1,229	0
Det	3		0		93.00	0.00		1,383	0
	4		0		100.00	0.00		1,383	0
	5		0		110.00	0.00		1,383	0
Flat 1 High*	1		0		40.00	0.00	10%	1,393	0
Flat 2 High*	2		0		61.00	0.00	10%	1,393	0
Flat 3 High*	3		0		74.00	0.00	10%	1,393	0

Area	Gross	76.720
	Net	46.029

Number	2	Units	Area	Density	erage Unit Size	Developed	Density	Total Cost	Rate	Locality	een/Brown	lternative Use
			ha	Units/ha	m2	m2	m2/ha		£/m2			
Site 1		**1,611**	**46.03**	**35.00**	**97**	**156,129**	**3,392**	**197,630,929**	**1,265.82**	Kirkby/ Pin›	Green	Agricultural

		Beds	No		m2	Total		BCIS	COST
Market									0
Flat	1		75		45.00	3,375.00	10%	1,341	4,978,463
	2		0		65.00	0.00	10%	1,341	0
Terrace	2		230		75.00	17,250.00		1,222	21,079,500
	3		306		95.00	29,070.00		1,222	35,523,540
Semi	2		230		85.00	19,550.00		1,229	24,026,950
	3		459		107.00	49,113.00		1,229	60,359,877
Det	3		0		112.00	0.00		1,383	0
	4		153		135.00	20,655.00		1,383	28,565,865
	5		77		150.00	11,550.00		1,383	15,973,650
Flat 1 High*	1		0		45.00	0.00	10%	1,393	0
Flat 2 High*	2		0		65.00	0.00	10%	1,393	0
Flat 3 High*	3		0		75.00	0.00	10%	1,393	0
Affordable									
Flat	1		24		40.00	960.00	10%	1,341	1,416,096
	2		0		61.00	0.00	10%	1,341	0
Terrace	2		17		70.00	1,190.00		1,222	1,454,180
	3		12		84.00	1,008.00		1,222	1,231,776
Semi	2		16		79.00	1,264.00		1,229	1,553,456
	3		8		93.00	744.00		1,229	914,376
Det	3		0		93.00	0.00		1,383	0
	4		4		100.00	400.00		1,383	553,200
	5		0		110.00	0.00		1,383	0
Flat 1 High*	1		0		40.00	0.00	10%	1,393	0
Flat 2 High*	2		0		61.00	0.00	10%	1,393	0
Flat 3 High*	3		0		74.00	0.00	10%	1,393	0

Area	Gross	76.720
	Net	46.029

Base
Site make up

Number	3	Units	Area ha	Density Units/ha	erage Unit Size m2	Developed m2	Density m2/ha	Total Cost	Rate £/m2	Locality	een/Brown	lternative Use
Site 1		**1,611**	**46.03**	**35.00**	**95**	**153,706**	**3,339**	**194,638,443**	**1,266.30**	Kirkby/ Pin›	Green	Agricultural

	Beds	No		m2	Total		BCIS	COST
Market								0
Flat	1	72		45.00	3,240.00	10%	1,341	4,779,324
	2	0		65.00	0.00	10%	1,341	0
Terrace	2	217		75.00	16,275.00		1,222	19,888,050
	3	290		95.00	27,550.00		1,222	33,666,100
Semi	2	217		85.00	18,445.00		1,229	22,668,905
	3	437		107.00	46,759.00		1,229	57,466,811
Det	3	0		112.00	0.00		1,383	0
	4	145		135.00	19,575.00		1,383	27,072,225
	5	72		150.00	10,800.00		1,383	14,936,400
Flat 1 High*	6	0		45.00	0.00	10%	1,393	0
Flat 2 High*	2	0		65.00	0.00	10%	1,393	0
Flat 3 High*	3	0		75.00	0.00	10%	1,393	0
Affordable								
Flat	1	48		40.00	1,920.00	10%	1,341	2,832,192
	2	0		61.00	0.00	10%	1,341	0
Terrace	2	33		70.00	2,310.00		1,222	2,822,820
	3	24		84.00	2,016.00		1,222	2,463,552
Semi	2	32		79.00	2,528.00		1,229	3,106,912
	3	16		93.00	1,488.00		1,229	1,828,752
Det	3	0		93.00	0.00		1,383	0
	4	8		100.00	800.00		1,383	1,106,400
	5	0		110.00	0.00		1,383	0
Flat 1 High*	1	0		40.00	0.00	10%	1,393	0
Flat 2 High*	2	0		61.00	0.00	10%	1,393	0
Flat 3 High*	3	0		74.00	0.00	10%	1,393	0

Area	Gross	76.720
	Net	46.029

Number	4	Units	Area ha	Density Units/ha	erage Unit Size m2	Developed m2	Density m2/ha	Total Cost	Rate £/m2	Locality	een/Brown	lternative Use
Site 1		**1,611**	**46.03**	**35.00**	**94**	**151,297**	**3,287**	**191,674,174**	**1,266.87**	Kirkby/ Pin›	Green	Agricultural

	Beds	No		m2	Total		BCIS	COST
Market								0
Flat	1	68		45.00	3,060.00	10%	1,341	4,513,806
	2	0		65.00	0.00	10%	1,341	0
Terrace	2	205		75.00	15,375.00		1,222	18,788,250
	3	274		95.00	26,030.00		1,222	31,808,660
Semi	2	205		85.00	17,425.00		1,229	21,415,325
	3	412		107.00	44,084.00		1,229	54,179,236
Det	3	0		112.00	0.00		1,383	0
	4	137		135.00	18,495.00		1,383	25,578,585
	5	68		150.00	10,200.00		1,383	14,106,600
Flat 1 High*	1	0		45.00	0.00	10%	1,393	0
Flat 2 High*	2	0		65.00	0.00	10%	1,393	0
Flat 3 High*	3	0		75.00	0.00	10%	1,393	0
Affordable								
Flat	1	72		40.00	2,880.00	10%	1,341	4,248,288
	2	0		61.00	0.00	10%	1,341	0
Terrace	2	50		70.00	3,500.00		1,222	4,277,000
	3	36		84.00	3,024.00		1,222	3,695,328
Semi	2	48		79.00	3,792.00		1,229	4,660,368
	3	24		93.00	2,232.00		1,229	2,743,128
Det	3	0		93.00	0.00		1,383	0
	4	12		100.00	1,200.00		1,383	1,659,600
	5	0		110.00	0.00		1,383	0
Flat 1 High*	1	0		40.00	0.00	10%	1,393	0
Flat 2 High*	2	0		61.00	0.00	10%	1,393	0
Flat 3 High*	3	0		74.00	0.00	10%	1,393	0

Area	Gross	76.720
	Net	46.029

Base
Site make up

Number	5	Units	Area	Density	erage Unit Size	Developed	Density		Total Cost	Rate	Locality	een/Brown	lternative Use
			ha	Units/ha	m2	m2	m2/ha			£/m2			
Site 1		**1,611**	**46.03**	**35.00**	**92**	**148,895**	**3,235**		**188,729,332**	**1,267.53**	Kirkby/ Pin›	Green	Agricultural

	Beds	No		m2	Total		BCIS	COST
Market								0
Flat	1	64		45.00	2,880.00	10%	1,341	4,248,288
	2	0		65.00	0.00	10%	1,341	0
Terrace	2	193		75.00	14,475.00		1,222	17,688,450
	3	258		95.00	24,510.00		1,222	29,951,220
Semi	2	193		85.00	16,405.00		1,229	20,161,745
	3	388		107.00	41,516.00		1,229	51,023,164
Det	3	0		112.00	0.00		1,383	0
	4	129		135.00	17,415.00		1,383	24,084,945
	5	64		150.00	9,600.00		1,383	13,276,800
Flat 1 High*	1	0		45.00	0.00	10%	1,393	0
Flat 2 High*	2	0		65.00	0.00	10%	1,393	0
Flat 3 High*	3	0		75.00	0.00	10%	1,393	0
Affordable								
Flat	1	97		40.00	3,880.00	10%	1,341	5,723,388
	2	0		61.00	0.00	10%	1,341	0
Terrace	2	65		70.00	4,550.00		1,222	5,560,100
	3	48		84.00	4,032.00		1,222	4,927,104
Semi	2	64		79.00	5,056.00		1,229	6,213,824
	3	32		93.00	2,976.00		1,229	3,657,504
Det	3	0		93.00	0.00		1,383	0
	4	16		100.00	1,600.00		1,383	2,212,800
	5	0		110.00	0.00		1,383	0
Flat 1 High*	1	0		40.00	0.00	10%	1,393	0
Flat 2 High*	2	0		61.00	0.00	10%	1,393	0
Flat 3 High*	3	0		74.00	0.00	10%	1,393	0

Area	Gross	76.720
	Net	46.029

Number	6	Units	Area	Density	erage Unit Size	Developed	Density		Total Cost	Rate	Locality	een/Brown	lternative Use
			ha	Units/ha	m2	m2	m2/ha			£/m2			
Site 1		**1,611**	**46.03**	**35.00**	**91**	**146,495**	**3,183**		**185,776,614**	**1,268.14**	Kirkby/ Pin›	Green	Agricultural

	Beds	No		m2	Total		BCIS	COST
Market								0
Flat	1	60		45.00	2,700.00	10%	1,341	3,982,770
	2	0		65.00	0.00	10%	1,341	0
Terrace	2	181		75.00	13,575.00		1,222	16,588,650
	3	242		95.00	22,990.00		1,222	28,093,780
Semi	2	181		85.00	15,385.00		1,229	18,908,165
	3	363		107.00	38,841.00		1,229	47,735,589
Det	3	0		112.00	0.00		1,383	0
	4	121		135.00	16,335.00		1,383	22,591,305
	5	60		150.00	9,000.00		1,383	12,447,000
Flat 1 High*	1	0		45.00	0.00	10%	1,393	0
Flat 2 High*	2	0		65.00	0.00	10%	1,393	0
Flat 3 High*	3	0		75.00	0.00	10%	1,393	0
Affordable								
Flat	1	121		40.00	4,840.00	10%	1,341	7,139,484
	2	0		61.00	0.00	10%	1,341	0
Terrace	2	81		70.00	5,670.00		1,222	6,928,740
	3	60		84.00	5,040.00		1,222	6,158,880
Semi	2	81		79.00	6,399.00		1,229	7,864,371
	3	40		93.00	3,720.00		1,229	4,571,880
Det	3	0		93.00	0.00		1,383	0
	4	20		100.00	2,000.00		1,383	2,766,000
	5	0		110.00	0.00		1,383	0
Flat 1 High*	1	0		40.00	0.00	10%	1,393	0
Flat 2 High*	2	0		61.00	0.00	10%	1,393	0
Flat 3 High*	3	0		74.00	0.00	10%	1,393	0

Area	Gross	76.720
	Net	46.029

Base
Site make up

Number	7	Units	Area ha	Density Units/ha	erage Unit Size m2	Developed m2	Density m2/ha	Total Cost	Rate £/m2	Locality	een/Brown	lternative Use
Site 1		**1,611**	**46.03**	**35.00**	**89**	**144,123**	**3,131**	**182,858,308**	**1,268.77**	Kirkby/ Pin›	Green	Agricultural

		Gross	76.720
Area		Net	46.029

	Beds	No		m2	Total		BCIS	COST
Market								0
Flat	1	56		45.00	2,520.00	10%	1,341	3,717,252
	2	0		65.00	0.00	10%	1,341	0
Terrace	2	169		75.00	12,675.00		1,222	15,488,850
	3	226		95.00	21,470.00		1,222	26,236,340
Semi	2	169		85.00	14,365.00		1,229	17,654,585
	3	339		107.00	36,273.00		1,229	44,579,517
Det	3	0		112.00	0.00		1,383	0
	4	113		135.00	15,255.00		1,383	21,097,665
	5	56		150.00	8,400.00		1,383	11,617,200
Flat 1 High*	1	0		45.00	0.00	10%	1,393	0
Flat 2 High*	2	0		65.00	0.00	10%	1,393	0
Flat 3 High*	3	0		75.00	0.00	10%	1,393	0
Affordable								
Flat	1	145		40.00	5,800.00	10%	1,341	8,555,580
	2	0		61.00	0.00	10%	1,341	0
Terrace	2	97		70.00	6,790.00		1,222	8,297,380
	3	72		84.00	6,048.00		1,222	7,390,656
Semi	2	97		79.00	7,663.00		1,229	9,417,827
	3	48		93.00	4,464.00		1,229	5,486,256
Det	3	0		93.00	0.00		1,383	0
	4	24		100.00	2,400.00		1,383	3,319,200
	5	0		110.00	0.00		1,383	0
Flat 1 High*	1	0		40.00	0.00	10%	1,393	0
Flat 2 High*	2	0		61.00	0.00	10%	1,393	0
Flat 3 High*	3	0		74.00	0.00	10%	1,393	0

Number	8	Units	Area ha	Density Units/ha	erage Unit Size m2	Developed m2	Density m2/ha	Total Cost	Rate £/m2	Locality	een/ Brown	lternative Use
Site 2		**994**	**28.40**	**35.00**	**98**	**97,746**	**3,442**	**123,686,209**	**1,265.38**	Cauldwell/	Green	Agricultural

		Gross	47.320
Area		Net	28.400

	Beds	No		m2	Total		BCIS	COST
Market								0
Flat	1	50		45.00	2,250.00	10%	1,341	3,318,975
	2	0		65.00	0.00	10%	1,341	0
Terrace	2	149		75.00	11,175.00		1,222	13,655,850
	3	199		95.00	18,905.00		1,222	23,101,910
Semi	2	149		85.00	12,665.00		1,229	15,565,285
	3	298		107.00	31,886.00		1,229	39,187,894
Det	3	0		112.00	0.00		1,383	0
	4	99		135.00	13,365.00		1,383	18,483,795
	5	50		150.00	7,500.00		1,383	10,372,500
Flat 1 High*	1	0		45.00	0.00	10%	1,393	0
Flat 2 High*	2	0		65.00	0.00	10%	1,393	0
Flat 3 High*	3	0		75.00	0.00	10%	1,393	0
Affordable								
Flat	1	0		40.00	0.00	10%	1,341	0
	2	0		61.00	0.00	10%	1,341	0
Terrace	2	0		70.00	0.00		1,222	0
	3	0		84.00	0.00		1,222	0
Semi	2	0		79.00	0.00		1,229	0
	3	0		93.00	0.00		1,229	0
Det	3	0		93.00	0.00		1,383	0
	4	0		100.00	0.00		1,383	0
	5	0		110.00	0.00		1,383	0
Flat 1 High*	1	0		40.00	0.00	10%	1,393	0
Flat 2 High*	2	0		61.00	0.00	10%	1,393	0
Flat 3 High*	3	0		74.00	0.00	10%	1,393	0

Base
Site make up

Number	9	Units	Area	Density	erage Unit Size	Developed	Density		Total Cost	Rate	Locality	een/Brown	lternative Use
			ha	Units/ha	m2	m2	m2/ha			£/m2			
Site 2		**994**	**28.40**	**35.00**	**97**	**96,224**	**3,388**		**121,788,477**	**1,265.68**	Cauldwell/	Green	Agricultural

	Beds	No		m2	Total		BCIS	COST
Market								0
Flat	1	47		45.00	2,115.00	10%	1,341	3,119,837
	2	0		65.00	0.00	10%	1,341	0
Terrace	2	142		75.00	10,650.00		1,222	13,014,300
	3	189		95.00	17,955.00		1,222	21,941,010
Semi	2	142		85.00	12,070.00		1,229	14,834,030
	3	283		107.00	30,281.00		1,229	37,215,349
Det	3	0		112.00	0.00		1,383	0
	4	94		135.00	12,690.00		1,383	17,550,270
	5	47		150.00	7,050.00		1,383	9,750,150
Flat 1 High*	1	0		45.00	0.00	10%	1,393	0
Flat 2 High*	2	0		65.00	0.00	10%	1,393	0
Flat 3 High*	3	0		75.00	0.00	10%	1,393	0
Affordable								
Flat	1	15		40.00	600.00	10%	1,341	885,060
	2	0		61.00	0.00	10%	1,341	0
Terrace	2	11		70.00	770.00		1,222	940,940
	3	7		84.00	588.00		1,222	718,536
Semi	2	10		79.00	790.00		1,229	970,910
	3	5		93.00	465.00		1,229	571,485
Det	3	0		93.00	0.00		1,383	0
	4	2		100.00	200.00		1,383	276,600
	5	0		110.00	0.00		1,383	0
Flat 1 High*	1	0		40.00	0.00	10%	1,393	0
Flat 2 High*	2	0		61.00	0.00	10%	1,393	0
Flat 3 High*	3	0		74.00	0.00	10%	1,393	0

Area	Gross	47.320
	Net	28.400

Number	10	Units	Area	Density	erage Unit Size	Developed	Density		Total Cost	Rate	Locality	een/Brown	lternative Use
			ha	Units/ha	m2	m2	m2/ha			£/m2			
Site 2		**994**	**28.40**	**35.00**	**95**	**94,781**	**3,337**		**120,038,327**	**1,266.48**	Cauldwell/	Green	Agricultural

	Beds	No		m2	Total		BCIS	COST
Market								0
Flat	1	45		45.00	2,025.00	10%	1,341	2,987,078
	2	0		65.00	0.00	10%	1,341	0
Terrace	2	134		75.00	10,050.00		1,222	12,281,100
	3	179		95.00	17,005.00		1,222	20,780,110
Semi	2	134		85.00	11,390.00		1,229	13,998,310
	3	268		107.00	28,676.00		1,229	35,242,804
Det	3	0		112.00	0.00		1,383	0
	4	89		135.00	12,015.00		1,383	16,616,745
	5	45		150.00	6,750.00		1,383	9,335,250
Flat 1 High*	1	0		45.00	0.00	10%	1,393	0
Flat 2 High*	2	0		65.00	0.00	10%	1,393	0
Flat 3 High*	3	0		75.00	0.00	10%	1,393	0
Affordable								
Flat	1	30		40.00	1,200.00	10%	1,341	1,770,120
	2	0		61.00	0.00	10%	1,341	0
Terrace	2	20		70.00	1,400.00		1,222	1,710,800
	3	15		84.00	1,260.00		1,222	1,539,720
Semi	2	20		79.00	1,580.00		1,229	1,941,820
	3	10		93.00	930.00		1,229	1,142,970
Det	3	0		93.00	0.00		1,383	0
	4	5		100.00	500.00		1,383	691,500
	5	0		110.00	0.00		1,383	0
Flat 1 High*	1	0		40.00	0.00	10%	1,393	0
Flat 2 High*	2	0		61.00	0.00	10%	1,393	0
Flat 3 High*	3	0		74.00	0.00	10%	1,393	0

Area	Gross	47.320
	Net	28.400

Base
Site make up

Number	11	Units	Area ha	Density	erage Unit Size m2	Developed m2	Density m2/ha	Total Cost	Rate £/m2	Locality	een/Brown	lternative Use
Site 2		**994**	**28.40**	**35.00**	**94**	**93,296**	**3,285**	**118,186,557**	**1,266.79**	Cauldwell/	Green	Agricultural

	Beds	No		m2	Total		BCIS	COST
Market								0
Flat	1	42		45.00	1,890.00	10%	1,341	2,787,939
	2	0		65.00	0.00	10%	1,341	0
Terrace	2	127		75.00	9,525.00		1,222	11,639,550
	3	169		95.00	16,055.00		1,222	19,619,210
Semi	2	127		85.00	10,795.00		1,229	13,267,055
	3	254		107.00	27,178.00		1,229	33,401,762
Det	3	0		112.00	0.00		1,383	0
	4	84		135.00	11,340.00		1,383	15,683,220
	5	42		150.00	6,300.00		1,383	8,712,900
Flat 1 High*	1	0		45.00	0.00	10%	1,393	0
Flat 2 High*	2	0		65.00	0.00	10%	1,393	0
Flat 3 High*	3	0		75.00	0.00	10%	1,393	0
Affordable								
Flat	1	45		40.00	1,800.00	10%	1,341	2,655,180
	2	0		61.00	0.00	10%	1,341	0
Terrace	2	30		70.00	2,100.00		1,222	2,566,200
	3	22		84.00	1,848.00		1,222	2,258,256
Semi	2	30		79.00	2,370.00		1,229	2,912,730
	3	15		93.00	1,395.00		1,229	1,714,455
Det	3	0		93.00	0.00		1,383	0
	4	7		100.00	700.00		1,383	968,100
	5	0		110.00	0.00		1,383	0
Flat 1 High*	1	0		40.00	0.00	10%	1,393	0
Flat 2 High*	2	0		61.00	0.00	10%	1,393	0
Flat 3 High*	3	0		74.00	0.00	10%	1,393	0

Area	Gross	47.320
	Net	28.400

Number	12	Units	Area ha	Density	erage Unit Size m2	Developed m2	Density m2/ha	Total Cost	Rate £/m2	Locality	een/Brown	lternative Use
Site 2		**994**	**28.40**	**35.00**	**93**	**91,973**	**3,238**	**116,583,269**	**1,267.58**	Cauldwell/	Green	Agricultural

	Beds	No		m2	Total		BCIS	COST
Market								0
Flat	1	39		45.00	1,755.00	10%	1,341	2,588,801
	2	0		65.00	0.00	10%	1,341	0
Terrace	2	119		75.00	8,925.00		1,222	10,906,350
	3	159		95.00	15,105.00		1,222	18,458,310
Semi	2	119		85.00	10,115.00		1,229	12,431,335
	3	239		107.00	25,573.00		1,229	31,429,217
Det	3	0		112.00	0.00		1,383	0
	4	80		135.00	10,800.00		1,383	14,936,400
	5	40		150.00	6,000.00		1,383	8,298,000
Flat 1 High*	1	0		45.00	0.00	10%	1,393	0
Flat 2 High*	2	0		65.00	0.00	10%	1,393	0
Flat 3 High*	3	0		75.00	0.00	10%	1,393	0
Affordable								
Flat	1	59		40.00	2,360.00	10%	1,341	3,481,236
	2	0		61.00	0.00	10%	1,341	0
Terrace	2	40		70.00	2,800.00		1,222	3,421,600
	3	30		84.00	2,520.00		1,222	3,079,440
Semi	2	40		79.00	3,160.00		1,229	3,883,640
	3	20		93.00	1,860.00		1,229	2,285,940
Det	3	0		93.00	0.00		1,383	0
	4	10		100.00	1,000.00		1,383	1,383,000
	5	0		110.00	0.00		1,383	0
Flat 1 High*	1	0		40.00	0.00	10%	1,393	0
Flat 2 High*	2	0		61.00	0.00	10%	1,393	0
Flat 3 High*	3	0		74.00	0.00	10%	1,393	0

Area	Gross	47.320
	Net	28.400

Base
Site make up

Number	13	Units	Area ha	Density Units/ha	erage Unit Size m2	Developed m2	Density m2/ha	Total Cost	Rate £/m2	Locality	een/Brown	lternative Use
Site 2		**994**	**28.40**	**35.00**	**91**	**90,426**	**3,184**	**114,666,376**	**1,268.07**	Cauldwell/	Green	Agricultural

	Beds	No		m2	Total		BCIS	COST
Market								0
Flat	1	37		45.00	1,665.00	10%	1,341	2,456,042
	2	0		65.00	0.00	10%	1,341	0
Terrace	2	112		75.00	8,400.00		1,222	10,264,800
	3	149.0		95.00	14,155.00		1,222	17,297,410
Semi	2	112		85.00	9,520.00		1,229	11,700,080
	3	224		107.00	23,968.00		1,229	29,456,672
Det	3	0		112.00	0.00		1,383	0
	4	75		135.00	10,125.00		1,383	14,002,875
	5	37		150.00	5,550.00		1,383	7,675,650
Flat 1 High*	1	0		45.00	0.00	10%	1,393	0
Flat 2 High*	2	0		65.00	0.00	10%	1,393	0
Flat 3 High*	3	0		75.00	0.00	10%	1,393	0
Affordable							0	
Flat	1	74		40.00	2,960.00	10%	1,341	4,366,296
	2	0		61.00	0.00	10%	1,341	0
Terrace	2	50.0		70.00	3,500.00		1,222	4,277,000
	3	37		84.00	3,108.00		1,222	3,797,976
Semi	2	50		79.00	3,950.00		1,229	4,854,550
	3	25		93.00	2,325.00		1,229	2,857,425
Det	3	0		93.00	0.00		1,383	0
	4	12		100.00	1,200.00		1,383	1,659,600
	5	0		110.00	0.00		1,383	0
Flat 1 High*	1	0		40.00	0.00	10%	1,393	0
Flat 2 High*	2	0		61.00	0.00	10%	1,393	0
Flat 3 High*	3	0		74.00	0.00	10%	1,393	0

Area	Gross	47.320
	Net	28.400

Number	14	Units	Area ha	Density Units/ha	erage Unit Size m2	Developed m2	Density m2/ha	Total Cost	Rate £/m2	Locality	een/Brown	lternative Use
Site 2		**994**	**28.40**	**35.00**	**90**	**89,013**	**3,134**	**112,942,762**	**1,268.83**	Cauldwell/	Green	Agricultural

	Beds	No		m2	Total		BCIS	COST
Market								0
Flat	1	35		45.00	1,575.00	10%	1,341	2,323,283
	2	0		65.00	0.00	10%	1,341	0
Terrace	2	104		75.00	7,800.00		1,222	9,531,600
	3	139		95.00	13,205.00		1,222	16,136,510
Semi	2	104.0		85.00	8,840.00		1,229	10,864,360
	3	209.0		107.00	22,363.00		1,229	27,484,127
Det	3	0		112.00	0.00		1,383	0
	4	70		135.00	9,450.00		1,383	13,069,350
	5	35		150.00	5,250.00		1,383	7,260,750
Flat 1 High*	1	0		45.00	0.00	10%	1,393	0
Flat 2 High*	2	0		65.00	0.00	10%	1,393	0
Flat 3 High*	3	0		75.00	0.00	10%	1,393	0
Affordable							0	
Flat	1	88		40.00	3,520.00	10%	1,341	5,192,352
	2	0		61.00	0.00	10%	1,341	0
Terrace	2	60		70.00	4,200.00		1,222	5,132,400
	3	45		84.00	3,780.00		1,222	4,619,160
Semi	2	60.0		79.00	4,740.00		1,229	5,825,460
	3	30		93.00	2,790.00		1,229	3,428,910
Det	3	0		93.00	0.00		1,383	0
	4	15		100.00	1,500.00		1,383	2,074,500
	5	0		110.00	0.00		1,383	0
Flat 1 High*	1	0		40.00	0.00	10%	1,393	0
Flat 2 High*	2	0		61.00	0.00	10%	1,393	0
Flat 3 High*	3	0		74.00	0.00	10%	1,393	0

Area	Gross	47.320
	Net	28.400

Base
For Apps

			Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11	Site 12	Site 13	Site 14
			Site 1	Site 1	Site 1	Site 1	Site 1	Site 1	Site 1	Site 2	Site 2	Site 2	Site 2	Site 2	Site 2	Site 2
	Green/brown field		Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Use		Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural
	Locality		Kirkby/ Pinxton Ln	Kirkby/ Pinxton Ln	Kirkby/ Pinxton Ln	Kirkby/ Pinxton Ln	Kirkby/ Pinxton Ln	Kirkby/ Pinxton Ln	Kirkby/ Pinxton Ln	Cauldwell/ Derby Rd	Cauldwell/ Derby Rd	Cauldwell/ Derby Rd	Cauldwell/ Derby Rd	Cauldwell/ Derby Rd	Cauldwell/ Derby Rd	Cauldwell/ Derby Rd
Site Area	**Gross**	**ha**	76.72	76.72	76.72	76.72	76.72	76.72	76.72	47.32	47.32	47.32	47.32	47.32	47.32	47.32
	Net	ha	46.03	46.03	46.03	46.03	46.03	46.03	46.03	28.40	28.40	28.40	28.40	28.40	28.40	28.40
Units			1,611	1,611	1,611	1,611	1,611	1,611	1,611	994	994	994	994	994	994	994
Average Unit Size		m2	98.37	96.91	95.41	93.91	92.42	90.93	89.46	98.34	96.80	95.35	93.86	92.53	90.97	89.55
Mix	Intermediate to Buy		0.00%	3.35%	6.70%	10.05%	13.40%	16.75%	20.10%	0.00%	3.35%	6.70%	10.05%	13.40%	16.75%	20.10%
	Affordable Rent		0.00%	1.65%	3.30%	4.95%	6.60%	8.25%	9.90%	0.00%	1.65%	3.30%	4.95%	6.60%	8.25%	9.90%
	Social Rent															
Price	Market	£/m2	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300
	Intermediate to Buy	£/m2	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840
	Affordable Rent	£/m2	1,673	1,673	1,673	1,673	1,673	1,673	1,673	1,673	1,673	1,673	1,673	1,673	1,673	1,673
	Social Rent	£/m2	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384
Grant and Subsic	Intermediate to Buy	£/unit														
	Affordable Rent	£/unit														
	Social Rent	£/unit														
Sales per Quarter																
Unit Build Time			3	3	3	3	3	3	3	3	3	3	3	3	3	3
Alternative Use Value		£/ha	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Up Lift %		%														
Additional Uplift		£/ha	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000
Easements etc		£	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legals / Acquisition		% land	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
Planning Fee	<50	£/unit	462	462	462	462	462	462	462	462	462	462	462	462	462	462
	>50	£/unit	138	138	138	138	138	138	138	138	138	138	138	138	138	138
Architects		%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
QS / PM		%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Planning Consultants		%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Other Professional		%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
BCIS		£/m2	1,265	1,266	1,266	1,267	1,268	1,268	1,269	1,265	1,266	1,266	1,267	1,268	1,268	1,269
Energy		%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Energy		£/m2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Design		£/m2		0	0	0	0	0	0	0	0	0	0	0	0	0
Acc & Adpt		£/m2	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Water		£/m2	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Small Sites		%														
Site Costs		%	15.66%	15.66%	15.66%	15.66%	15.66%	15.66%	15.66%	15.66%	15.66%	15.66%	15.66%	15.66%	15.66%	15.66%
Pre CIL s106		£/Unit	22,900	22,900	22,900	22,900	22,900	22,900	22,900	25,900	25,900	25,900	25,900	25,900	25,900	25,900
Post CIL s106		£/Unit	22,900	22,900	22,900	22,900	22,900	22,900	22,900	25,900	25,900	25,900	25,900	25,900	25,900	25,900
		£/m2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LIT		%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Contingency		%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Abnormals		%														
		£/site	11,810,730	11,810,730	11,810,730	11,810,730	11,810,730	11,810,730	11,810,730	7,559,640	7,559,640	7,559,640	7,559,640	7,559,640	7,559,640	7,559,640
FINANCE	Fees	£														
	Interest	%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%
	Legal and Valuation	£														
SALES	Agents	%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
	Legals	%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
	Misc.	£		0	0	0	0	0	0	0	0	0	0	0	0	0
Developers Profi	Market Housing		17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%
	Affordable Housing		17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%	17.50%

			Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11	Site 12	Site 13	Site 14
			Site 1	Site 1	Site 1	Site 1	Site 1	Site 1	Site 1	Site 2	Site 2	Site 2	Site 2	Site 2	Site 2	Site 2
Green/brown field			Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Use			Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural	Agricultural
Site Are Gross		ha	76.72	76.72	76.72	76.72	76.72	76.72	76.72	47.32	47.32	47.32	47.32	47.32	47.32	47.32
Net		ha	46.03	46.03	46.03	46.03	46.03	46.03	46.03	28.40	28.40	28.40	28.40	28.40	28.40	28.40
Units			1611	1611	1611	1611	1611	1611	1611	994	994	994	994	994	994	994
Mix	Market		100.00%	95.00%	90.00%	85.00%	80.00%	75.00%	70.00%	100.00%	95.00%	90.00%	85.00%	80.00%	75.00%	70.00%
	Intermediate to Buy		0.00%	3.35%	6.70%	10.05%	13.40%	16.75%	20.10%	0.00%	3.35%	6.70%	10.05%	13.40%	16.75%	20.10%
	Affordable Rent		0.00%	1.65%	3.30%	4.95%	6.60%	8.25%	9.90%	0.00%	1.65%	3.30%	4.95%	6.60%	8.25%	9.90%
	Social Rent		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Existing Use Value		£/ha	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
		£ site	1,918,000	1,918,000	1,918,000	1,918,000	1,918,000	1,918,000	1,918,000	1,183,000	1,183,000	1,183,000	1,183,000	1,183,000	1,183,000	1,183,000
Uplift		£/ha	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000
		£ site	19,180,000	19,180,000	19,180,000	19,180,000	19,180,000	19,180,000	19,180,000	11,830,000	11,830,000	11,830,000	11,830,000	11,830,000	11,830,000	11,830,000
Benchmark Land Value		£/ha	275,000	275,000	275,000	275,000	275,000	275,000	275,000	275,000	275,000	275,000	275,000	275,000	275,000	275,000
		£ site	21,098,000	21,098,000	21,098,000	21,098,000	21,098,000	21,098,000	21,098,000	13,013,000	13,013,000	13,013,000	13,013,000	13,013,000	13,013,000	13,013,000
Residua Gross		£/ha	-367,366	-402,060	-437,002	-472,043	-507,140	-542,213	-577,217	-440,963	-475,289	-511,033	-545,300	-580,781	-615,608	-651,201
Net		£/ha	-612,322	-670,150	-728,392	-786,796	-845,297	-903,756	-962,099	-734,731	-791,926	-851,482	-908,578	-967,696	-1,025,725	-1,085,029
		£ site	-28,184,302	-30,846,050	-33,526,828	-36,215,111	-38,907,819	-41,598,592	-44,284,054	-20,866,353	-22,490,689	-24,182,082	-25,803,612	-27,482,563	-29,130,592	-30,814,814
Additional Profit		£ site	-9,126,992	-9,126,992	-9,126,992	-9,126,992	-9,126,992	-9,126,992	-9,126,992	-8,053,228	-8,053,228	-8,053,228	-8,053,228	-8,053,228	-8,053,228	-8,053,228
		£/m2	-58	-61	-64	-68	-72	-77	-82	-82	-87	-92	-97	-103	-110	-118

Base
Site 1

SITE NAME	Site 1	Site 1

INCOME	Av Size m2		%	Number 1,611		Price £/m2	GDV £	GIA m2
Market Housing	98.4		100%	1,611		2,300	364,494,800	158,476
Shared Ownership	98.4		0%	0		1,840	0	0
Affordable Rent	98.4		0%	0		1,673	0	0
Social Rent	98.4		0%	0		1,384	0	0
Grant and Subsidy	Shared Ownership					0	0	
	Affordable Rent					0	0	
	Social Rent					0	0	
SITE AREA - Net	46.03	ha		35	/ha		**364,494,800**	**158,476**
SITE AREA - Gross	76.72	ha		21	/ha			

Sales per Quarter	0
Unit Build Time	3 Quarters

	Whole Site	Per ha NET	Per ha GROSS
Residual Land Value	**-28,184,302**	**-612,322**	**-367,366**
Alternative Use Value	1,918,000		25,000
Uplift 0%	0		0
Plus /ha 250,000	19,180,000		250,000
Viability Threshold	**21,098,000**		**275,000**
	£/m2		
Additional Profit	**-9,126,992**	**-58**	

RUN Residual MACRO ctrl+r
Closing balance = 0

RUN CIL MACRO ctrl+i
Closing balance = -90,537,053

Check on phasing dwgs nos
correct

DEVELOPMENT COSTS		/unit or m2	Total	
LAND				
	Land	-17,495		-28,184,302
	Stamp Duty		0	
	Easements etc.		0	
	Legals Acquisition	1.50%	-422,765	-422,765
PLANNING				
	Planning Fee		238,518	
	Architects	4.00%	11,715,535	
	QS / PM	0.50%	1,464,442	
	Planning Consultants	1.00%	2,928,884	
	Other Professional	2.50%	7,322,209	23,669,588
CONSTRUCTION				
	Build Cost - BCIS Based	1,503	238,229,991	
	s106 / CIL		36,891,900	
	Contingency	2.50%	5,955,750	
	Abnormals		11,810,730	292,888,371
FINANCE				
	Fees		0	
	Interest	6.50%		
	Legal and Valuation		0	0
SALES				
	Agents	3.0%	10,934,844	
	Legals	0.5%	1,822,474	
	Misc.		0	12,757,318 **300,708,210**

Developers Profit			
	Market Housing	17.50%	**63,786,590**
	Affordable Housing	17.50%	**0**

39594.4072

Planning fee calc			
Planning app fe	dwgs	rate	
No dwgs	1611		
No dwgs under	50	462	23,100
No dwgs over 5(	1561	138	215,418
		Total	238,518

Stamp duty calc - Residual	
Land payment	-28,184,302
Total	0

Stamp duty calc - Add Profit		
Land payment		21,098,000
125,000	0%	0%
250,000	1%	0%
500,000	3%	0%
1,000,000	4%	0%
above	5%	0%
Total		0

Pre CIL s106	22,900	£/ Unit (all)	
		Total	**36,891,900**

Post CIL s106	22,900	£/ Unit (all)	36,891,900
CIL	0	£/m2	0
		Total	**36,891,900**

Build Cost	/m2	
BCIS	1,265	
Energy	32	2.50%
Energy	0	
Design	0	
Acc & Adpt	8	
Water	0	
Small Sites	0	0%
Site Costs	198	16%
	1,503	

LIT	% GDV	
	0.00%	**0**

RESIDUAL CASH FLOW FOR INTEREST

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME																								
UNITS Started	20	40	40	80	80	80	120	120	120	120	120	120	120	120	120	120	71							
Market Housing		4,525,075	9,050,150	9,050,150	18,100,300	18,100,300	18,100,300	27,150,451	27,150,451	27,150,451	27,150,451	27,150,451	27,150,451	27,150,451	27,150,451	27,150,451	27,150,451	16,064,017	0	0	0	0	0	0
Shared Ownership		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Affordable Rent		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Social Rent		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grant and Subsidy		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INCOME	**0**	**4,525,075**	**9,050,150**	**9,050,150**	**18,100,300**	**18,100,300**	**18,100,300**	**27,150,451**	**27,150,451**	**27,150,451**	**27,150,451**	**27,150,451**	**27,150,451**	**27,150,451**	**27,150,451**	**27,150,451**	**27,150,451**	**16,064,017**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Stamp Duty	0																							
Easements etc.	0																							
Legals Acquisition	-422,765																							
Planning Fee	238,518																							
Architects	11,715,535		0																					
QS	1,464,442		0																					
Planning Consultants	2,928,884		0																					
Other Professional	7,322,209		0																					
Build Cost - BCIS Base		2,957,542	5,915,084	5,915,084	11,830,167	11,830,167	11,830,167	17,745,251	17,745,251	17,745,251	17,745,251	17,745,251	17,745,251	17,745,251	17,745,251	17,745,251	17,745,251	10,499,273	0	0	0	0	0	0
s106/CIL		458,000	916,000	916,000	1,832,000	1,832,000	1,832,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	1,625,900	0	0	0	0	0	0
Contingency		73,939	147,877	147,877	295,754	295,754	295,754	443,631	443,631	443,631	443,631	443,631	443,631	443,631	443,631	443,631	443,631	262,482	0	0	0	0	0	0
Abnormals		146,626	293,252	293,252	586,504	586,504	586,504	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	520,523	0	0	0	0	0	0
Finance Fees	0																							
Legal and Valuation	0																							
Agents	0	135,752	271,505	271,505	543,009	543,009	543,009	814,514	814,514	814,514	814,514	814,514	814,514	814,514	814,514	814,514	814,514	481,920	0	0	0	0	0	0
Legals	0	22,625	45,251	45,251	90,502	90,502	90,502	135,752	135,752	135,752	135,752	135,752	135,752	135,752	135,752	135,752	135,752	80,320	0	0	0	0	0	0
Misc.			0																					
COSTS BEFORE LAND INT AND PROFIT	**23,246,823**	**3,794,484**	**7,588,968**	**7,588,968**	**15,177,936**	**15,177,936**	**15,177,936**	**22,766,904**	**22,766,904**	**22,766,904**	**22,766,904**	**22,766,904**	**22,766,904**	**22,766,904**	**22,766,904**	**22,766,904**	**22,766,904**	**13,470,418**	**0**	**0**	**0**	**0**	**0**	**0**
For Residual Valuation Land	**-28,184,302**																							
Interest		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Profit on Costs																								63,786,590
Profit on GDV																								0
Cash Flow	4,937,479	730,591	1,461,182	1,461,182	2,922,364	2,922,364	2,922,364	4,383,546	4,383,546	4,383,546	4,383,546	4,383,546	4,383,546	4,383,546	4,383,546	4,383,546	4,383,546	2,593,598	0	0	0	0	0	-63,786,590
Opening Balanc	0																							
Closing Balanc	4,937,479	5,668,070	7,129,252	8,590,434	11,512,798	14,435,163	17,357,527	21,741,074	26,124,620	30,508,166	34,891,713	39,275,259	43,658,806	48,042,352	52,425,899	56,809,445	61,192,992	63,786,590	63,786,590	63,786,590	63,786,590	63,786,590	63,786,590	0

CASH FLOW FOR CIL ADDITIONAL PROFIT

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME As Above																								
INCOME	**0**	**4,525,075**	**9,050,150**	**9,050,150**	**18,100,300**	**18,100,300**	**18,100,300**	**27,150,451**	**27,150,451**	**27,150,451**	**27,150,451**	**27,150,451**	**27,150,451**	**27,150,451**	**27,150,451**	**27,150,451**	**27,150,451**	**16,064,017**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Land	21,098,000																							
Stamp Duty	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Easements etc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legals Acquisition	316,470	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Fee	238,518	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Architects	11,715,535	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QS	1,464,442	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Consultants	2,928,884	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Professional	7,322,209	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Build Cost - BCIS Base	0	2,957,542	5,915,084	5,915,084	11,830,167	11,830,167	11,830,167	17,745,251	17,745,251	17,745,251	17,745,251	17,745,251	17,745,251	17,745,251	17,745,251	17,745,251	17,745,251	10,499,273	0	0	0	0	0	0
POTENTIAL CIL	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882							
Post CIL s106		458,000	916,000	916,000	1,832,000	1,832,000	1,832,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	1,625,900	0	0	0	0	0	0
Contingency	0	73,939	147,877	147,877	295,754	295,754	295,754	443,631	443,631	443,631	443,631	443,631	443,631	443,631	443,631	443,631	443,631	262,482	0	0	0	0	0	0
Abnormals	0	146,626	293,252	293,252	586,504	586,504	586,504	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	520,523	0	0	0	0	0	0
Finance Fees	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legal and Valuation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Agents	0	135,752	271,505	271,505	543,009	543,009	543,009	814,514	814,514	814,514	814,514	814,514	814,514	814,514	814,514	814,514	814,514	481,920	0	0	0	0	0	0
Legals	0	22,625	45,251	45,251	90,502	90,502	90,502	135,752	135,752	135,752	135,752	135,752	135,752	135,752	135,752	135,752	135,752	80,320	0	0	0	0	0	0
Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COSTS BEFORE LAND INT AND PROFIT	**44,547,176**	**3,257,602**	**7,052,086**	**7,052,086**	**14,641,054**	**14,641,054**	**14,641,054**	**22,230,022**	**22,230,022**	**22,230,022**	**22,230,022**	**22,230,022**	**22,230,022**	**22,230,022**	**22,230,022**	**22,230,022**	**22,230,022**	**13,470,418**	**0**	**0**	**0**	**0**	**0**	**0**
For CIL calculation																								
Interest		2,895,566	3,001,393	3,066,609	3,136,064	3,115,057	3,092,685	3,068,859	2,948,507	2,820,332	2,683,826	2,538,446	2,383,617	2,218,725	2,043,114	1,856,089	1,656,907	1,444,778	1,370,104	1,459,161	1,554,007	1,655,017	1,762,593	1,877,162
Profit on cost																								59,780,482
Profit on GDV																								0
Cash Flow	-44,547,176	-1,628,093	-1,003,328	-1,068,545	323,182	344,189	366,561	1,851,570	1,971,922	2,100,097	2,236,603	2,381,982	2,536,811	2,701,704	2,877,314	3,064,340	3,263,522	1,148,821	-1,370,104	-1,459,161	-1,554,007	-1,655,017	-1,762,593	-61,657,644
Opening Balanc	0																							
Closing Balanc	-44,547,176	-46,175,269	-47,178,598	-48,247,143	-47,923,961	-47,579,772	-47,213,211	-45,361,641	-43,389,720	-41,289,623	-39,053,020	-36,671,038	-34,134,228	-31,432,524	-28,555,210	-25,490,870	-22,227,348	-21,078,528	-22,448,632	-23,907,793	-25,461,799	-27,116,816	-28,879,409	-90,537,053

Base
Site 2

SITE NAME	Site 2	Site 1

INCOME	Av Size m2		%	Number		Price £/m2	GDV £	GIA m2
				1,611				
Market Housing	98.4		95%	1,530		2,300	346,396,751	150,607
Shared Ownership	68.7		3%	54		1,840	6,823,644	3,709
Affordable Rent	68.7		2%	27		1,673	3,055,861	1,827
Social Rent	68.7		0%	0		1,384	0	0
Grant and Subsidy	Shared Ownership					0	0	
	Affordable Rent					0	0	
	Social Rent					0	0	
SITE AREA - Net	46.03	ha		35	/ha		**356,276,256**	**156,142**
SITE AREA - Gross	76.72	ha		21	/ha			

Sales per Quarter	0	
Unit Build Time	3	Quarters

	Whole Site	Per ha NET	Per ha GROSS
Residual Land Value	**-30,846,050**	**-670,150**	**-402,060**
Alternative Use Value	1,918,000		25,000
Uplift 0%	0		0
Plus /ha 250,000	19,180,000		250,000
Viability Threshold	**21,098,000**		**275,000**
	£/m2		
Additional Profit	**-9,126,992**		**-61**

RUN Residual MACRO ctrl+r
Closing balance = 0

RUN CIL MACRO ctrl+i
Closing balance = -100,613,237

Check on phasing dwgs nos
correct

DEVELOPMENT COSTS		/unit or m2	Total	
LAND				
	Land	-19,147		-30,846,050
	Stamp Duty		0	
	Easements etc.		0	
	Legals Acquisition	1.50%	-462,691	-462,691
PLANNING				
	Planning Fee		238,518	
	Architects	4.00%	11,575,128	
	QS / PM	0.50%	1,446,891	
	Planning Consultants	1.00%	2,893,782	
	Other Professional	2.50%	7,234,455	23,388,775
CONSTRUCTION				
	Build Cost - BCIS Based	1,504	234,805,442	
	s106 / CIL		36,891,900	
	Contingency	2.50%	5,870,136	
	Abnormals		11,810,730	289,378,208
FINANCE				
	Fees		0	
	Interest	6.50%		
	Legal and Valuation		0	0
SALES				
	Agents	3.0%	10,688,288	
	Legals	0.5%	1,781,381	
	Misc.		0	12,469,669 **293,927,912**

Developers Profit				
	Market Housing	17.50%		**60,619,432**
	Affordable Housing	17.50%		**1,728,913**

38701.64176

Planning fee calc			
Planning app fe	dwgs	rate	
No dwgs	1611		
No dwgs under	50	462	23,100
No dwgs over 5(	1561	138	215,418
		Total	238,518

Stamp duty calc - Residual		
Land payment		-30,846,050
	Total	0

Stamp duty calc - Add Profit			
Land payment			21,098,000
125,000	0%	0%	
250,000	1%	0%	
500,000	3%	0%	
1,000,000	4%	0%	
above	5%	0%	
		Total	0

Pre CIL s106	22,900	£/ Unit (all)		
		Total		**36,891,900**
Post CIL s106	22,900	£/ Unit (all)	36,891,900	
CIL	0	£/m2	0	
		Total		**36,891,900**

Build Cost	/m2	
BCIS	1,266	
Energy	32	2.50%
Energy	0	
Design	0	
Acc & Adpt	8	
Water	0	
Small Sites	0	0%
Site Costs	198	16%
	1,504	

LIT	% GDV
	0.00% **0**

RESIDUAL CASH FLOW FOR INTEREST

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME																								
UNITS Started	20	40	40	80	80	80	120	120	120	120	120	120	120	120	120	120	71							
Market Housing		4,300,394	8,600,788	8,600,788	17,201,577	17,201,577	17,201,577	25,802,365	25,802,365	25,802,365	25,802,365	25,802,365	25,802,365	25,802,365	25,802,365	25,802,365	25,802,365	15,266,399	0	0	0	0	0	0
Shared Ownership		84,713	169,426	169,426	338,853	338,853	338,853	508,279	508,279	508,279	508,279	508,279	508,279	508,279	508,279	508,279	508,279	300,732	0	0	0	0	0	0
Affordable Rent		37,937	75,875	75,875	151,750	151,750	151,750	227,625	227,625	227,625	227,625	227,625	227,625	227,625	227,625	227,625	227,625	134,678	0	0	0	0	0	0
Social Rent		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grant and Subsidy		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INCOME	**0**	**4,423,045**	**8,846,090**	**8,846,090**	**17,692,179**	**17,692,179**	**17,692,179**	**26,538,269**	**26,538,269**	**26,538,269**	**26,538,269**	**26,538,269**	**26,538,269**	**26,538,269**	**26,538,269**	**26,538,269**	**26,538,269**	**15,701,809**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Stamp Duty	0																							
Easements etc.	0																							
Legals Acquisition	-462,691																							
Planning Fee	238,518																							
Architects	11,575,128		0																					
QS	1,446,891		0																					
Planning Consultants	2,893,782		0																					
Other Professional	7,234,455		0																					
Build Cost - BCIS Base		2,915,027	5,830,054	5,830,054	11,660,109	11,660,109	11,660,109	17,490,163	17,490,163	17,490,163	17,490,163	17,490,163	17,490,163	17,490,163	17,490,163	17,490,163	17,490,163	10,348,347	0	0	0	0	0	0
s106/CIL		458,000	916,000	916,000	1,832,000	1,832,000	1,832,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	1,625,900	0	0	0	0	0	0
Contingency		72,876	145,751	145,751	291,503	291,503	291,503	437,254	437,254	437,254	437,254	437,254	437,254	437,254	437,254	437,254	437,254	258,709	0	0	0	0	0	0
Abnormals		146,626	293,252	293,252	586,504	586,504	586,504	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	520,523	0	0	0	0	0	0
Finance Fees	0																							
Legal and Valuation	0																							
Agents	0	132,691	265,383	265,383	530,765	530,765	530,765	796,148	796,148	796,148	796,148	796,148	796,148	796,148	796,148	796,148	796,148	471,054	0	0	0	0	0	0
Legals	0	22,115	44,230	44,230	88,461	88,461	88,461	132,691	132,691	132,691	132,691	132,691	132,691	132,691	132,691	132,691	132,691	78,509	0	0	0	0	0	0
Misc.			0																					
COSTS BEFORE LAND INT AND PROFIT	**22,926,084**	**3,747,336**	**7,494,671**	**7,494,671**	**14,989,342**	**14,989,342**	**14,989,342**	**22,484,013**	**22,484,013**	**22,484,013**	**22,484,013**	**22,484,013**	**22,484,013**	**22,484,013**	**22,484,013**	**22,484,013**	**22,484,013**	**13,303,041**	**0**	**0**	**0**	**0**	**0**	**0**
For Residual Valuation Land	-30,846,050																							
Interest		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Profit on Costs																								60,619,432
Profit on GDV																								1,728,913
Cash Flow	7,919,966	675,709	1,351,418	1,351,418	2,702,837	2,702,837	2,702,837	4,054,255	4,054,255	4,054,255	4,054,255	4,054,255	4,054,255	4,054,255	4,054,255	4,054,255	4,054,255	2,398,768	0	0	0	0	0	-62,348,345
Opening Balanc	0																							
Closing Balanc	7,919,966	8,595,675	9,947,093	11,298,512	14,001,349	16,704,186	19,407,023	23,461,278	27,515,534	31,569,789	35,624,044	39,678,300	43,732,555	47,786,811	51,841,066	55,895,322	59,949,577	62,348,345	62,348,345	62,348,345	62,348,345	62,348,345	62,348,345	0

CASH FLOW FOR CIL ADDITIONAL PROFIT

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME As Above																								
INCOME	**0**	**4,423,045**	**8,846,090**	**8,846,090**	**17,692,179**	**17,692,179**	**17,692,179**	**26,538,269**	**26,538,269**	**26,538,269**	**26,538,269**	**26,538,269**	**26,538,269**	**26,538,269**	**26,538,269**	**26,538,269**	**26,538,269**	**15,701,809**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Land	21,098,000																							
Stamp Duty	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Easements etc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legals Acquisition	316,470	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Fee	238,518	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Architects	11,575,128	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QS	1,446,891	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Consultants	2,893,782	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Professional	7,234,455	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Build Cost - BCIS Base	0	2,915,027	5,830,054	5,830,054	11,660,109	11,660,109	11,660,109	17,490,163	17,490,163	17,490,163	17,490,163	17,490,163	17,490,163	17,490,163	17,490,163	17,490,163	17,490,163	10,348,347	0	0	0	0	0	0
POTENTIAL CIL	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882							
Post CIL s106		458,000	916,000	916,000	1,832,000	1,832,000	1,832,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	1,625,900	0	0	0	0	0	0
Contingency	0	72,876	145,751	145,751	291,503	291,503	291,503	437,254	437,254	437,254	437,254	437,254	437,254	437,254	437,254	437,254	437,254	258,709	0	0	0	0	0	0
Abnormals	0	146,626	293,252	293,252	586,504	586,504	586,504	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	520,523	0	0	0	0	0	0
Finance Fees	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legal and Valuation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Agents	0	132,691	265,383	265,383	530,765	530,765	530,765	796,148	796,148	796,148	796,148	796,148	796,148	796,148	796,148	796,148	796,148	471,054	0	0	0	0	0	0
Legals	0	22,115	44,230	44,230	88,461	88,461	88,461	132,691	132,691	132,691	132,691	132,691	132,691	132,691	132,691	132,691	132,691	78,509	0	0	0	0	0	0
Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COSTS BEFORE LAND INT AND PROFIT	**44,266,363**	**3,210,454**	**6,957,789**	**6,957,789**	**14,452,460**	**14,452,460**	**14,452,460**	**21,947,131**	**21,947,131**	**21,947,131**	**21,947,131**	**21,947,131**	**21,947,131**	**21,947,131**	**21,947,131**	**21,947,131**	**21,947,131**	**13,303,041**	**0**	**0**	**0**	**0**	**0**	**0**
For CIL calculation																								
Interest		2,877,314	2,985,521	3,056,840	3,132,795	3,125,845	3,118,443	3,110,560	3,014,323	2,911,830	2,802,675	2,686,425	2,562,618	2,430,765	2,290,340	2,140,789	1,981,516	1,811,890	1,773,743	1,889,037	2,011,824	2,142,593	2,281,861	2,430,182
Profit on cost																								59,066,723
Profit on GDV																								1,728,913
Cash Flow	-44,266,363	-1,664,722	-1,097,220	-1,168,540	106,924	113,874	121,276	1,480,577	1,576,815	1,679,308	1,788,463	1,904,713	2,028,519	2,160,373	2,300,797	2,450,349	2,609,621	586,877	-1,773,743	-1,889,037	-2,011,824	-2,142,593	-2,281,861	-63,225,818
Opening Balanc	0																							
Closing Balanc	-44,266,363	-45,931,085	-47,028,305	-48,196,845	-48,089,921	-47,976,047	-47,854,771	-46,374,194	-44,797,380	-43,118,072	-41,329,609	-39,424,897	-37,396,378	-35,236,005	-32,935,208	-30,484,859	-27,875,237	-27,288,360	-29,062,104	-30,951,140	-32,962,964	-35,105,557	-37,387,418	-100,613,237

Base
Site 3

SITE NAME	Site 3	Site 1

INCOME	Av Size m2		%	Number		Price £/m2	GDV £	GIA m2
				1,611				
Market Housing	98.4		90%	1,450		2,300	328,058,574	142,634
Shared Ownership	68.7		7%	108		1,840	13,645,704	7,416
Affordable Rent	68.7		3%	53		1,673	6,111,013	3,653
Social Rent	68.7		0%	0		1,384	0	0
Grant and Subsidy	Shared Ownership					0	0	
	Affordable Rent					0	0	
	Social Rent					0	0	
SITE AREA - Net	46.03	ha		35	/ha		**347,815,291**	**153,703**
SITE AREA - Gross	76.72	ha		21	/ha			

Sales per Quarter	0	
Unit Build Time	3	Quarters

	Whole Site	Per ha NET	Per ha GROSS
Residual Land Value	**-33,526,828**	**-728,392**	**-437,002**
Alternative Use Value	1,918,000		25,000
Uplift 0%	0		0
Plus /ha 250,000	19,180,000		250,000
Viability Threshold	**21,098,000**		**275,000**
	£/m2		
Additional Profit	**-9,126,992**	**-64**	

RUN Residual MACRO ctrl+r
Closing balance = 0

RUN CIL MACRO ctrl+i
Closing balance = -110,775,939

Check on phasing dwgs nos
correct

DEVELOPMENT COSTS		/unit or m2	Total		
LAND				-33,526,828	
	Land	-20,811			
	Stamp Duty		0		
	Easements etc.		0		
	Legals Acquisition	1.50%	-502,902	-502,902	
PLANNING					
	Planning Fee		238,518		
	Architects	4.00%	11,428,344		
	QS / PM	0.50%	1,428,543		
	Planning Consultants	1.00%	2,857,086		
	Other Professional	2.50%	7,142,715	23,095,206	
CONSTRUCTION					
	Build Cost - BCIS Based	1,504	231,225,340		
	s106 / CIL		36,891,900		
	Contingency	2.50%	5,780,633		
	Abnormals		11,810,730	285,708,603	
FINANCE					
	Fees		0		
	Interest	6.50%			
	Legal and Valuation		0	0	
SALES					
	Agents	3.0%	10,434,459		
	Legals	0.5%	1,739,076		
	Misc.		0	12,173,535	**286,947,615**

Developers Profit			
Market Housing	17.50%		**57,410,250**
Affordable Housing	17.50%		**3,457,425**

37782.54242

Planning fee calc			
Planning app fe	dwgs	rate	
No dwgs	1611		
No dwgs under	50	462	23,100
No dwgs over 5(	1561	138	215,418
		Total	238,518

Stamp duty calc - Residual		
Land payment		-33,526,828
	Total	0

Stamp duty calc - Add Profit			
Land payment			21,098,000
125,000	0%	0%	
250,000	1%	0%	
500,000	3%	0%	
1,000,000	4%	0%	
above	5%	0%	
		Total	0

Pre CIL s106	22,900	£/ Unit (all)	
		Total	**36,891,900**

Post CIL s106	22,900	£/ Unit (all)	36,891,900
CIL	0	£/m2	0
		Total	**36,891,900**

Build Cost	/m2	
BCIS	1,266	
Energy	32	2.50%
Energy	0	
Design	0	
Acc & Adpt	8	
Water	0	
Small Sites	0	0%
Site Costs	198	16%
	1,504	

LIT	% GDV	
	0.00%	**0**

RESIDUAL CASH FLOW FOR INTEREST

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME																								
UNITS Started	20	40	40	80	80	80	120	120	120	120	120	120	120	120	120	120	71							
Market Housing		4,072,732	8,145,464	8,145,464	16,290,929	16,290,929	16,290,929	24,436,393	24,436,393	24,436,393	24,436,393	24,436,393	24,436,393	24,436,393	24,436,393	24,436,393	24,436,393	14,458,199	0	0	0	0	0	0
Shared Ownership		169,407	338,813	338,813	677,627	677,627	677,627	1,016,440	1,016,440	1,016,440	1,016,440	1,016,440	1,016,440	1,016,440	1,016,440	1,016,440	1,016,440	601,394	0	0	0	0	0	0
Affordable Rent		75,866	151,732	151,732	303,464	303,464	303,464	455,196	455,196	455,196	455,196	455,196	455,196	455,196	455,196	455,196	455,196	269,325	0	0	0	0	0	0
Social Rent		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grant and Subsidy		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INCOME	**0**	**4,318,005**	**8,636,010**	**8,636,010**	**17,272,019**	**17,272,019**	**17,272,019**	**25,908,029**	**25,908,029**	**25,908,029**	**25,908,029**	**25,908,029**	**25,908,029**	**25,908,029**	**25,908,029**	**25,908,029**	**25,908,029**	**15,328,917**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Stamp Duty	0																							
Easements etc.	0																							
Legals Acquisition	-502,902																							
Planning Fee	238,518																							
Architects	11,428,344		0																					
QS	1,428,543		0																					
Planning Consultants	2,857,086		0																					
Other Professional	7,142,715		0																					
Build Cost - BCIS Base		2,870,582	5,741,163	5,741,163	11,482,326	11,482,326	11,482,326	17,223,489	17,223,489	17,223,489	17,223,489	17,223,489	17,223,489	17,223,489	17,223,489	17,223,489	17,223,489	10,190,564	0	0	0	0	0	0
s106/CIL		458,000	916,000	916,000	1,832,000	1,832,000	1,832,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	1,625,900	0	0	0	0	0	0
Contingency		71,765	143,529	143,529	287,058	287,058	287,058	430,587	430,587	430,587	430,587	430,587	430,587	430,587	430,587	430,587	430,587	254,764	0	0	0	0	0	0
Abnormals		146,626	293,252	293,252	586,504	586,504	586,504	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	520,523	0	0	0	0	0	0
Finance Fees	0																							
Legal and Valuation	0																							
Agents	0	129,540	259,080	259,080	518,161	518,161	518,161	777,241	777,241	777,241	777,241	777,241	777,241	777,241	777,241	777,241	777,241	459,868	0	0	0	0	0	0
Legals	0	21,590	43,180	43,180	86,360	86,360	86,360	129,540	129,540	129,540	129,540	129,540	129,540	129,540	129,540	129,540	129,540	76,645	0	0	0	0	0	0
Misc.			0																					
COSTS BEFORE LAND INT AND PROFIT	**22,592,304**	**3,698,102**	**7,396,205**	**7,396,205**	**14,792,409**	**14,792,409**	**14,792,409**	**22,188,614**	**22,188,614**	**22,188,614**	**22,188,614**	**22,188,614**	**22,188,614**	**22,188,614**	**22,188,614**	**22,188,614**	**22,188,614**	**13,128,263**	**0**	**0**	**0**	**0**	**0**	**0**
For Residual Valuation Land	-33,526,828																							
Interest		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Profit on Costs																								57,410,250
Profit on GDV																								3,457,425
Cash Flow	10,934,524	619,903	1,239,805	1,239,805	2,479,610	2,479,610	2,479,610	3,719,415	3,719,415	3,719,415	3,719,415	3,719,415	3,719,415	3,719,415	3,719,415	3,719,415	3,719,415	2,200,654	0	0	0	0	0	-60,867,676
Opening Balanc	0																							
Closing Balanc	10,934,524	11,554,426	12,794,232	14,034,037	16,513,647	18,993,257	21,472,868	25,192,283	28,911,698	32,631,114	36,350,529	40,069,945	43,789,360	47,508,775	51,228,191	54,947,606	58,667,022	60,867,676	60,867,676	60,867,676	60,867,676	60,867,676	60,867,676	0

CASH FLOW FOR CIL ADDITIONAL PROFIT

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME As Above																								
INCOME	**0**	**4,318,005**	**8,636,010**	**8,636,010**	**17,272,019**	**17,272,019**	**17,272,019**	**25,908,029**	**25,908,029**	**25,908,029**	**25,908,029**	**25,908,029**	**25,908,029**	**25,908,029**	**25,908,029**	**25,908,029**	**25,908,029**	**15,328,917**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Land	21,098,000																							
Stamp Duty	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Easements etc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legals Acquisition	316,470	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Fee	238,518	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Architects	11,428,344	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QS	1,428,543	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Consultants	2,857,086	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Professional	7,142,715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Build Cost - BCIS Base	0	2,870,582	5,741,163	5,741,163	11,482,326	11,482,326	11,482,326	17,223,489	17,223,489	17,223,489	17,223,489	17,223,489	17,223,489	17,223,489	17,223,489	17,223,489	17,223,489	10,190,564	0	0	0	0	0	0
POTENTIAL CIL	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882							
Post CIL s106		458,000	916,000	916,000	1,832,000	1,832,000	1,832,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	1,625,900	0	0	0	0	0	0
Contingency	0	71,765	143,529	143,529	287,058	287,058	287,058	430,587	430,587	430,587	430,587	430,587	430,587	430,587	430,587	430,587	430,587	254,764	0	0	0	0	0	0
Abnormals	0	146,626	293,252	293,252	586,504	586,504	586,504	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	520,523	0	0	0	0	0	0
Finance Fees	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legal and Valuation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Agents	0	129,540	259,080	259,080	518,161	518,161	518,161	777,241	777,241	777,241	777,241	777,241	777,241	777,241	777,241	777,241	777,241	459,868	0	0	0	0	0	0
Legals	0	21,590	43,180	43,180	86,360	86,360	86,360	129,540	129,540	129,540	129,540	129,540	129,540	129,540	129,540	129,540	129,540	76,645	0	0	0	0	0	0
Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COSTS BEFORE LAND INT AND PROFIT	**43,972,794**	**3,161,220**	**6,859,323**	**6,859,323**	**14,255,527**	**14,255,527**	**14,255,527**	**21,651,732**	**21,651,732**	**21,651,732**	**21,651,732**	**21,651,732**	**21,651,732**	**21,651,732**	**21,651,732**	**21,651,732**	**21,651,732**	**13,128,263**	**0**	**0**	**0**	**0**	**0**	**0**
For CIL calculation																								
Interest		2,858,232	2,968,826	3,046,315	3,128,841	3,136,143	3,143,920	3,152,203	3,080,437	3,004,006	2,922,607	2,835,918	2,743,593	2,645,267	2,540,550	2,429,027	2,310,254	2,183,761	2,182,663	2,324,536	2,475,631	2,636,547	2,807,923	2,990,438
Profit on cost																								58,321,344
Profit on GDV																								3,457,425
Cash Flow	-43,972,794	-1,701,447	-1,192,139	-1,269,628	-112,348	-119,651	-127,428	1,104,094	1,175,860	1,252,291	1,333,690	1,420,380	1,512,704	1,611,030	1,715,747	1,827,271	1,946,043	16,893	-2,182,663	-2,324,536	-2,475,631	-2,636,547	-2,807,923	-64,769,207
Opening Balanc	0																							
Closing Balanc	-43,972,794	-45,674,242	-46,866,380	-48,136,008	-48,248,356	-48,368,007	-48,495,436	-47,391,342	-46,215,482	-44,963,191	-43,629,501	-42,209,121	-40,696,417	-39,085,386	-37,369,639	-35,542,369	-33,596,325	-33,579,432	-35,762,095	-38,086,631	-40,562,263	-43,198,810	-46,006,732	-110,775,939

Base
Site 4

SITE NAME	Site 4	Site 1

INCOME	Av Size m2		%	Number		Price £/m2	GDV £	GIA m2
				1,611				
Market Housing	98.4		85%	1,369		2,300	309,817,888	134,703
Shared Ownership	68.7		10%	162		1,840	20,469,351	11,125
Affordable Rent	68.7		5%	80		1,673	9,166,875	5,479
Social Rent	68.7		0%	0		1,384	0	0
Grant and Subsidy	Shared Ownership					0	0	
	Affordable Rent					0	0	
	Social Rent					0	0	
SITE AREA - Net	46.03	ha		35	/ha		**339,454,115**	**151,307**
SITE AREA - Gross	76.72	ha		21	/ha			

Sales per Quarter	0
Unit Build Time	3 Quarters

		Whole Site	Per ha NET	Per ha GROSS
Residual Land Value		**-36,215,111**	**-786,796**	**-472,043**
Alternative Use Value		1,918,000		25,000
Uplift	0%	0		0
Plus /ha	250,000	19,180,000		250,000
Viability Threshold		**21,098,000**		**275,000**
		£/m2		
Additional Profit		**-9,126,992**		**-68**

RUN Residual MACRO ctrl+r
Closing balance = 0

RUN CIL MACRO ctrl+i
Closing balance = -120,944,343

Check on phasing dwgs nos
correct

DEVELOPMENT COSTS		/unit or m2	Total		
LAND				-36,215,111	
	Land	-22,480			
	Stamp Duty		0		
	Easements etc.		0		
	Legals Acquisition	1.50%	-543,227	-543,227	
PLANNING					
	Planning Fee		238,518		
	Architects	4.00%	11,284,762		
	QS / PM	0.50%	1,410,595		
	Planning Consultants	1.00%	2,821,190		
	Other Professional	2.50%	7,052,976	22,808,042	
CONSTRUCTION					
	Build Cost - BCIS Based	1,505	227,723,333		
	s106 / CIL		36,891,900		
	Contingency	2.50%	5,693,083		
	Abnormals		11,810,730	282,119,047	
FINANCE					
	Fees		0		
	Interest	6.50%			
	Legal and Valuation		0	0	
SALES					
	Agents	3.0%	10,183,623		
	Legals	0.5%	1,697,271		
	Misc.		0	11,880,894	**280,049,645**

Developers Profit			
Market Housing	17.50%		**54,218,130**
Affordable Housing	17.50%		**5,186,340**

36874.28309

Planning fee calc			
Planning app fe	dwgs	rate	
No dwgs	1611		
No dwgs under	50	462	23,100
No dwgs over 5(	1561	138	215,418
		Total	238,518

Stamp duty calc - Residual	
Land payment	-36,215,111
Total	0

Stamp duty calc - Add Profit			
Land payment			21,098,000
125,000	0%	0%	
250,000	1%	0%	
500,000	3%	0%	
1,000,000	4%	0%	
above	5%	0%	
		Total	0

Pre CIL s106	22,900	£/ Unit (all)		
		Total		**36,891,900**
Post CIL s106	22,900	£/ Unit (all)	36,891,900	
CIL	0	£/m2	0	
		Total		**36,891,900**

Build Cost	/m2	
BCIS	1,267	
Energy	32	2.50%
Energy	0	
Design	0	
Acc & Adpt	8	
Water	0	
Small Sites	0	0%
Site Costs	198	16%
	1,505	

LIT	% GDV	
	0.00%	**0**

RESIDUAL CASH FLOW FOR INTEREST

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME																								
UNITS Started	20	40	40	80	80	80	120	120	120	120	120	120	120	120	120	120	71							
Market Housing		3,846,280	7,692,561	7,692,561	15,385,122	15,385,122	15,385,122	23,077,683	23,077,683	23,077,683	23,077,683	23,077,683	23,077,683	23,077,683	23,077,683	23,077,683	23,077,683	13,654,296	0	0	0	0	0	0
Shared Ownership		254,120	508,240	508,240	1,016,479	1,016,479	1,016,479	1,524,719	1,524,719	1,524,719	1,524,719	1,524,719	1,524,719	1,524,719	1,524,719	1,524,719	1,524,719	902,125	0	0	0	0	0	0
Affordable Rent		113,804	227,607	227,607	455,214	455,214	455,214	682,821	682,821	682,821	682,821	682,821	682,821	682,821	682,821	682,821	682,821	404,003	0	0	0	0	0	0
Social Rent		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grant and Subsidy		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INCOME	**0**	**4,214,204**	**8,428,408**	**8,428,408**	**16,856,815**	**16,856,815**	**16,856,815**	**25,285,223**	**25,285,223**	**25,285,223**	**25,285,223**	**25,285,223**	**25,285,223**	**25,285,223**	**25,285,223**	**25,285,223**	**25,285,223**	**14,960,423**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Stamp Duty	0																							
Easements etc.	0																							
Legals Acquisition	-543,227																							
Planning Fee	238,518																							
Architects	11,284,762		0																					
QS	1,410,595		0																					
Planning Consultants	2,821,190		0																					
Other Professional	7,052,976		0																					
Build Cost - BCIS Base		2,827,105	5,654,211	5,654,211	11,308,421	11,308,421	11,308,421	16,962,632	16,962,632	16,962,632	16,962,632	16,962,632	16,962,632	16,962,632	16,962,632	16,962,632	16,962,632	10,036,224	0	0	0	0	0	0
s106/CIL		458,000	916,000	916,000	1,832,000	1,832,000	1,832,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	1,625,900	0	0	0	0	0	0
Contingency		70,678	141,355	141,355	282,711	282,711	282,711	424,066	424,066	424,066	424,066	424,066	424,066	424,066	424,066	424,066	424,066	250,906	0	0	0	0	0	0
Abnormals		146,626	293,252	293,252	586,504	586,504	586,504	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	520,523	0	0	0	0	0	0
Finance Fees	0																							
Legal and Valuation	0																							
Agents	0	126,426	252,852	252,852	505,704	505,704	505,704	758,557	758,557	758,557	758,557	758,557	758,557	758,557	758,557	758,557	758,557	448,813	0	0	0	0	0	0
Legals	0	21,071	42,142	42,142	84,284	84,284	84,284	126,426	126,426	126,426	126,426	126,426	126,426	126,426	126,426	126,426	126,426	74,802	0	0	0	0	0	0
Misc.			0																					
COSTS BEFORE LAND INT AND PROFIT	**22,264,815**	**3,649,906**	**7,299,812**	**7,299,812**	**14,599,625**	**14,599,625**	**14,599,625**	**21,899,437**	**21,899,437**	**21,899,437**	**21,899,437**	**21,899,437**	**21,899,437**	**21,899,437**	**21,899,437**	**21,899,437**	**21,899,437**	**12,957,167**	**0**	**0**	**0**	**0**	**0**	**0**
For Residual Valuation Land	**-36,215,111**																							
Interest		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Profit on Costs																								54,218,130
Profit on GDV																								5,186,340
Cash Flow	13,950,296	564,298	1,128,595	1,128,595	2,257,191	2,257,191	2,257,191	3,385,786	3,385,786	3,385,786	3,385,786	3,385,786	3,385,786	3,385,786	3,385,786	3,385,786	3,385,786	2,003,257	0	0	0	0	0	-59,404,470
Opening Balanc	0																							
Closing Balanc	13,950,296	14,514,594	15,643,189	16,771,784	19,028,975	21,286,165	23,543,356	26,929,142	30,314,927	33,700,713	37,086,499	40,472,285	43,858,070	47,243,856	50,629,642	54,015,428	57,401,213	59,404,470	59,404,470	59,404,470	59,404,470	59,404,470	59,404,470	0

CASH FLOW FOR CIL ADDITIONAL PROFIT

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME As Above																								
INCOME	**0**	**4,214,204**	**8,428,408**	**8,428,408**	**16,856,815**	**16,856,815**	**16,856,815**	**25,285,223**	**25,285,223**	**25,285,223**	**25,285,223**	**25,285,223**	**25,285,223**	**25,285,223**	**25,285,223**	**25,285,223**	**25,285,223**	**14,960,423**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Land	21,098,000																							
Stamp Duty	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Easements etc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legals Acquisition	316,470	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Fee	238,518	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Architects	11,284,762	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QS	1,410,595	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Consultants	2,821,190	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Professional	7,052,976	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Build Cost - BCIS Base	0	2,827,105	5,654,211	5,654,211	11,308,421	11,308,421	11,308,421	16,962,632	16,962,632	16,962,632	16,962,632	16,962,632	16,962,632	16,962,632	16,962,632	16,962,632	16,962,632	10,036,224	0	0	0	0	0	0
POTENTIAL CIL	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882							
Post CIL s106		458,000	916,000	916,000	1,832,000	1,832,000	1,832,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	1,625,900	0	0	0	0	0	0
Contingency	0	70,678	141,355	141,355	282,711	282,711	282,711	424,066	424,066	424,066	424,066	424,066	424,066	424,066	424,066	424,066	424,066	250,906	0	0	0	0	0	0
Abnormals	0	146,626	293,252	293,252	586,504	586,504	586,504	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	520,523	0	0	0	0	0	0
Finance Fees	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legal and Valuation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Agents	0	126,426	252,852	252,852	505,704	505,704	505,704	758,557	758,557	758,557	758,557	758,557	758,557	758,557	758,557	758,557	758,557	448,813	0	0	0	0	0	0
Legals	0	21,071	42,142	42,142	84,284	84,284	84,284	126,426	126,426	126,426	126,426	126,426	126,426	126,426	126,426	126,426	126,426	74,802	0	0	0	0	0	0
Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COSTS BEFORE LAND INT AND PROFIT	**43,685,630**	**3,113,024**	**6,762,930**	**6,762,930**	**14,062,743**	**14,062,743**	**14,062,743**	**21,362,555**	**21,362,555**	**21,362,555**	**21,362,555**	**21,362,555**	**21,362,555**	**21,362,555**	**21,362,555**	**21,362,555**	**21,362,555**	**12,957,167**	**0**	**0**	**0**	**0**	**0**	**0**
For CIL calculation																								
Interest		2,839,566	2,952,561	3,036,222	3,125,320	3,146,851	3,169,782	3,194,203	3,146,852	3,096,424	3,042,719	2,985,522	2,924,608	2,859,734	2,790,643	2,717,061	2,638,697	2,555,239	2,591,118	2,759,540	2,938,910	3,129,940	3,333,386	3,550,056
Profit on cost																								57,591,706
Profit on GDV																								5,186,340
Cash Flow	-43,685,630	-1,738,386	-1,287,084	-1,370,744	-331,248	-352,779	-375,709	728,465	775,815	826,243	879,949	937,146	998,060	1,062,934	1,132,025	1,205,606	1,283,971	-551,982	-2,591,118	-2,759,540	-2,938,910	-3,129,940	-3,333,386	-66,328,101
Opening Balanc	0																							
Closing Balanc	-43,685,630	-45,424,016	-46,711,100	-48,081,845	-48,413,092	-48,765,871	-49,141,580	-48,413,115	-47,637,300	-46,811,057	-45,931,108	-44,993,962	-43,995,902	-42,932,968	-41,800,943	-40,595,337	-39,311,366	-39,863,348	-42,454,466	-45,214,006	-48,152,917	-51,282,856	-54,616,242	-120,944,343

Base
Site 5

SITE NAME	Site 5	Site 1

INCOME	Av Size m2		%	Number		Price £/m2	GDV £	GIA m2
				1,611				
Market Housing	98.4		80%	1,289		2,300	291,597,049	126,781
Shared Ownership	68.6		13%	216		1,840	27,254,401	14,812
Affordable Rent	68.6		7%	106		1,673	12,205,453	7,296
Social Rent	68.6		0%	0		1,384	0	0
Grant and Subsidy	Shared Ownership					0	0	
	Affordable Rent					0	0	
	Social Rent					0	0	
SITE AREA - Net	46.03	ha		35	/ha		**331,056,903**	**148,889**
SITE AREA - Gross	76.72	ha		21	/ha			

Sales per Quarter	0	
Unit Build Time	3	Quarters

		Whole Site	Per ha NET	Per ha GROSS
Residual Land Value		**-38,907,819**	**-845,297**	**-507,140**
Alternative Use Value		1,918,000		25,000
Uplift	0%	0		0
Plus /ha	250,000	19,180,000		250,000
Viability Threshold		**21,098,000**		**275,000**

	£/m2	
Additional Profit	**-9,126,992**	**-72**

RUN Residual MACRO ctrl+r
Closing balance = 0

RUN CIL MACRO ctrl+i
Closing balance = -131,120,161

Check on phasing dwgs nos
correct

DEVELOPMENT COSTS		/unit or m2	Total		
LAND					
	Land	-24,151		-38,907,819	
	Stamp Duty		0		
	Easements etc.		0		
	Legals Acquisition	1.50%	-583,617	-583,617	
PLANNING					
	Planning Fee		238,518		
	Architects	4.00%	11,140,292		
	QS / PM	0.50%	1,392,536		
	Planning Consultants	1.00%	2,785,073		
	Other Professional	2.50%	6,962,682	22,519,101	
CONSTRUCTION					
	Build Cost - BCIS Based	1,506	224,199,667		
	s106 / CIL		36,891,900		
	Contingency	2.50%	5,604,992		
	Abnormals		11,810,730	278,507,288	
FINANCE					
	Fees		0		
	Interest	6.50%			
	Legal and Valuation		0	0	
SALES					
	Agents	3.0%	9,931,707		
	Legals	0.5%	1,655,285		
	Misc.		0	11,586,992	**273,121,945**

Developers Profit				
	Market Housing	17.50%		**51,029,484**
	Affordable Housing	17.50%		**6,905,474**

35962.10924

Planning fee calc			
Planning app fe	dwgs	rate	
No dwgs	1611		
No dwgs under	50	462	23,100
No dwgs over 5(	1561	138	215,418
		Total	238,518

Stamp duty calc - Residual		
Land payment		-38,907,819
	Total	0

Stamp duty calc - Add Profit			
Land payment			21,098,000
125,000	0%	0%	
250,000	1%	0%	
500,000	3%	0%	
1,000,000	4%	0%	
above	5%	0%	
		Total	0

Pre CIL s106	22,900	£/ Unit (all)	
		Total	**36,891,900**

Post CIL s106	22,900	£/ Unit (all)	36,891,900
CIL	0	£/m2	0
		Total	**36,891,900**

Build Cost	/m2	
BCIS	1,268	
Energy	32	2.50%
Energy	0	
Design	0	
Acc & Adpt	8	
Water	0	
Small Sites	0	0%
Site Costs	198	16%
	1,506	

LIT	% GDV	
	0.00%	**0**

RESIDUAL CASH FLOW FOR INTEREST

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME																								
UNITS Started	20	40	40	80	80	80	120	120	120	120	120	120	120	120	120	120	71							
Market Housing		3,620,075	7,240,150	7,240,150	14,480,300	14,480,300	14,480,300	21,720,451	21,720,451	21,720,451	21,720,451	21,720,451	21,720,451	21,720,451	21,720,451	21,720,451	21,720,451	12,851,267	0	0	0	0	0	0
Shared Ownership		338,354	676,708	676,708	1,353,415	1,353,415	1,353,415	2,030,123	2,030,123	2,030,123	2,030,123	2,030,123	2,030,123	2,030,123	2,030,123	2,030,123	2,030,123	1,201,156	0	0	0	0	0	0
Affordable Rent		151,526	303,053	303,053	606,106	606,106	606,106	909,158	909,158	909,158	909,158	909,158	909,158	909,158	909,158	909,158	909,158	537,919	0	0	0	0	0	0
Social Rent		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grant and Subsidy		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INCOME	**0**	**4,109,955**	**8,219,911**	**8,219,911**	**16,439,821**	**16,439,821**	**16,439,821**	**24,659,732**	**24,659,732**	**24,659,732**	**24,659,732**	**24,659,732**	**24,659,732**	**24,659,732**	**24,659,732**	**24,659,732**	**24,659,732**	**14,590,341**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Stamp Duty	0																							
Easements etc.	0																							
Legals Acquisition	-583,617																							
Planning Fee	238,518																							
Architects	11,140,292		0																					
QS	1,392,536		0																					
Planning Consultants	2,785,073		0																					
Other Professional	6,962,682		0																					
Build Cost - BCIS Base		2,783,360	5,566,720	5,566,720	11,133,441	11,133,441	11,133,441	16,700,161	16,700,161	16,700,161	16,700,161	16,700,161	16,700,161	16,700,161	16,700,161	16,700,161	16,700,161	9,880,929	0	0	0	0	0	0
s106/CIL		458,000	916,000	916,000	1,832,000	1,832,000	1,832,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	1,625,900	0	0	0	0	0	0
Contingency		69,584	139,168	139,168	278,336	278,336	278,336	417,504	417,504	417,504	417,504	417,504	417,504	417,504	417,504	417,504	417,504	247,023	0	0	0	0	0	0
Abnormals		146,626	293,252	293,252	586,504	586,504	586,504	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	520,523	0	0	0	0	0	0
Finance Fees	0																							
Legal and Valuation	0																							
Agents	0	123,299	246,597	246,597	493,195	493,195	493,195	739,792	739,792	739,792	739,792	739,792	739,792	739,792	739,792	739,792	739,792	437,710	0	0	0	0	0	0
Legals	0	20,550	41,100	41,100	82,199	82,199	82,199	123,299	123,299	123,299	123,299	123,299	123,299	123,299	123,299	123,299	123,299	72,952	0	0	0	0	0	0
Misc.			0																					
COSTS BEFORE LAND INT AND PROFIT	**21,935,484**	**3,601,419**	**7,202,837**	**7,202,837**	**14,405,675**	**14,405,675**	**14,405,675**	**21,608,512**	**21,608,512**	**21,608,512**	**21,608,512**	**21,608,512**	**21,608,512**	**21,608,512**	**21,608,512**	**21,608,512**	**21,608,512**	**12,785,037**	**0**	**0**	**0**	**0**	**0**	**0**
For Residual Valuation Land	-38,907,819																							
Interest		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Profit on Costs																								51,029,484
Profit on GDV																								6,905,474
Cash Flow	16,972,335	508,537	1,017,073	1,017,073	2,034,146	2,034,146	2,034,146	3,051,220	3,051,220	3,051,220	3,051,220	3,051,220	3,051,220	3,051,220	3,051,220	3,051,220	3,051,220	1,805,305	0	0	0	0	0	-57,934,958
Opening Balanc	0																							
Closing Balanc	16,972,335	17,480,872	18,497,945	19,515,018	21,549,164	23,583,311	25,617,457	28,668,677	31,719,896	34,771,116	37,822,336	40,873,555	43,924,775	46,975,994	50,027,214	53,078,433	56,129,653	57,934,958	57,934,958	57,934,958	57,934,958	57,934,958	57,934,958	0

CASH FLOW FOR CIL ADDITIONAL PROFIT

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME As Above																								
INCOME	**0**	**4,109,955**	**8,219,911**	**8,219,911**	**16,439,821**	**16,439,821**	**16,439,821**	**24,659,732**	**24,659,732**	**24,659,732**	**24,659,732**	**24,659,732**	**24,659,732**	**24,659,732**	**24,659,732**	**24,659,732**	**24,659,732**	**14,590,341**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Land	21,098,000																							
Stamp Duty	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Easements etc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legals Acquisition	316,470	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Fee	238,518	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Architects	11,140,292	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QS	1,392,536	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Consultants	2,785,073	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Professional	6,962,682	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Build Cost - BCIS Base	0	2,783,360	5,566,720	5,566,720	11,133,441	11,133,441	11,133,441	16,700,161	16,700,161	16,700,161	16,700,161	16,700,161	16,700,161	16,700,161	16,700,161	16,700,161	16,700,161	9,880,929	0	0	0	0	0	0
POTENTIAL CIL	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882							
Post CIL s106		458,000	916,000	916,000	1,832,000	1,832,000	1,832,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	1,625,900	0	0	0	0	0	0
Contingency	0	69,584	139,168	139,168	278,336	278,336	278,336	417,504	417,504	417,504	417,504	417,504	417,504	417,504	417,504	417,504	417,504	247,023	0	0	0	0	0	0
Abnormals	0	146,626	293,252	293,252	586,504	586,504	586,504	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	520,523	0	0	0	0	0	0
Finance Fees	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legal and Valuation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Agents	0	123,299	246,597	246,597	493,195	493,195	493,195	739,792	739,792	739,792	739,792	739,792	739,792	739,792	739,792	739,792	739,792	437,710	0	0	0	0	0	0
Legals	0	20,550	41,100	41,100	82,199	82,199	82,199	123,299	123,299	123,299	123,299	123,299	123,299	123,299	123,299	123,299	123,299	72,952	0	0	0	0	0	0
Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COSTS BEFORE LAND INT AND PROFIT	**43,396,689**	**3,064,537**	**6,665,956**	**6,665,956**	**13,868,793**	**13,868,793**	**13,868,793**	**21,071,631**	**21,071,631**	**21,071,631**	**21,071,631**	**21,071,631**	**21,071,631**	**21,071,631**	**21,071,631**	**21,071,631**	**21,071,631**	**12,785,037**	**0**	**0**	**0**	**0**	**0**	**0**
For CIL calculation																								
Interest		2,820,785	2,936,184	3,026,028	3,121,713	3,157,508	3,195,629	3,236,228	3,213,356	3,188,998	3,163,056	3,135,428	3,106,004	3,074,668	3,041,295	3,005,752	2,967,900	2,927,587	3,000,535	3,195,570	3,403,282	3,624,495	3,860,087	4,110,993
Profit on cost																								56,857,650
Profit on GDV																								6,905,474
Cash Flow	-43,396,689	-1,775,366	-1,382,229	-1,472,073	-550,685	-586,480	-624,601	351,873	374,745	399,104	425,045	452,673	482,097	513,433	546,807	582,349	620,202	-1,122,282	-3,000,535	-3,195,570	-3,403,282	-3,624,495	-3,860,087	-67,874,118
Opening Balanc	0																							
Closing Balanc	-43,396,689	-45,172,056	-46,554,284	-48,026,357	-48,577,042	-49,163,522	-49,788,123	-49,436,249	-49,061,504	-48,662,400	-48,237,355	-47,784,681	-47,302,584	-46,789,151	-46,242,344	-45,659,995	-45,039,793	-46,162,075	-49,162,610	-52,358,179	-55,761,461	-59,385,956	-63,246,043	-131,120,161

Base
Site 6

SITE NAME	Site 6	Site 1

INCOME	Av Size m2		%	Number		Price £/m2	GDV £	GIA m2
				1,611				
Market Housing	98.4		75%	1,208		2,300	273,356,360	118,851
Shared Ownership	68.7		17%	270		1,840	34,089,183	18,527
Affordable Rent	68.7		8%	133		1,673	15,266,302	9,125
Social Rent	68.7		0%	0		1,384	0	0
Grant and Subsidy	Shared Ownership					0	0	
	Affordable Rent					0	0	
	Social Rent					0	0	
SITE AREA - Net	46.03	ha		35	/ha		**322,711,845**	**146,502**
SITE AREA - Gross	76.72	ha		21	/ha			

Sales per Quarter	0	
Unit Build Time	3	Quarters

	Whole Site	Per ha NET	Per ha GROSS
Residual Land Value	**-41,598,592**	**-903,756**	**-542,213**
Alternative Use Value	1,918,000		25,000
Uplift 0%	0		0
Plus /ha 250,000	19,180,000		250,000
Viability Threshold	**21,098,000**		**275,000**
	£/m2		
Additional Profit	**-9,126,992**		**-77**

RUN Residual MACRO ctrl+r
Closing balance = 0

RUN CIL MACRO ctrl+i
Closing balance = -141,295,663

Check on phasing dwgs nos
correct

DEVELOPMENT COSTS		/unit or m2	Total		
LAND					
	Land	-25,822		-41,598,592	
	Stamp Duty		0		
	Easements etc.		0		
	Legals Acquisition	1.50%	-623,979	-623,979	
PLANNING					
	Planning Fee		238,518		
	Architects	4.00%	10,997,274		
	QS / PM	0.50%	1,374,659		
	Planning Consultants	1.00%	2,749,319		
	Other Professional	2.50%	6,873,297	22,233,067	
CONSTRUCTION					
	Build Cost - BCIS Based	1,507	220,711,446		
	s106 / CIL		36,891,900		
	Contingency	2.50%	5,517,786		
	Abnormals		11,810,730	274,931,862	
FINANCE					
	Fees		0		
	Interest	6.50%			
	Legal and Valuation		0	0	
SALES					
	Agents	3.0%	9,681,355		
	Legals	0.5%	1,613,559		
	Misc.		0	11,294,915	**266,237,272**

Developers Profit				
	Market Housing	17.50%		**47,837,363**
	Affordable Housing	17.50%		**8,637,210**

35055.60082

Planning fee calc			
Planning app fe	dwgs	rate	
No dwgs	1611		
No dwgs under	50	462	23,100
No dwgs over 5(	1561	138	215,418
		Total	238,518

Stamp duty calc - Residual		
Land payment		-41,598,592
	Total	0

Stamp duty calc - Add Profit			
Land payment			21,098,000
125,000	0%	0%	
250,000	1%	0%	
500,000	3%	0%	
1,000,000	4%	0%	
above	5%	0%	
		Total	0

Pre CIL s106	22,900	£/ Unit (all)		
		Total		**36,891,900**
Post CIL s106	22,900	£/ Unit (all)	36,891,900	
CIL	0	£/m2	0	
		Total		**36,891,900**

Build Cost	/m2	
BCIS	1,268	
Energy	32	2.50%
Energy	0	
Design	0	
Acc & Adpt	8	
Water	0	
Small Sites	0	0%
Site Costs	199	16%
	1,507	

LIT	% GDV	
	0.00%	**0**

RESIDUAL CASH FLOW FOR INTEREST

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME																								
UNITS Started	20	40	40	80	80	120	120	120	120	120	120	120	120	120	120	120	71							
Market Housing		3,393,623	6,787,247	6,787,247	13,574,493	13,574,493	13,574,493	20,361,740	20,361,740	20,361,740	20,361,740	20,361,740	20,361,740	20,361,740	20,361,740	20,361,740	20,361,740	12,047,363	0	0	0	0	0	0
Shared Ownership		423,205	846,411	846,411	1,692,821	1,692,821	1,692,821	2,539,232	2,539,232	2,539,232	2,539,232	2,539,232	2,539,232	2,539,232	2,539,232	2,539,232	2,539,232	1,502,379	0	0	0	0	0	0
Affordable Rent		189,526	379,052	379,052	758,103	758,103	758,103	1,137,155	1,137,155	1,137,155	1,137,155	1,137,155	1,137,155	1,137,155	1,137,155	1,137,155	1,137,155	672,817	0	0	0	0	0	0
Social Rent		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grant and Subsidy		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INCOME	**0**	**4,006,354**	**8,012,709**	**8,012,709**	**16,025,418**	**16,025,418**	**16,025,418**	**24,038,126**	**24,038,126**	**24,038,126**	**24,038,126**	**24,038,126**	**24,038,126**	**24,038,126**	**24,038,126**	**24,038,126**	**24,038,126**	**14,222,558**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Stamp Duty	0																							
Easements etc.	0																							
Legals Acquisition	-623,979																							
Planning Fee	238,518																							
Architects	10,997,274		0																					
QS	1,374,659		0																					
Planning Consultants	2,749,319		0																					
Other Professional	6,873,297		0																					
Build Cost - BCIS Base		2,740,055	5,480,110	5,480,110	10,960,221	10,960,221	10,960,221	16,440,331	16,440,331	16,440,331	16,440,331	16,440,331	16,440,331	16,440,331	16,440,331	16,440,331	16,440,331	9,727,196	0	0	0	0	0	0
s106/CIL		458,000	916,000	916,000	1,832,000	1,832,000	1,832,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	1,625,900	0	0	0	0	0	0
Contingency		68,501	137,003	137,003	274,006	274,006	274,006	411,008	411,008	411,008	411,008	411,008	411,008	411,008	411,008	411,008	411,008	243,180	0	0	0	0	0	0
Abnormals		146,626	293,252	293,252	586,504	586,504	586,504	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	520,523	0	0	0	0	0	0
Finance Fees	0																							
Legal and Valuation	0																							
Agents	0	120,191	240,381	240,381	480,763	480,763	480,763	721,144	721,144	721,144	721,144	721,144	721,144	721,144	721,144	721,144	721,144	426,677	0	0	0	0	0	0
Legals	0	20,032	40,064	40,064	80,127	80,127	80,127	120,191	120,191	120,191	120,191	120,191	120,191	120,191	120,191	120,191	120,191	71,113	0	0	0	0	0	0
Misc.			0																					
COSTS BEFORE LAND INT AND PROFIT	**21,609,088**	**3,553,405**	**7,106,810**	**7,106,810**	**14,213,620**	**14,213,620**	**14,213,620**	**21,320,430**	**21,320,430**	**21,320,430**	**21,320,430**	**21,320,430**	**21,320,430**	**21,320,430**	**21,320,430**	**21,320,430**	**21,320,430**	**12,614,588**	**0**	**0**	**0**	**0**	**0**	**0**
For Residual Valuation Land	-41,598,592																							
Interest		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Profit on Costs																								47,837,363
Profit on GDV																								8,637,210
Cash Flow	19,989,504	452,949	905,899	905,899	1,811,797	1,811,797	1,811,797	2,717,696	2,717,696	2,717,696	2,717,696	2,717,696	2,717,696	2,717,696	2,717,696	2,717,696	2,717,696	1,607,970	0	0	0	0	0	-56,474,573
Opening Balanc	0																							
Closing Balanc	19,989,504	20,442,454	21,348,352	22,254,251	24,066,048	25,877,846	27,689,643	30,407,339	33,125,035	35,842,731	38,560,427	41,278,123	43,995,819	46,713,515	49,431,211	52,148,907	54,866,603	56,474,573	56,474,573	56,474,573	56,474,573	56,474,573	56,474,573	0

CASH FLOW FOR CIL ADDITIONAL PROFIT

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME As Above																								
INCOME	**0**	**4,006,354**	**8,012,709**	**8,012,709**	**16,025,418**	**16,025,418**	**16,025,418**	**24,038,126**	**24,038,126**	**24,038,126**	**24,038,126**	**24,038,126**	**24,038,126**	**24,038,126**	**24,038,126**	**24,038,126**	**24,038,126**	**14,222,558**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Land	21,098,000																							
Stamp Duty	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Easements etc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legals Acquisition	316,470	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Fee	238,518	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Architects	10,997,274	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QS	1,374,659	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Consultants	2,749,319	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Professional	6,873,297	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Build Cost - BCIS Base	0	2,740,055	5,480,110	5,480,110	10,960,221	10,960,221	10,960,221	16,440,331	16,440,331	16,440,331	16,440,331	16,440,331	16,440,331	16,440,331	16,440,331	16,440,331	16,440,331	9,727,196	0	0	0	0	0	0
POTENTIAL CIL	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882							
Post CIL s106		458,000	916,000	916,000	1,832,000	1,832,000	1,832,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	1,625,900	0	0	0	0	0	0
Contingency	0	68,501	137,003	137,003	274,006	274,006	274,006	411,008	411,008	411,008	411,008	411,008	411,008	411,008	411,008	411,008	411,008	243,180	0	0	0	0	0	0
Abnormals	0	146,626	293,252	293,252	586,504	586,504	586,504	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	520,523	0	0	0	0	0	0
Finance Fees	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legal and Valuation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Agents	0	120,191	240,381	240,381	480,763	480,763	480,763	721,144	721,144	721,144	721,144	721,144	721,144	721,144	721,144	721,144	721,144	426,677	0	0	0	0	0	0
Legals	0	20,032	40,064	40,064	80,127	80,127	80,127	120,191	120,191	120,191	120,191	120,191	120,191	120,191	120,191	120,191	120,191	71,113	0	0	0	0	0	0
Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COSTS BEFORE LAND INT AND PROFIT	**43,110,655**	**3,016,523**	**6,569,928**	**6,569,928**	**13,676,738**	**13,676,738**	**13,676,738**	**20,783,548**	**20,783,548**	**20,783,548**	**20,783,548**	**20,783,548**	**20,783,548**	**20,783,548**	**20,783,548**	**20,783,548**	**20,783,548**	**12,614,588**	**0**	**0**	**0**	**0**	**0**	**0**
For CIL calculation																								
Interest		2,802,193	2,919,996	3,016,015	3,118,275	3,168,299	3,221,574	3,278,313	3,279,855	3,281,498	3,283,248	3,285,112	3,287,096	3,289,210	3,291,461	3,293,859	3,296,412	3,299,131	3,409,057	3,630,645	3,866,637	4,117,969	4,385,637	4,670,703
Profit on cost																								56,130,781
Profit on GDV																								8,637,210
Cash Flow	-43,110,655	-1,812,361	-1,477,216	-1,573,235	-769,596	-819,620	-872,895	-23,735	-25,277	-26,920	-28,670	-30,534	-32,519	-34,632	-36,883	-39,281	-41,834	-1,691,161	-3,409,057	-3,630,645	-3,866,637	-4,117,969	-4,385,637	-69,438,694
Opening Balanc	0																							
Closing Balanc	-43,110,655	-44,923,016	-46,400,232	-47,973,467	-48,743,063	-49,562,683	-50,435,578	-50,459,312	-50,484,590	-50,511,510	-50,540,181	-50,570,715	-50,603,233	-50,637,865	-50,674,749	-50,714,030	-50,755,864	-52,447,025	-55,856,081	-59,486,727	-63,353,364	-67,471,332	-71,856,969	-141,295,663

Base
Site 7

SITE NAME	Site 7	Site 1

INCOME	Av Size m2		%	Number		Price £/m2	GDV £	GIA m2
				1,611				
Market Housing	98.4		70%	1,128		2,300	255,135,527	110,928
Shared Ownership	68.7		20%	324		1,840	40,911,207	22,234
Affordable Rent	68.7		10%	159		1,673	18,321,438	10,951
Social Rent	68.7		0%	0		1,384	0	0
Grant and Subsidy	Shared Ownership					0	0	
	Affordable Rent					0	0	
	Social Rent					0	0	
SITE AREA - Net	46.03	ha		35	/ha		**314,368,171**	**144,114**
SITE AREA - Gross	76.72	ha		21	/ha			

Sales per Quarter	0
Unit Build Time	3 Quarters

	Whole Site	Per ha NET	Per ha GROSS
Residual Land Value	**-44,284,054**	**-962,099**	**-577,217**
Alternative Use Value	1,918,000		25,000
Uplift 0%	0		0
Plus /ha 250,000	19,180,000		250,000
Viability Threshold	**21,098,000**		**275,000**
	£/m2		
Additional Profit	**-9,126,992**		**-82**

RUN Residual MACRO ctrl+r
Closing balance = 0

RUN CIL MACRO ctrl+i
Closing balance = -151,453,503

Check on phasing dwgs nos
correct

DEVELOPMENT COSTS		/unit or m2	Total	
LAND				
	Land	-27,489		-44,284,054
	Stamp Duty		0	
	Easements etc.		0	
	Legals Acquisition	1.50%	-664,261	-664,261
PLANNING				
	Planning Fee		238,518	
	Architects	4.00%	10,854,098	
	QS / PM	0.50%	1,356,762	
	Planning Consultants	1.00%	2,713,525	
	Other Professional	2.50%	6,783,811	21,946,714
CONSTRUCTION				
	Build Cost - BCIS Based	1,507	217,219,342	
	s106 / CIL		36,891,900	
	Contingency	2.50%	5,430,484	
	Abnormals		11,810,730	271,352,456
FINANCE				
	Fees		0	
	Interest	6.50%		
	Legal and Valuation		0	0
SALES				
	Agents	3.0%	9,431,045	
	Legals	0.5%	1,571,841	
	Misc.		0	11,002,886 **259,353,741**

Developers Profit			
	Market Housing	17.50%	**44,648,717**
	Affordable Housing	17.50%	**10,365,713**

34149.24268

Planning fee calc			
Planning app fe	dwgs	rate	
No dwgs	1611		
No dwgs under	50	462	23,100
No dwgs over 5(	1561	138	215,418
		Total	238,518

Stamp duty calc - Residual	
Land payment	-44,284,054
Total	0

Stamp duty calc - Add Profit		
Land payment		21,098,000
125,000	0%	0%
250,000	1%	0%
500,000	3%	0%
1,000,000	4%	0%
above	5%	0%
Total		0

Pre CIL s106	22,900	£/ Unit (all)	
		Total	**36,891,900**

Post CIL s106	22,900	£/ Unit (all)	36,891,900
CIL	0	£/m2	0
		Total	**36,891,900**

Build Cost	/m2	
BCIS	1,269	
Energy	32	2.50%
Energy	0	
Design	0	
Acc & Adpt	8	
Water	0	
Small Sites	0	0%
Site Costs	199	16%
	1,507	

LIT	% GDV	
	0.00%	**0**

RESIDUAL CASH FLOW FOR INTEREST

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME																								
UNITS Started	20	40	40	80	80	80	120	120	120	120	120	120	120	120	120	120	71							
Market Housing		3,167,418	6,334,836	6,334,836	12,669,672	12,669,672	12,669,672	19,004,509	19,004,509	19,004,509	19,004,509	19,004,509	19,004,509	19,004,509	19,004,509	19,004,509	19,004,509	11,244,334	0	0	0	0	0	0
Shared Ownership		507,898	1,015,797	1,015,797	2,031,593	2,031,593	2,031,593	3,047,390	3,047,390	3,047,390	3,047,390	3,047,390	3,047,390	3,047,390	3,047,390	3,047,390	3,047,390	1,803,039	0	0	0	0	0	0
Affordable Rent		227,454	454,908	454,908	909,817	909,817	909,817	1,364,725	1,364,725	1,364,725	1,364,725	1,364,725	1,364,725	1,364,725	1,364,725	1,364,725	1,364,725	807,462	0	0	0	0	0	0
Social Rent		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grant and Subsidy		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INCOME	**0**	**3,902,771**	**7,805,541**	**7,805,541**	**15,611,082**	**15,611,082**	**15,611,082**	**23,416,624**	**23,416,624**	**23,416,624**	**23,416,624**	**23,416,624**	**23,416,624**	**23,416,624**	**23,416,624**	**23,416,624**	**23,416,624**	**13,854,836**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Stamp Duty	0																							
Easements etc.	0																							
Legals Acquisition	-664,261																							
Planning Fee	238,518																							
Architects	10,854,098		0																					
QS	1,356,762		0																					
Planning Consultants	2,713,525		0																					
Other Professional	6,783,811		0																					
Build Cost - BCIS Base		2,696,702	5,393,404	5,393,404	10,786,808	10,786,808	10,786,808	16,180,212	16,180,212	16,180,212	16,180,212	16,180,212	16,180,212	16,180,212	16,180,212	16,180,212	16,180,212	9,573,292	0	0	0	0	0	0
s106/CIL		458,000	916,000	916,000	1,832,000	1,832,000	1,832,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	1,625,900	0	0	0	0	0	0
Contingency		67,418	134,835	134,835	269,670	269,670	269,670	404,505	404,505	404,505	404,505	404,505	404,505	404,505	404,505	404,505	404,505	239,332	0	0	0	0	0	0
Abnormals		146,626	293,252	293,252	586,504	586,504	586,504	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	520,523	0	0	0	0	0	0
Finance Fees	0																							
Legal and Valuation	0																							
Agents	0	117,083	234,166	234,166	468,332	468,332	468,332	702,499	702,499	702,499	702,499	702,499	702,499	702,499	702,499	702,499	702,499	415,645	0	0	0	0	0	0
Legals	0	19,514	39,028	39,028	78,055	78,055	78,055	117,083	117,083	117,083	117,083	117,083	117,083	117,083	117,083	117,083	117,083	69,274	0	0	0	0	0	0
Misc.			0																					
COSTS BEFORE LAND INT AND PROFIT	**21,282,454**	**3,505,343**	**7,010,685**	**7,010,685**	**14,021,370**	**14,021,370**	**14,021,370**	**21,032,055**	**21,032,055**	**21,032,055**	**21,032,055**	**21,032,055**	**21,032,055**	**21,032,055**	**21,032,055**	**21,032,055**	**21,032,055**	**12,443,966**	**0**	**0**	**0**	**0**	**0**	**0**
For Residual Valuation Land	**-44,284,054**																							
Interest		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Profit on Costs																								44,648,717
Profit on GDV																								10,365,713
Cash Flow	23,001,600	397,428	794,856	794,856	1,589,712	1,589,712	1,589,712	2,384,568	2,384,568	2,384,568	2,384,568	2,384,568	2,384,568	2,384,568	2,384,568	2,384,568	2,384,568	1,410,870	0	0	0	0	0	-55,014,430
Opening Balanc	0																							
Closing Balanc	23,001,600	23,399,028	24,193,885	24,988,741	26,578,453	28,168,165	29,757,877	32,142,446	34,527,014	36,911,582	39,296,151	41,680,719	44,065,287	46,449,855	48,834,424	51,218,992	53,603,560	55,014,430	55,014,430	55,014,430	55,014,430	55,014,430	55,014,430	0

CASH FLOW FOR CIL ADDITIONAL PROFIT

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME As Above																								
INCOME	**0**	**3,902,771**	**7,805,541**	**7,805,541**	**15,611,082**	**15,611,082**	**15,611,082**	**23,416,624**	**23,416,624**	**23,416,624**	**23,416,624**	**23,416,624**	**23,416,624**	**23,416,624**	**23,416,624**	**23,416,624**	**23,416,624**	**13,854,836**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Land	21,098,000																							
Stamp Duty	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Easements etc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legals Acquisition	316,470	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Fee	238,518	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Architects	10,854,098	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QS	1,356,762	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Consultants	2,713,525	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Professional	6,783,811	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Build Cost - BCIS Base	0	2,696,702	5,393,404	5,393,404	10,786,808	10,786,808	10,786,808	16,180,212	16,180,212	16,180,212	16,180,212	16,180,212	16,180,212	16,180,212	16,180,212	16,180,212	16,180,212	9,573,292	0	0	0	0	0	0
POTENTIAL CIL	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882							
Post CIL s106		458,000	916,000	916,000	1,832,000	1,832,000	1,832,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	2,748,000	1,625,900	0	0	0	0	0	0
Contingency	0	67,418	134,835	134,835	269,670	269,670	269,670	404,505	404,505	404,505	404,505	404,505	404,505	404,505	404,505	404,505	404,505	239,332	0	0	0	0	0	0
Abnormals	0	146,626	293,252	293,252	586,504	586,504	586,504	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	879,756	520,523	0	0	0	0	0	0
Finance Fees	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legal and Valuation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Agents	0	117,083	234,166	234,166	468,332	468,332	468,332	702,499	702,499	702,499	702,499	702,499	702,499	702,499	702,499	702,499	702,499	415,645	0	0	0	0	0	0
Legals	0	19,514	39,028	39,028	78,055	78,055	78,055	117,083	117,083	117,083	117,083	117,083	117,083	117,083	117,083	117,083	117,083	69,274	0	0	0	0	0	0
Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COSTS BEFORE LAND INT AND PROFIT	**42,824,303**	**2,968,461**	**6,473,803**	**6,473,803**	**13,484,488**	**13,484,488**	**13,484,488**	**20,495,173**	**20,495,173**	**20,495,173**	**20,495,173**	**20,495,173**	**20,495,173**	**20,495,173**	**20,495,173**	**20,495,173**	**20,495,173**	**12,443,966**	**0**	**0**	**0**	**0**	**0**	**0**
For CIL calculation																								
Interest		2,783,580	2,903,782	3,005,965	3,114,790	3,179,023	3,247,430	3,320,285	3,346,209	3,373,818	3,403,222	3,434,537	3,467,888	3,503,407	3,541,234	3,581,520	3,624,424	3,670,118	3,816,969	4,065,072	4,329,301	4,610,706	4,910,402	5,229,578
Profit on cost																								55,403,169
Profit on GDV																								10,365,713
Cash Flow	-42,824,303	-1,849,270	-1,572,044	-1,674,227	-988,196	-1,052,428	-1,120,836	-398,835	-424,759	-452,368	-481,772	-513,087	-546,438	-581,956	-619,784	-660,070	-702,974	-2,259,248	-3,816,969	-4,065,072	-4,329,301	-4,610,706	-4,910,402	-70,998,459
Opening Balanc	0																							
Closing Balanc	-42,824,303	-44,673,572	-46,245,617	-47,919,844	-48,908,039	-49,960,468	-51,081,304	-51,480,139	-51,904,898	-52,357,266	-52,839,038	-53,352,125	-53,898,563	-54,480,520	-55,100,303	-55,760,373	-56,463,347	-58,722,595	-62,539,563	-66,604,635	-70,933,936	-75,544,642	-80,455,044	-151,453,503

Base
Site 8

SITE NAME	Site 8	Site 2

INCOME		Av Size m2		%	Number		Price £/m2	GDV £	GIA m2
Market Housing		98.3		100%	994		2,300	224,815,800	97,746
Shared Ownership		98.3		0%	0		1,840	0	0
Affordable Rent		98.3		0%	0		1,673	0	0
Social Rent		98.3		0%	0		1,384	0	0
Grant and Subsidy	Shared Ownership						0	0	
	Affordable Rent						0	0	
	Social Rent						0	0	
SITE AREA - Net		28.40	ha		35	/ha		**224,815,800**	**97,746**
SITE AREA - Gross		47.32	ha		21	/ha			

Sales per Quarter	0	
Unit Build Time	3	Quarters

		Whole Site	Per ha NET	Per ha GROSS
Residual Land Value		**-20,866,353**	**-734,731**	**-440,963**
Alternative Use Value		1,183,000		25,000
Uplift	0%	0		0
Plus /ha	250,000	11,830,000		250,000
Viability Threshold		**13,013,000**		**275,000**
		£/m2		
Additional Profit		**-8,053,228**		**-82**

RUN Residual MACRO ctrl+r
Closing balance = 0

RUN CIL MACRO ctrl+i
Closing balance = -48,558,817

Check on phasing dwgs nos
correct

DEVELOPMENT COSTS			/unit or m2	Total	
LAND					
	Land		-20,992		-20,866,353
	Stamp Duty			0	
	Easements etc.			0	
	Legals Acquisition		1.50%	-312,995	-312,995
PLANNING					
	Planning Fee			153,372	
	Architects		4.00%	7,356,684	
	QS / PM		0.50%	919,585	
	Planning Consultants		1.00%	1,839,171	
	Other Professional		2.50%	4,597,927	14,866,739
CONSTRUCTION					
	Build Cost - BCIS Based		1,503	146,939,367	
	s106 / CIL			25,744,600	
	Contingency		2.50%	3,673,484	
	Abnormals			7,559,640	183,917,091
FINANCE					
	Fees			0	
	Interest		6.50%		
	Legal and Valuation			0	0
SALES					
	Agents		3.0%	6,744,474	
	Legals		0.5%	1,124,079	
	Misc.			0	7,868,553 **185,473,035**

Developers Profit			
Market Housing	17.50%		**39,342,765**
Affordable Housing	17.50%		**0**

39580.24648

Planning fee calc			
Planning app fe	dwgs	rate	
No dwgs	994		
No dwgs under	50	462	23,100
No dwgs over 5(	944	138	130,272
		Total	153,372

Stamp duty calc - Residual	
Land payment	-20,866,353
Total	0

Stamp duty calc - Add Profit			
Land payment			13,013,000
125,000	0%	0%	
250,000	1%	0%	
500,000	3%	0%	
1,000,000	4%	0%	
above	5%	0%	
		Total	0

Pre CIL s106	25,900	£/ Unit (all)	
		Total	**25,744,600**

Post CIL s106	25,900	£/ Unit (all)	25,744,600
CIL	0	£/m2	0
		Total	**25,744,600**

Build Cost	/m2	
BCIS	1,265	
Energy	32	2.50%
Energy	0	
Design	0	
Acc & Adpt	8	
Water	0	
Small Sites	0	0%
Site Costs	198	16%
	1,503	

LIT	% GDV	
	0.00%	**0**

RESIDUAL CASH FLOW FOR INTEREST

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME																								
UNITS Started	20	40	40	80	80	80	80	80	80	80	80	80	80	80	14									
Market Housing		4,523,457	9,046,913	9,046,913	18,093,827	18,093,827	18,093,827	18,093,827	18,093,827	18,093,827	18,093,827	18,093,827	18,093,827	18,093,827	18,093,827	3,166,420	0	0	0	0	0	0	0	0
Shared Ownership		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Affordable Rent		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Social Rent		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grant and Subsidy		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INCOME	**0**	**4,523,457**	**9,046,913**	**9,046,913**	**18,093,827**	**18,093,827**	**18,093,827**	**18,093,827**	**18,093,827**	**18,093,827**	**18,093,827**	**18,093,827**	**18,093,827**	**18,093,827**	**18,093,827**	**3,166,420**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Stamp Duty	0																							
Easements etc.	0																							
Legals Acquisition	-312,995																							
Planning Fee	153,372																							
Architects	7,356,684		0																					
QS	919,585		0																					
Planning Consultants	1,839,171		0																					
Other Professional	4,597,927		0																					
Build Cost - BCIS Base		2,956,527	5,913,053	5,913,053	11,826,106	11,826,106	11,826,106	11,826,106	11,826,106	11,826,106	11,826,106	11,826,106	11,826,106	11,826,106	11,826,106	2,069,569	0	0	0	0	0	0	0	0
s106/CIL		518,000	1,036,000	1,036,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	362,600	0	0	0	0	0	0	0	0
Contingency		73,913	147,826	147,826	295,653	295,653	295,653	295,653	295,653	295,653	295,653	295,653	295,653	295,653	295,653	51,739	0	0	0	0	0	0	0	0
Abnormals		152,105	304,211	304,211	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	106,474	0	0	0	0	0	0	0	0
Finance Fees	0																							
Legal and Valuation	0																							
Agents	0	135,704	271,407	271,407	542,815	542,815	542,815	542,815	542,815	542,815	542,815	542,815	542,815	542,815	542,815	94,993	0	0	0	0	0	0	0	0
Legals	0	22,617	45,235	45,235	90,469	90,469	90,469	90,469	90,469	90,469	90,469	90,469	90,469	90,469	90,469	15,832	0	0	0	0	0	0	0	0
Misc.			0																					
COSTS BEFORE LAND INT AND PROFIT	**14,553,744**	**3,858,866**	**7,717,732**	**7,717,732**	**15,435,464**	**15,435,464**	**15,435,464**	**15,435,464**	**15,435,464**	**15,435,464**	**15,435,464**	**15,435,464**	**15,435,464**	**15,435,464**	**15,435,464**	**2,701,206**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
For Residual Valuation Land	-20,866,353																							
Interest		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Profit on Costs																								39,342,765
Profit on GDV																								0
Cash Flow	6,312,609	664,591	1,329,181	1,329,181	2,658,363	2,658,363	2,658,363	2,658,363	2,658,363	2,658,363	2,658,363	2,658,363	2,658,363	2,658,363	2,658,363	465,213	0	0	0	0	0	0	0	-39,342,765
Opening Balanc	0																							
Closing Balanc	6,312,609	6,977,200	8,306,381	9,635,563	12,293,925	14,952,288	17,610,651	20,269,013	22,927,376	25,585,738	28,244,101	30,902,464	33,560,826	36,219,189	38,877,552	39,342,765	39,342,765	39,342,765	39,342,765	39,342,765	39,342,765	39,342,765	39,342,765	0

CASH FLOW FOR CIL ADDITIONAL PROFIT

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME As Above																								
INCOME	**0**	**4,523,457**	**9,046,913**	**9,046,913**	**18,093,827**	**18,093,827**	**18,093,827**	**18,093,827**	**18,093,827**	**18,093,827**	**18,093,827**	**18,093,827**	**18,093,827**	**18,093,827**	**18,093,827**	**3,166,420**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Land	13,013,000																							
Stamp Duty	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Easements etc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legals Acquisition	195,195	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Fee	153,372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Architects	7,356,684	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QS	919,585	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Consultants	1,839,171	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Professional	4,597,927	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Build Cost - BCIS Base	0	2,956,527	5,913,053	5,913,053	11,826,106	11,826,106	11,826,106	11,826,106	11,826,106	11,826,106	11,826,106	11,826,106	11,826,106	11,826,106	11,826,106	2,069,569	0	0	0	0	0	0	0	0
POTENTIAL CIL	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882									
Post CIL s106		518,000	1,036,000	1,036,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	362,600	0	0	0	0	0	0	0	0
Contingency	0	73,913	147,826	147,826	295,653	295,653	295,653	295,653	295,653	295,653	295,653	295,653	295,653	295,653	295,653	51,739	0	0	0	0	0	0	0	0
Abnormals	0	152,105	304,211	304,211	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	106,474	0	0	0	0	0	0	0	0
Finance Fees	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legal and Valuation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Agents	0	135,704	271,407	271,407	542,815	542,815	542,815	542,815	542,815	542,815	542,815	542,815	542,815	542,815	542,815	94,993	0	0	0	0	0	0	0	0
Legals	0	22,617	45,235	45,235	90,469	90,469	90,469	90,469	90,469	90,469	90,469	90,469	90,469	90,469	90,469	15,832	0	0	0	0	0	0	0	0
Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COSTS BEFORE LAND INT AND PROFIT	**27,538,052**	**3,321,984**	**7,180,850**	**7,180,850**	**14,898,582**	**14,898,582**	**14,898,582**	**14,898,582**	**14,898,582**	**14,898,582**	**14,898,582**	**14,898,582**	**14,898,582**	**14,898,582**	**14,898,582**	**2,701,206**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
For CIL calculation																								
Interest		1,789,973	1,828,226	1,825,767	1,823,147	1,733,961	1,638,978	1,537,820	1,430,088	1,315,352	1,193,159	1,063,024	924,430	776,827	619,629	452,214	451,369	480,708	511,955	545,232	580,672	618,415	658,612	701,422
Profit on cost																								37,066,286
Profit on GDV																								0
Cash Flow	-27,538,052	-588,501	37,837	40,297	1,372,097	1,461,284	1,556,267	1,657,424	1,765,157	1,879,892	2,002,085	2,132,221	2,270,815	2,418,418	2,575,615	12,999	-451,369	-480,708	-511,955	-545,232	-580,672	-618,415	-658,612	-37,767,708
Opening Balanc	0																							
Closing Balanc	-27,538,052	-28,126,553	-28,088,716	-28,048,419	-26,676,322	-25,215,039	-23,658,772	-22,001,347	-20,236,190	-18,356,298	-16,354,213	-14,221,993	-11,951,178	-9,532,760	-6,957,145	-6,944,145	-7,395,515	-7,876,223	-8,388,178	-8,933,409	-9,514,081	-10,132,496	-10,791,109	-48,558,817

Base
Site 9

SITE NAME	Site 9	Site 2

INCOME	Av Size m2		%	Number		Price £/m2	GDV £	GIA m2
Market Housing	98.3		95%	944		2,300	213,533,139	92,840
Shared Ownership	68.3		3%	33		1,840	4,182,301	2,273
Affordable Rent	68.3		2%	16		1,673	1,872,977	1,120
Social Rent	68.3		0%	0		1,384	0	0
Grant and Subsidy	Shared Ownership					0	0	
	Affordable Rent					0	0	
	Social Rent					0	0	
SITE AREA - Net	28.40	ha		35	/ha		**219,588,417**	**96,233**
SITE AREA - Gross	47.32	ha		21	/ha			

Sales per Quarter	0	
Unit Build Time	3	Quarters

		Whole Site	Per ha NET	Per ha GROSS
Residual Land Value		-22,490,689	-791,926	-475,289
Alternative Use Value		1,183,000		25,000
Uplift	0%	0		0
Plus /ha	250,000	11,830,000		250,000
Viability Threshold		**13,013,000**		**275,000**
		£/m2		
Additional Profit		-8,053,228		-87

RUN Residual MACRO ctrl+r
Closing balance = 0

RUN CIL MACRO ctrl+i
Closing balance = -55,450,064

Check on phasing dwgs nos
correct

DEVELOPMENT COSTS		/unit or m2	Total		
LAND					
	Land	-22,626		-22,490,689	
	Stamp Duty		0		
	Easements etc.		0		
	Legals Acquisition	1.50%	-337,360	-337,360	
PLANNING					
	Planning Fee		153,372		
	Architects	4.00%	7,264,797		
	QS / PM	0.50%	908,100		
	Planning Consultants	1.00%	1,816,199		
	Other Professional	2.50%	4,540,498	14,682,967	
CONSTRUCTION					
	Build Cost - BCIS Based	1,504	144,698,236		
	s106 / CIL		25,744,600		
	Contingency	2.50%	3,617,456		
	Abnormals		7,559,640	181,619,932	
FINANCE					
	Fees		0		
	Interest	6.50%			
	Legal and Valuation		0	0	
SALES					
	Agents	3.0%	6,587,653		
	Legals	0.5%	1,097,942		
	Misc.		0	7,685,595	**181,160,444**

Developers Profit				
	Market Housing	17.50%		**37,368,299**
	Affordable Housing	17.50%		**1,059,674**

38659.9326

Planning fee calc			
Planning app fe	dwgs	rate	
No dwgs	994		
No dwgs under	50	462	23,100
No dwgs over 5(	944	138	130,272
		Total	153,372

Stamp duty calc - Residual		
Land payment		-22,490,689
	Total	0

Stamp duty calc - Add Profit			
Land payment			13,013,000
125,000	0%	0%	
250,000	1%	0%	
500,000	3%	0%	
1,000,000	4%	0%	
above	5%	0%	
		Total	0

Pre CIL s106	25,900	£/ Unit (all)	
		Total	**25,744,600**

Post CIL s106	25,900	£/ Unit (all)	25,744,600
CIL	0	£/m2	0
		Total	**25,744,600**

Build Cost	/m2	
BCIS	1,266	
Energy	32	2.50%
Energy	0	
Design	0	
Acc & Adpt	8	
Water	0	
Small Sites	0	0%
Site Costs	198	16%
	1,504	

LIT	% GDV	
	0.00%	**0**

RESIDUAL CASH FLOW FOR INTEREST

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME																								
UNITS Started	20	40	40	80	80	80	80	80	80	80	80	80	80	80	14									
Market Housing		4,296,441	8,592,883	8,592,883	17,185,766	17,185,766	17,185,766	17,185,766	17,185,766	17,185,766	17,185,766	17,185,766	17,185,766	17,185,766	17,185,766	3,007,509	0	0	0	0	0	0	0	0
Shared Ownership		84,151	168,302	168,302	336,604	336,604	336,604	336,604	336,604	336,604	336,604	336,604	336,604	336,604	336,604	58,906	0	0	0	0	0	0	0	0
Affordable Rent		37,686	75,371	75,371	150,743	150,743	150,743	150,743	150,743	150,743	150,743	150,743	150,743	150,743	150,743	26,380	0	0	0	0	0	0	0	0
Social Rent		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grant and Subsidy		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INCOME	**0**	**4,418,278**	**8,836,556**	**8,836,556**	**17,673,112**	**17,673,112**	**17,673,112**	**17,673,112**	**17,673,112**	**17,673,112**	**17,673,112**	**17,673,112**	**17,673,112**	**17,673,112**	**17,673,112**	**3,092,795**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Stamp Duty	0																							
Easements etc.	0																							
Legals Acquisition	-337,360																							
Planning Fee	153,372																							
Architects	7,264,797		0																					
QS	908,100		0																					
Planning Consultants	1,816,199		0																					
Other Professional	4,540,498		0																					
Build Cost - BCIS Base		2,911,433	5,822,867	5,822,867	11,645,733	11,645,733	11,645,733	11,645,733	11,645,733	11,645,733	11,645,733	11,645,733	11,645,733	11,645,733	11,645,733	2,038,003	0	0	0	0	0	0	0	0
s106/CIL		518,000	1,036,000	1,036,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	362,600	0	0	0	0	0	0	0	0
Contingency		72,786	145,572	145,572	291,143	291,143	291,143	291,143	291,143	291,143	291,143	291,143	291,143	291,143	291,143	50,950	0	0	0	0	0	0	0	0
Abnormals		152,105	304,211	304,211	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	106,474	0	0	0	0	0	0	0	0
Finance Fees	0																							
Legal and Valuation	0																							
Agents	0	132,548	265,097	265,097	530,193	530,193	530,193	530,193	530,193	530,193	530,193	530,193	530,193	530,193	530,193	92,784	0	0	0	0	0	0	0	0
Legals	0	22,091	44,183	44,183	88,366	88,366	88,366	88,366	88,366	88,366	88,366	88,366	88,366	88,366	88,366	15,464	0	0	0	0	0	0	0	0
Misc.			0																					
COSTS BEFORE LAND INT AND PROFIT	**14,345,606**	**3,808,964**	**7,617,929**	**7,617,929**	**15,235,857**	**15,235,857**	**15,235,857**	**15,235,857**	**15,235,857**	**15,235,857**	**15,235,857**	**15,235,857**	**15,235,857**	**15,235,857**	**15,235,857**	**2,666,275**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
For Residual Valuation Land	-22,490,689																							
Interest		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Profit on Costs																								37,368,299
Profit on GDV																								1,059,674
Cash Flow	8,145,083	609,314	1,218,627	1,218,627	2,437,255	2,437,255	2,437,255	2,437,255	2,437,255	2,437,255	2,437,255	2,437,255	2,437,255	2,437,255	2,437,255	426,520	0	0	0	0	0	0	0	-38,427,973
Opening Balanc	0																							
Closing Balanc	8,145,083	8,754,396	9,973,024	11,191,651	13,628,906	16,066,161	18,503,415	20,940,670	23,377,925	25,815,180	28,252,434	30,689,689	33,126,944	35,564,199	38,001,453	38,427,973	38,427,973	38,427,973	38,427,973	38,427,973	38,427,973	38,427,973	38,427,973	0

CASH FLOW FOR CIL ADDITIONAL PROFIT

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME As Above																								
INCOME	**0**	**4,418,278**	**8,836,556**	**8,836,556**	**17,673,112**	**17,673,112**	**17,673,112**	**17,673,112**	**17,673,112**	**17,673,112**	**17,673,112**	**17,673,112**	**17,673,112**	**17,673,112**	**17,673,112**	**3,092,795**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Land	13,013,000																							
Stamp Duty	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Easements etc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legals Acquisition	195,195	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Fee	153,372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Architects	7,264,797	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QS	908,100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Consultants	1,816,199	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Professional	4,540,498	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Build Cost - BCIS Base	0	2,911,433	5,822,867	5,822,867	11,645,733	11,645,733	11,645,733	11,645,733	11,645,733	11,645,733	11,645,733	11,645,733	11,645,733	11,645,733	11,645,733	2,038,003	0	0	0	0	0	0	0	0
POTENTIAL CIL	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882									
Post CIL s106		518,000	1,036,000	1,036,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	362,600	0	0	0	0	0	0	0	0
Contingency	0	72,786	145,572	145,572	291,143	291,143	291,143	291,143	291,143	291,143	291,143	291,143	291,143	291,143	291,143	50,950	0	0	0	0	0	0	0	0
Abnormals	0	152,105	304,211	304,211	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	106,474	0	0	0	0	0	0	0	0
Finance Fees	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legal and Valuation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Agents	0	132,548	265,097	265,097	530,193	530,193	530,193	530,193	530,193	530,193	530,193	530,193	530,193	530,193	530,193	92,784	0	0	0	0	0	0	0	0
Legals	0	22,091	44,183	44,183	88,366	88,366	88,366	88,366	88,366	88,366	88,366	88,366	88,366	88,366	88,366	15,464	0	0	0	0	0	0	0	0
Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COSTS BEFORE LAND INT AND PROFIT	**27,354,280**	**3,272,082**	**7,081,047**	**7,081,047**	**14,698,975**	**14,698,975**	**14,698,975**	**14,698,975**	**14,698,975**	**14,698,975**	**14,698,975**	**14,698,975**	**14,698,975**	**14,698,975**	**14,698,975**	**2,666,275**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
For CIL calculation																								
Interest		1,778,028	1,819,097	1,823,231	1,827,632	1,753,110	1,673,743	1,589,217	1,499,198	1,403,326	1,301,224	1,192,485	1,076,677	953,342	821,991	682,101	698,714	744,130	792,499	844,011	898,872	957,299	1,019,523	1,085,792
Profit on cost																								36,600,106
Profit on GDV																								1,059,674
Cash Flow	-27,354,280	-631,833	-63,588	-67,721	1,146,504	1,221,027	1,300,394	1,384,919	1,474,939	1,570,810	1,672,913	1,781,652	1,897,459	2,020,794	2,152,146	-255,582	-698,714	-744,130	-792,499	-844,011	-898,872	-957,299	-1,019,523	-38,745,571
Opening Balanc	0																							
Closing Balanc	-27,354,280	-27,986,112	-28,049,700	-28,117,422	-26,970,917	-25,749,891	-24,449,497	-23,064,577	-21,589,638	-20,018,828	-18,345,916	-16,564,263	-14,666,804	-12,646,010	-10,493,864	-10,749,445	-11,448,159	-12,192,289	-12,984,788	-13,828,799	-14,727,671	-15,684,970	-16,704,493	-55,450,064

Base
Site 10

SITE NAME	Site 10	Site 2

INCOME	Av Size m2		%	Number		Price £/m2	GDV £	GIA m2
Market Housing	98.3		90%	895		2,300	202,331,002	87,970
Shared Ownership	68.7		7%	67		1,840	8,418,520	4,575
Affordable Rent	68.7		3%	33		1,673	3,770,101	2,253
Social Rent	68.7		0%	0		1,384	0	0
Grant and Subsidy	Shared Ownership					0	0	
	Affordable Rent					0	0	
	Social Rent					0	0	
SITE AREA - Net	28.40	ha		35	/ha		**214,519,623**	**94,799**
SITE AREA - Gross	47.32	ha		21	/ha			

Sales per Quarter	0	
Unit Build Time	3	Quarters

		Whole Site	Per ha NET	Per ha GROSS
Residual Land Value		-24,182,082	-851,482	-511,033
Alternative Use Value		1,183,000		25,000
Uplift	0%	0		0
Plus /ha	250,000	11,830,000		250,000
Viability Threshold		**13,013,000**		**275,000**
		£/m2		
Additional Profit		-8,053,228		-92

RUN Residual MACRO ctrl+r
Closing balance = 0

RUN CIL MACRO ctrl+i
Closing balance = -62,517,714

Check on phasing dwgs nos
correct

DEVELOPMENT COSTS		/unit or m2	Total	
LAND				
	Land	-24,328		-24,182,082
	Stamp Duty		0	
	Easements etc.		0	
	Legals Acquisition	1.50%	-362,731	-362,731
PLANNING				
	Planning Fee		153,372	
	Architects	4.00%	7,180,072	
	QS / PM	0.50%	897,509	
	Planning Consultants	1.00%	1,795,018	
	Other Professional	2.50%	4,487,545	14,513,516
CONSTRUCTION				
	Build Cost - BCIS Based	1,505	142,631,765	
	s106 / CIL		25,744,600	
	Contingency	2.50%	3,565,794	
	Abnormals		7,559,640	179,501,799
FINANCE				
	Fees		0	
	Interest	6.50%		
	Legal and Valuation		0	0
SALES				
	Agents	3.0%	6,435,589	
	Legals	0.5%	1,072,598	
	Misc.		0	7,508,187 **176,978,689**

Developers Profit			
	Market Housing	17.50%	**35,407,925**
	Affordable Housing	17.50%	**2,133,009**

37767.5392

Planning fee calc			
Planning app fe	dwgs	rate	
No dwgs	994		
No dwgs under	50	462	23,100
No dwgs over 5(	944	138	130,272
		Total	153,372

Stamp duty calc - Residual		
Land payment		-24,182,082
	Total	0

Stamp duty calc - Add Profit			
Land payment			13,013,000
125,000	0%	0%	
250,000	1%	0%	
500,000	3%	0%	
1,000,000	4%	0%	
above	5%	0%	
		Total	0

Pre CIL s106	25,900	£/ Unit (all)		
		Total		**25,744,600**
Post CIL s106	25,900	£/ Unit (all)	25,744,600	
CIL	0	£/m2	0	
		Total		**25,744,600**

Build Cost	/m2	
BCIS	1,266	
Energy	32	2.50%
Energy	0	
Design	0	
Acc & Adpt	8	
Water	0	
Small Sites	0	0%
Site Costs	198	16%
	1,505	

LIT	% GDV	
	0.00%	**0**

RESIDUAL CASH FLOW FOR INTEREST

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME																								
UNITS Started	20	40	40	80	80	80	80	80	80	80	80	80	80	80	14									
Market Housing		4,071,046	8,142,093	8,142,093	16,284,185	16,284,185	16,284,185	16,284,185	16,284,185	16,284,185	16,284,185	16,284,185	16,284,185	16,284,185	16,284,185	2,849,732	0	0	0	0	0	0	0	0
Shared Ownership		169,387	338,773	338,773	677,547	677,547	677,547	677,547	677,547	677,547	677,547	677,547	677,547	677,547	677,547	118,571	0	0	0	0	0	0	0	0
Affordable Rent		75,857	151,714	151,714	303,429	303,429	303,429	303,429	303,429	303,429	303,429	303,429	303,429	303,429	303,429	53,100	0	0	0	0	0	0	0	0
Social Rent		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grant and Subsidy		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INCOME	**0**	**4,316,290**	**8,632,580**	**8,632,580**	**17,265,161**	**17,265,161**	**17,265,161**	**17,265,161**	**17,265,161**	**17,265,161**	**17,265,161**	**17,265,161**	**17,265,161**	**17,265,161**	**17,265,161**	**3,021,403**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Stamp Duty	0																							
Easements etc.	0																							
Legals Acquisition	-362,731																							
Planning Fee	153,372																							
Architects	7,180,072		0																					
QS	897,509		0																					
Planning Consultants	1,795,018		0																					
Other Professional	4,487,545		0																					
Build Cost - BCIS Base		2,869,854	5,739,709	5,739,709	11,479,418	11,479,418	11,479,418	11,479,418	11,479,418	11,479,418	11,479,418	11,479,418	11,479,418	11,479,418	11,479,418	2,008,898	0	0	0	0	0	0	0	0
s106/CIL		518,000	1,036,000	1,036,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	362,600	0	0	0	0	0	0	0	0
Contingency		71,746	143,493	143,493	286,985	286,985	286,985	286,985	286,985	286,985	286,985	286,985	286,985	286,985	286,985	50,222	0	0	0	0	0	0	0	0
Abnormals		152,105	304,211	304,211	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	106,474	0	0	0	0	0	0	0	0
Finance Fees	0																							
Legal and Valuation	0																							
Agents	0	129,489	258,977	258,977	517,955	517,955	517,955	517,955	517,955	517,955	517,955	517,955	517,955	517,955	517,955	90,642	0	0	0	0	0	0	0	0
Legals	0	21,581	43,163	43,163	86,326	86,326	86,326	86,326	86,326	86,326	86,326	86,326	86,326	86,326	86,326	15,107	0	0	0	0	0	0	0	0
Misc.			0																					
COSTS BEFORE LAND INT AND PROFIT	**14,150,785**	**3,762,776**	**7,525,553**	**7,525,553**	**15,051,106**	**15,051,106**	**15,051,106**	**15,051,106**	**15,051,106**	**15,051,106**	**15,051,106**	**15,051,106**	**15,051,106**	**15,051,106**	**15,051,106**	**2,633,943**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
For Residual Valuation Land	-24,182,082																							
Interest		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Profit on Costs																								35,407,925
Profit on GDV																								2,133,009
Cash Flow	10,031,297	553,514	1,107,028	1,107,028	2,214,055	2,214,055	2,214,055	2,214,055	2,214,055	2,214,055	2,214,055	2,214,055	2,214,055	2,214,055	2,214,055	387,460	0	0	0	0	0	0	0	-37,540,934
Opening Balanc	0																							
Closing Balanc	10,031,297	10,584,811	11,691,839	12,798,866	15,012,922	17,226,977	19,441,032	21,655,087	23,869,143	26,083,198	28,297,253	30,511,308	32,725,364	34,939,419	37,153,474	37,540,934	37,540,934	37,540,934	37,540,934	37,540,934	37,540,934	37,540,934	37,540,934	0

CASH FLOW FOR CIL ADDITIONAL PROFIT

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME As Above																								
INCOME	**0**	**4,316,290**	**8,632,580**	**8,632,580**	**17,265,161**	**17,265,161**	**17,265,161**	**17,265,161**	**17,265,161**	**17,265,161**	**17,265,161**	**17,265,161**	**17,265,161**	**17,265,161**	**17,265,161**	**3,021,403**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Land	13,013,000																							
Stamp Duty	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Easements etc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legals Acquisition	195,195	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Fee	153,372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Architects	7,180,072	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QS	897,509	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Consultants	1,795,018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Professional	4,487,545	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Build Cost - BCIS Base	0	2,869,854	5,739,709	5,739,709	11,479,418	11,479,418	11,479,418	11,479,418	11,479,418	11,479,418	11,479,418	11,479,418	11,479,418	11,479,418	11,479,418	2,008,898	0	0	0	0	0	0	0	0
POTENTIAL CIL	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882									
Post CIL s106		518,000	1,036,000	1,036,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	362,600	0	0	0	0	0	0	0	0
Contingency	0	71,746	143,493	143,493	286,985	286,985	286,985	286,985	286,985	286,985	286,985	286,985	286,985	286,985	286,985	50,222	0	0	0	0	0	0	0	0
Abnormals	0	152,105	304,211	304,211	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	106,474	0	0	0	0	0	0	0	0
Finance Fees	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legal and Valuation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Agents	0	129,489	258,977	258,977	517,955	517,955	517,955	517,955	517,955	517,955	517,955	517,955	517,955	517,955	517,955	90,642	0	0	0	0	0	0	0	0
Legals	0	21,581	43,163	43,163	86,326	86,326	86,326	86,326	86,326	86,326	86,326	86,326	86,326	86,326	86,326	15,107	0	0	0	0	0	0	0	0
Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COSTS BEFORE LAND INT AND PROFIT	**27,184,829**	**3,225,895**	**6,988,671**	**6,988,671**	**14,514,224**	**14,514,224**	**14,514,224**	**14,514,224**	**14,514,224**	**14,514,224**	**14,514,224**	**14,514,224**	**14,514,224**	**14,514,224**	**14,514,224**	**2,633,943**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
For CIL calculation																								
Interest		1,767,014	1,810,994	1,821,855	1,833,421	1,773,782	1,710,267	1,642,624	1,570,583	1,493,861	1,412,151	1,325,129	1,232,452	1,133,750	1,028,633	916,683	951,083	1,012,903	1,078,742	1,148,860	1,223,536	1,303,066	1,387,765	1,477,970
Profit on cost																								36,168,732
Profit on GDV																								2,133,009
Cash Flow	-27,184,829	-676,618	-167,085	-177,945	917,516	977,155	1,040,670	1,108,313	1,180,354	1,257,077	1,338,787	1,425,808	1,518,485	1,617,187	1,722,304	-529,224	-951,083	-1,012,903	-1,078,742	-1,148,860	-1,223,536	-1,303,066	-1,387,765	-39,779,711
Opening Balanc	0																							
Closing Balanc	-27,184,829	-27,861,447	-28,028,532	-28,206,477	-27,288,961	-26,311,806	-25,271,136	-24,162,823	-22,982,469	-21,725,393	-20,386,606	-18,960,798	-17,442,313	-15,825,126	-14,102,822	-14,632,046	-15,583,129	-16,596,033	-17,674,775	-18,823,635	-20,047,171	-21,350,238	-22,738,003	-62,517,714

Base
Site 11

SITE NAME	Site 11	Site 2

INCOME	Av Size m2		%	Number		Price £/m2	GDV £	GIA m2
Market Housing	98.3		85%	845		2,300	191,068,286	83,073
Shared Ownership	68.5		10%	100		1,840	12,599,036	6,847
Affordable Rent	68.5		5%	49		1,673	5,642,279	3,373
Social Rent	68.5		0%	0		1,384	0	0
Grant and Subsidy	Shared Ownership					0	0	
	Affordable Rent					0	0	
	Social Rent					0	0	
SITE AREA - Net	28.40	ha		35	/ha		**209,309,602**	**93,293**
SITE AREA - Gross	47.32	ha		21	/ha			

Sales per Quarter	0
Unit Build Time	3 Quarters

		Whole Site	Per ha NET	Per ha GROSS
Residual Land Value		**-25,803,612**	**-908,578**	**-545,300**
Alternative Use Value		1,183,000		25,000
Uplift	0%	0		0
Plus /ha	250,000	11,830,000		250,000
Viability Threshold		**13,013,000**		**275,000**
		£/m2		
Additional Profit		**-8,053,228**		**-97**

RUN Residual MACRO ctrl+r
Closing balance = 0

RUN CIL MACRO ctrl+i
Closing balance = -69,396,700

Check on phasing dwgs nos
correct

DEVELOPMENT COSTS		/unit or m2	Total		
LAND					
	Land	-25,959		-25,803,612	
	Stamp Duty		0		
	Easements etc.		0		
	Legals Acquisition	1.50%	-387,054	-387,054	
PLANNING					
	Planning Fee		153,372		
	Architects	4.00%	7,088,588		
	QS / PM	0.50%	886,074		
	Planning Consultants	1.00%	1,772,147		
	Other Professional	2.50%	4,430,368	14,330,548	
CONSTRUCTION					
	Build Cost - BCIS Based	1,505	140,400,452		
	s106 / CIL		25,744,600		
	Contingency	2.50%	3,510,011		
	Abnormals		7,559,640	177,214,703	
FINANCE					
	Fees		0		
	Interest	6.50%			
	Legal and Valuation		0	0	
SALES					
	Agents	3.0%	6,279,288		
	Legals	0.5%	1,046,548		
	Misc.		0	7,325,836	**172,680,421**

Developers Profit				
	Market Housing	17.50%		**33,436,950**
	Affordable Housing	17.50%		**3,192,230**

36850.28196

Planning fee calc			
Planning app fe	dwgs	rate	
No dwgs	994		
No dwgs under	50	462	23,100
No dwgs over 5(	944	138	130,272
		Total	153,372

Stamp duty calc - Residual		
Land payment		-25,803,612
	Total	0

Stamp duty calc - Add Profit			
Land payment			13,013,000
125,000	0%	0%	
250,000	1%	0%	
500,000	3%	0%	
1,000,000	4%	0%	
above	5%	0%	
		Total	0

Pre CIL s106	25,900	£/ Unit (all)		
		Total		**25,744,600**
Post CIL s106	25,900	£/ Unit (all)	25,744,600	
CIL	0	£/m2	0	
		Total		**25,744,600**

Build Cost	/m2	
BCIS	1,267	
Energy	32	2.50%
Energy	0	
Design	0	
Acc & Adpt	8	
Water	0	
Small Sites	0	0%
Site Costs	198	16%
	1,505	

LIT	% GDV	
	0.00%	**0**

RESIDUAL CASH FLOW FOR INTEREST

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME																								
UNITS Started	20	40	40	80	80	80	80	80	80	80	80	80	80	80	14									
Market Housing		3,844,432	7,688,865	7,688,865	15,377,729	15,377,729	15,377,729	15,377,729	15,377,729	15,377,729	15,377,729	15,377,729	15,377,729	15,377,729	15,377,729	2,691,103	0	0	0	0	0	0	0	0
Shared Ownership		253,502	507,003	507,003	1,014,007	1,014,007	1,014,007	1,014,007	1,014,007	1,014,007	1,014,007	1,014,007	1,014,007	1,014,007	1,014,007	177,451	0	0	0	0	0	0	0	0
Affordable Rent		113,527	227,053	227,053	454,107	454,107	454,107	454,107	454,107	454,107	454,107	454,107	454,107	454,107	454,107	79,469	0	0	0	0	0	0	0	0
Social Rent		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grant and Subsidy		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INCOME	**0**	**4,211,461**	**8,422,922**	**8,422,922**	**16,845,843**	**16,845,843**	**16,845,843**	**16,845,843**	**16,845,843**	**16,845,843**	**16,845,843**	**16,845,843**	**16,845,843**	**16,845,843**	**16,845,843**	**2,948,023**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Stamp Duty	0																							
Easements etc.	0																							
Legals Acquisition	-387,054																							
Planning Fee	153,372																							
Architects	7,088,588		0																					
QS	886,074		0																					
Planning Consultants	1,772,147		0																					
Other Professional	4,430,368		0																					
Build Cost - BCIS Base		2,824,959	5,649,918	5,649,918	11,299,835	11,299,835	11,299,835	11,299,835	11,299,835	11,299,835	11,299,835	11,299,835	11,299,835	11,299,835	11,299,835	1,977,471	0	0	0	0	0	0	0	0
s106/CIL		518,000	1,036,000	1,036,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	362,600	0	0	0	0	0	0	0	0
Contingency		70,624	141,248	141,248	282,496	282,496	282,496	282,496	282,496	282,496	282,496	282,496	282,496	282,496	282,496	49,437	0	0	0	0	0	0	0	0
Abnormals		152,105	304,211	304,211	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	106,474	0	0	0	0	0	0	0	0
Finance Fees	0																							
Legal and Valuation	0																							
Agents	0	126,344	252,688	252,688	505,375	505,375	505,375	505,375	505,375	505,375	505,375	505,375	505,375	505,375	505,375	88,441	0	0	0	0	0	0	0	0
Legals	0	21,057	42,115	42,115	84,229	84,229	84,229	84,229	84,229	84,229	84,229	84,229	84,229	84,229	84,229	14,740	0	0	0	0	0	0	0	0
Misc.			0																					
COSTS BEFORE LAND INT AND PROFIT	**13,943,494**	**3,713,089**	**7,426,179**	**7,426,179**	**14,852,357**	**14,852,357**	**14,852,357**	**14,852,357**	**14,852,357**	**14,852,357**	**14,852,357**	**14,852,357**	**14,852,357**	**14,852,357**	**14,852,357**	**2,599,163**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
For Residual Valuation Land	**-25,803,612**																							
Interest		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Profit on Costs																								33,436,950
Profit on GDV																								3,192,230
Cash Flow	11,860,118	498,371	996,743	996,743	1,993,486	1,993,486	1,993,486	1,993,486	1,993,486	1,993,486	1,993,486	1,993,486	1,993,486	1,993,486	1,993,486	348,860	0	0	0	0	0	0	0	-36,629,180
Opening Balanc	0																							
Closing Balanc	11,860,118	12,358,489	13,355,232	14,351,975	16,345,461	18,338,947	20,332,433	22,325,919	24,319,405	26,312,891	28,306,377	30,299,862	32,293,348	34,286,834	36,280,320	36,629,180	36,629,180	36,629,180	36,629,180	36,629,180	36,629,180	36,629,180	36,629,180	0

CASH FLOW FOR CIL ADDITIONAL PROFIT

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME As Above																								
INCOME	**0**	**4,211,461**	**8,422,922**	**8,422,922**	**16,845,843**	**16,845,843**	**16,845,843**	**16,845,843**	**16,845,843**	**16,845,843**	**16,845,843**	**16,845,843**	**16,845,843**	**16,845,843**	**16,845,843**	**2,948,023**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Land	13,013,000																							
Stamp Duty	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Easements etc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legals Acquisition	195,195	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Fee	153,372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Architects	7,088,588	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QS	886,074	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Consultants	1,772,147	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Professional	4,430,368	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Build Cost - BCIS Base	0	2,824,959	5,649,918	5,649,918	11,299,835	11,299,835	11,299,835	11,299,835	11,299,835	11,299,835	11,299,835	11,299,835	11,299,835	11,299,835	11,299,835	1,977,471	0	0	0	0	0	0	0	0
POTENTIAL CIL	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882									
Post CIL s106		518,000	1,036,000	1,036,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	362,600	0	0	0	0	0	0	0	0
Contingency	0	70,624	141,248	141,248	282,496	282,496	282,496	282,496	282,496	282,496	282,496	282,496	282,496	282,496	282,496	49,437	0	0	0	0	0	0	0	0
Abnormals	0	152,105	304,211	304,211	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	106,474	0	0	0	0	0	0	0	0
Finance Fees	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legal and Valuation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Agents	0	126,344	252,688	252,688	505,375	505,375	505,375	505,375	505,375	505,375	505,375	505,375	505,375	505,375	505,375	88,441	0	0	0	0	0	0	0	0
Legals	0	21,057	42,115	42,115	84,229	84,229	84,229	84,229	84,229	84,229	84,229	84,229	84,229	84,229	84,229	14,740	0	0	0	0	0	0	0	0
Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COSTS BEFORE LAND INT AND PROFIT	**27,001,861**	**3,176,207**	**6,889,297**	**6,889,297**	**14,315,475**	**14,315,475**	**14,315,475**	**14,315,475**	**14,315,475**	**14,315,475**	**14,315,475**	**14,315,475**	**14,315,475**	**14,315,475**	**14,315,475**	**2,599,163**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
For CIL calculation																								
Interest		1,755,121	1,801,912	1,819,351	1,837,923	1,792,914	1,744,980	1,693,930	1,639,561	1,581,659	1,519,993	1,454,318	1,384,375	1,309,886	1,230,554	1,146,066	1,197,885	1,275,747	1,358,671	1,446,985	1,541,038	1,641,206	1,747,884	1,861,497
Profit on cost																								35,704,559
Profit on GDV																								3,192,230
Cash Flow	-27,001,861	-719,868	-268,288	-285,726	692,444	737,453	785,388	836,438	890,807	948,709	1,010,375	1,076,049	1,145,993	1,220,482	1,299,814	-797,206	-1,197,885	-1,275,747	-1,358,671	-1,446,985	-1,541,038	-1,641,206	-1,747,884	-40,758,287
Opening Balanc	0																							
Closing Balanc	-27,001,861	-27,721,729	-27,990,017	-28,275,743	-27,583,298	-26,845,845	-26,060,457	-25,224,019	-24,333,212	-23,384,503	-22,374,128	-21,298,079	-20,152,086	-18,931,604	-17,631,791	-18,428,997	-19,626,882	-20,902,629	-22,261,300	-23,708,285	-25,249,323	-26,890,529	-28,638,413	-69,396,700

Base
Site 12

SITE NAME	Site 12	Site 2

INCOME	Av Size m2		%	Number		Price £/m2	GDV £	GIA m2
Market Housing	98.5		80%	795		2,300	180,073,190	78,293
Shared Ownership	68.8		13%	133		1,840	16,872,386	9,170
Affordable Rent	68.8		7%	66		1,673	7,556,031	4,516
Social Rent	68.8		0%	0		1,384	0	0
Grant and Subsidy	Shared Ownership					0	0	
	Affordable Rent					0	0	
	Social Rent					0	0	
SITE AREA - Net	28.40	ha		35	/ha		**204,501,607**	**91,979**
SITE AREA - Gross	47.32	ha		21	/ha			

Sales per Quarter	0	
Unit Build Time	3	Quarters

		Whole Site	Per ha NET	Per ha GROSS
Residual Land Value		-27,482,563	-967,696	-580,781
Alternative Use Value		1,183,000		25,000
Uplift	0%	0		0
Plus /ha	250,000	11,830,000		250,000
Viability Threshold		**13,013,000**		**275,000**
		£/m2		
Additional Profit		-8,053,228		-103

RUN Residual MACRO ctrl+r
Closing balance = 0

RUN CIL MACRO ctrl+i
Closing balance = -76,383,095

Check on phasing dwgs nos
correct

DEVELOPMENT COSTS		/unit or m2	Total		
LAND					
	Land	-27,648		-27,482,563	
	Stamp Duty		0		
	Easements etc.		0		
	Legals Acquisition	1.50%	-412,238	-412,238	
PLANNING					
	Planning Fee		153,372		
	Architects	4.00%	7,011,026		
	QS / PM	0.50%	876,378		
	Planning Consultants	1.00%	1,752,756		
	Other Professional	2.50%	4,381,891	14,175,424	
CONSTRUCTION					
	Build Cost - BCIS Based	1,506	138,508,690		
	s106 / CIL		25,744,600		
	Contingency	2.50%	3,462,717		
	Abnormals		7,559,640	175,275,647	
FINANCE					
	Fees		0		
	Interest	6.50%			
	Legal and Valuation		0	0	
SALES					
	Agents	3.0%	6,135,048		
	Legals	0.5%	1,022,508		
	Misc.		0	7,157,556	**168,713,826**
Developers Profit					
	Market Housing	17.50%			**31,512,808**
	Affordable Housing	17.50%			**4,274,973**

36003.80408

Planning fee calc			
Planning app fe	dwgs	rate	
No dwgs	994		
No dwgs under	50	462	23,100
No dwgs over 5(	944	138	130,272
		Total	153,372

Stamp duty calc - Residual	
Land payment	-27,482,563
Total	0

Stamp duty calc - Add Profit			
Land payment			13,013,000
125,000	0%	0%	
250,000	1%	0%	
500,000	3%	0%	
1,000,000	4%	0%	
above	5%	0%	
		Total	0

Pre CIL s106	25,900	£/ Unit (all)	
		Total	**25,744,600**

Post CIL s106	25,900	£/ Unit (all)	25,744,600
CIL	0	£/m2	0
		Total	**25,744,600**

Build Cost	/m2	
BCIS	1,268	
Energy	32	2.50%
Energy	0	
Design	0	
Acc & Adpt	8	
Water	0	
Small Sites	0	0%
Site Costs	199	16%
	1,506	

LIT	% GDV
	0.00% **0**

RESIDUAL CASH FLOW FOR INTEREST

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME																								
UNITS Started	20	40	40	80	80	80	80	80	80	80	80	80	80	80	14									
Market Housing		3,623,203	7,246,406	7,246,406	14,492,812	14,492,812	14,492,812	14,492,812	14,492,812	14,492,812	14,492,812	14,492,812	14,492,812	14,492,812	14,492,812	2,536,242	0	0	0	0	0	0	0	0
Shared Ownership		339,485	678,969	678,969	1,357,938	1,357,938	1,357,938	1,357,938	1,357,938	1,357,938	1,357,938	1,357,938	1,357,938	1,357,938	1,357,938	237,639	0	0	0	0	0	0	0	0
Affordable Rent		152,033	304,066	304,066	608,131	608,131	608,131	608,131	608,131	608,131	608,131	608,131	608,131	608,131	608,131	106,423	0	0	0	0	0	0	0	0
Social Rent		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grant and Subsidy		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INCOME	**0**	**4,114,720**	**8,229,441**	**8,229,441**	**16,458,882**	**16,458,882**	**16,458,882**	**16,458,882**	**16,458,882**	**16,458,882**	**16,458,882**	**16,458,882**	**16,458,882**	**16,458,882**	**16,458,882**	**2,880,304**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Stamp Duty	0																							
Easements etc.	0																							
Legals Acquisition	-412,238																							
Planning Fee	153,372																							
Architects	7,011,026		0																					
QS	876,378		0																					
Planning Consultants	1,752,756		0																					
Other Professional	4,381,891		0																					
Build Cost - BCIS Base		2,786,895	5,573,790	5,573,790	11,147,581	11,147,581	11,147,581	11,147,581	11,147,581	11,147,581	11,147,581	11,147,581	11,147,581	11,147,581	11,147,581	1,950,827	0	0	0	0	0	0	0	0
s106/CIL		518,000	1,036,000	1,036,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	362,600	0	0	0	0	0	0	0	0
Contingency		69,672	139,345	139,345	278,690	278,690	278,690	278,690	278,690	278,690	278,690	278,690	278,690	278,690	278,690	48,771	0	0	0	0	0	0	0	0
Abnormals		152,105	304,211	304,211	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	106,474	0	0	0	0	0	0	0	0
Finance Fees	0																							
Legal and Valuation	0																							
Agents	0	123,442	246,883	246,883	493,766	493,766	493,766	493,766	493,766	493,766	493,766	493,766	493,766	493,766	493,766	86,409	0	0	0	0	0	0	0	0
Legals	0	20,574	41,147	41,147	82,294	82,294	82,294	82,294	82,294	82,294	82,294	82,294	82,294	82,294	82,294	14,402	0	0	0	0	0	0	0	0
Misc.			0																					
COSTS BEFORE LAND INT AND PROFIT	**13,763,185**	**3,670,688**	**7,341,376**	**7,341,376**	**14,682,753**	**14,682,753**	**14,682,753**	**14,682,753**	**14,682,753**	**14,682,753**	**14,682,753**	**14,682,753**	**14,682,753**	**14,682,753**	**14,682,753**	**2,569,482**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
For Residual Valuation Land	-27,482,563																							
Interest		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Profit on Costs																								31,512,808
Profit on GDV																								4,274,973
Cash Flow	13,719,377	444,032	888,065	888,065	1,776,129	1,776,129	1,776,129	1,776,129	1,776,129	1,776,129	1,776,129	1,776,129	1,776,129	1,776,129	1,776,129	310,823	0	0	0	0	0	0	0	-35,787,781
Opening Balanc	0																							
Closing Balanc	13,719,377	14,163,410	15,051,474	15,939,539	17,715,668	19,491,797	21,267,926	23,044,055	24,820,184	26,596,313	28,372,442	30,148,571	31,924,701	33,700,830	35,476,959	35,787,781	35,787,781	35,787,781	35,787,781	35,787,781	35,787,781	35,787,781	35,787,781	0

CASH FLOW FOR CIL ADDITIONAL PROFIT

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME As Above																								
INCOME	**0**	**4,114,720**	**8,229,441**	**8,229,441**	**16,458,882**	**16,458,882**	**16,458,882**	**16,458,882**	**16,458,882**	**16,458,882**	**16,458,882**	**16,458,882**	**16,458,882**	**16,458,882**	**16,458,882**	**2,880,304**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Land	13,013,000																							
Stamp Duty	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Easements etc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legals Acquisition	195,195	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Fee	153,372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Architects	7,011,026	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QS	876,378	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Consultants	1,752,756	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Professional	4,381,891	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Build Cost - BCIS Base	0	2,786,895	5,573,790	5,573,790	11,147,581	11,147,581	11,147,581	11,147,581	11,147,581	11,147,581	11,147,581	11,147,581	11,147,581	11,147,581	11,147,581	1,950,827	0	0	0	0	0	0	0	0
POTENTIAL CIL	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882									
Post CIL s106		518,000	1,036,000	1,036,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	362,600	0	0	0	0	0	0	0	0
Contingency	0	69,672	139,345	139,345	278,690	278,690	278,690	278,690	278,690	278,690	278,690	278,690	278,690	278,690	278,690	48,771	0	0	0	0	0	0	0	0
Abnormals	0	152,105	304,211	304,211	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	106,474	0	0	0	0	0	0	0	0
Finance Fees	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legal and Valuation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Agents	0	123,442	246,883	246,883	493,766	493,766	493,766	493,766	493,766	493,766	493,766	493,766	493,766	493,766	493,766	86,409	0	0	0	0	0	0	0	0
Legals	0	20,574	41,147	41,147	82,294	82,294	82,294	82,294	82,294	82,294	82,294	82,294	82,294	82,294	82,294	14,402	0	0	0	0	0	0	0	0
Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COSTS BEFORE LAND INT AND PROFIT	**26,846,737**	**3,133,806**	**6,804,495**	**6,804,495**	**14,145,871**	**14,145,871**	**14,145,871**	**14,145,871**	**14,145,871**	**14,145,871**	**14,145,871**	**14,145,871**	**14,145,871**	**14,145,871**	**14,145,871**	**2,569,482**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
For CIL calculation																								
Interest		1,745,038	1,794,706	1,818,740	1,844,337	1,813,873	1,781,429	1,746,876	1,710,078	1,670,887	1,629,149	1,584,698	1,537,357	1,486,940	1,433,245	1,376,061	1,445,301	1,539,246	1,639,297	1,745,851	1,859,331	1,980,188	2,108,900	2,245,978
Profit on cost																								35,308,629
Profit on GDV																								4,274,973
Cash Flow	-26,846,737	-764,124	-369,760	-393,794	468,674	499,138	531,582	566,135	602,933	642,124	683,862	728,313	775,653	826,071	879,766	-1,065,238	-1,445,301	-1,539,246	-1,639,297	-1,745,851	-1,859,331	-1,980,188	-2,108,900	-41,829,580
Opening Balanc	0																							
Closing Balanc	-26,846,737	-27,610,861	-27,980,620	-28,374,414	-27,905,740	-27,406,602	-26,875,020	-26,308,886	-25,705,952	-25,063,828	-24,379,966	-23,651,653	-22,876,000	-22,049,929	-21,170,163	-22,235,401	-23,680,702	-25,219,948	-26,859,244	-28,605,095	-30,464,427	-32,444,614	-34,553,514	-76,383,095

Base
Site 13

SITE NAME	Site 13	Site 2

INCOME	Av Size m2		%	Number		Price £/m2	GDV £	GIA m2
Market Housing	98.4		75%	746		2,300	168,667,776	73,334
Shared Ownership	68.7		17%	166		1,840	21,052,971	11,442
Affordable Rent	68.7		8%	82		1,673	9,428,240	5,636
Social Rent	68.7		0%	0		1,384	0	0
Grant and Subsidy	Shared Ownership					0	0	
	Affordable Rent					0	0	
	Social Rent					0	0	
SITE AREA - Net	28.40	ha		35	/ha		**199,148,987**	**90,411**
SITE AREA - Gross	47.32	ha		21	/ha			

Sales per Quarter	0	
Unit Build Time	3	Quarters

		Whole Site	Per ha NET	Per ha GROSS
Residual Land Value		**-29,130,592**	**-1,025,725**	**-615,608**
Alternative Use Value		1,183,000		25,000
Uplift	0%	0		0
Plus /ha	250,000	11,830,000		250,000
Viability Threshold		**13,013,000**		**275,000**
		£/m2		
Additional Profit		**-8,053,228**		**-110**

RUN Residual MACRO ctrl+r
Closing balance = 0

RUN CIL MACRO ctrl+i
Closing balance = -83,369,177

Check on phasing dwgs nos
correct

DEVELOPMENT COSTS			/unit or m2	Total	
LAND		Land	-29,306		-29,130,592
		Stamp Duty		0	
		Easements etc.		0	
		Legals Acquisition	1.50%	-436,959	-436,959
PLANNING					
		Planning Fee		153,372	
		Architects	4.00%	6,916,366	
		QS / PM	0.50%	864,546	
		Planning Consultants	1.00%	1,729,091	
		Other Professional	2.50%	4,322,729	13,986,104
CONSTRUCTION					
		Build Cost - BCIS Based	1,506	136,199,909	
		s106 / CIL		25,744,600	
		Contingency	2.50%	3,404,998	
		Abnormals		7,559,640	172,909,147
FINANCE					
		Fees		0	
		Interest	6.50%		
		Legal and Valuation		0	0
SALES					
		Agents	3.0%	5,974,470	
		Legals	0.5%	995,745	
		Misc.		0	6,970,215 **164,297,914**
Developers Profit					
		Market Housing	17.50%		**29,516,861**
		Affordable Housing	17.50%		**5,334,212** 35061.44133

Planning fee calc			
Planning app fe	dwgs	rate	
No dwgs	994		
No dwgs under	50	462	23,100
No dwgs over 5(	944	138	130,272
		Total	153,372

Stamp duty calc - Residual	
Land payment	-29,130,592
Total	0

Stamp duty calc - Add Profit			
Land payment			13,013,000
125,000	0%	0%	
250,000	1%	0%	
500,000	3%	0%	
1,000,000	4%	0%	
above	5%	0%	
		Total	0

Pre CIL s106	25,900	£/ Unit (all)	
		Total	**25,744,600**

Post CIL s106	25,900	£/ Unit (all)	25,744,600
CIL	0	£/m2	0
		Total	**25,744,600**

Build Cost	/m2	
BCIS	1,268	
Energy	32	2.50%
Energy	0	
Design	0	
Acc & Adpt	8	
Water	0	
Small Sites	0	0%
Site Costs	199	16%
	1,506	

LIT	% GDV	
	0.00%	**0**

RESIDUAL CASH FLOW FOR INTEREST

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME																								
UNITS Started	20	40	40	80	80	80	80	80	80	80	80	80	80	80	14									
Market Housing		3,393,718	6,787,436	6,787,436	13,574,871	13,574,871	13,574,871	13,574,871	13,574,871	13,574,871	13,574,871	13,574,871	13,574,871	13,574,871	13,574,871	2,375,602	0	0	0	0	0	0	0	0
Shared Ownership		423,601	847,202	847,202	1,694,404	1,694,404	1,694,404	1,694,404	1,694,404	1,694,404	1,694,404	1,694,404	1,694,404	1,694,404	1,694,404	296,521	0	0	0	0	0	0	0	0
Affordable Rent		189,703	379,406	379,406	758,812	758,812	758,812	758,812	758,812	758,812	758,812	758,812	758,812	758,812	758,812	132,792	0	0	0	0	0	0	0	0
Social Rent		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grant and Subsidy		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INCOME	**0**	**4,007,022**	**8,014,044**	**8,014,044**	**16,028,087**	**16,028,087**	**16,028,087**	**16,028,087**	**16,028,087**	**16,028,087**	**16,028,087**	**16,028,087**	**16,028,087**	**16,028,087**	**16,028,087**	**2,804,915**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Stamp Duty	0																							
Easements etc.	0																							
Legals Acquisition	-436,959																							
Planning Fee	153,372																							
Architects	6,916,366		0																					
QS	864,546		0																					
Planning Consultants	1,729,091		0																					
Other Professional	4,322,729		0																					
Build Cost - BCIS Base		2,740,441	5,480,882	5,480,882	10,961,763	10,961,763	10,961,763	10,961,763	10,961,763	10,961,763	10,961,763	10,961,763	10,961,763	10,961,763	10,961,763	1,918,309	0	0	0	0	0	0	0	0
s106/CIL		518,000	1,036,000	1,036,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	362,600	0	0	0	0	0	0	0	0
Contingency		68,511	137,022	137,022	274,044	274,044	274,044	274,044	274,044	274,044	274,044	274,044	274,044	274,044	274,044	47,958	0	0	0	0	0	0	0	0
Abnormals		152,105	304,211	304,211	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	106,474	0	0	0	0	0	0	0	0
Finance Fees	0																							
Legal and Valuation	0																							
Agents	0	120,211	240,421	240,421	480,843	480,843	480,843	480,843	480,843	480,843	480,843	480,843	480,843	480,843	480,843	84,147	0	0	0	0	0	0	0	0
Legals	0	20,035	40,070	40,070	80,140	80,140	80,140	80,140	80,140	80,140	80,140	80,140	80,140	80,140	80,140	14,025	0	0	0	0	0	0	0	0
Misc.			0																					
COSTS BEFORE LAND INT AND PROFIT	**13,549,145**	**3,619,303**	**7,238,606**	**7,238,606**	**14,477,212**	**14,477,212**	**14,477,212**	**14,477,212**	**14,477,212**	**14,477,212**	**14,477,212**	**14,477,212**	**14,477,212**	**14,477,212**	**14,477,212**	**2,533,512**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
For Residual Valuation Land	-29,130,592																							
Interest		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Profit on Costs																								29,516,861
Profit on GDV																								5,334,212
Cash Flow	15,581,447	387,719	775,438	775,438	1,550,875	1,550,875	1,550,875	1,550,875	1,550,875	1,550,875	1,550,875	1,550,875	1,550,875	1,550,875	1,550,875	271,403	0	0	0	0	0	0	0	-34,851,073
Opening Balanc	0																							
Closing Balanc	15,581,447	15,969,166	16,744,604	17,520,041	19,070,917	20,621,792	22,172,667	23,723,543	25,274,418	26,825,293	28,376,168	29,927,044	31,477,919	33,028,794	34,579,670	34,851,073	34,851,073	34,851,073	34,851,073	34,851,073	34,851,073	34,851,073	34,851,073	0

CASH FLOW FOR CIL ADDITIONAL PROFIT

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME As Above																								
INCOME	**0**	**4,007,022**	**8,014,044**	**8,014,044**	**16,028,087**	**16,028,087**	**16,028,087**	**16,028,087**	**16,028,087**	**16,028,087**	**16,028,087**	**16,028,087**	**16,028,087**	**16,028,087**	**16,028,087**	**2,804,915**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Land	13,013,000																							
Stamp Duty	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Easements etc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legals Acquisition	195,195	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Fee	153,372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Architects	6,916,366	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QS	864,546	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Consultants	1,729,091	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Professional	4,322,729	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Build Cost - BCIS Base	0	2,740,441	5,480,882	5,480,882	10,961,763	10,961,763	10,961,763	10,961,763	10,961,763	10,961,763	10,961,763	10,961,763	10,961,763	10,961,763	10,961,763	1,918,309	0	0	0	0	0	0	0	0
POTENTIAL CIL	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882									
Post CIL s106		518,000	1,036,000	1,036,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	362,600	0	0	0	0	0	0	0	0
Contingency	0	68,511	137,022	137,022	274,044	274,044	274,044	274,044	274,044	274,044	274,044	274,044	274,044	274,044	274,044	47,958	0	0	0	0	0	0	0	0
Abnormals	0	152,105	304,211	304,211	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	106,474	0	0	0	0	0	0	0	0
Finance Fees	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legal and Valuation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Agents	0	120,211	240,421	240,421	480,843	480,843	480,843	480,843	480,843	480,843	480,843	480,843	480,843	480,843	480,843	84,147	0	0	0	0	0	0	0	0
Legals	0	20,035	40,070	40,070	80,140	80,140	80,140	80,140	80,140	80,140	80,140	80,140	80,140	80,140	80,140	14,025	0	0	0	0	0	0	0	0
Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COSTS BEFORE LAND INT AND PROFIT	**26,657,417**	**3,082,421**	**6,701,724**	**6,701,724**	**13,940,330**	**13,940,330**	**13,940,330**	**13,940,330**	**13,940,330**	**13,940,330**	**13,940,330**	**13,940,330**	**13,940,330**	**13,940,330**	**13,940,330**	**2,533,512**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
For CIL calculation																								
Interest		1,732,732	1,785,261	1,816,002	1,848,741	1,833,205	1,816,659	1,799,038	1,780,271	1,760,285	1,738,999	1,716,330	1,692,187	1,666,475	1,639,091	1,609,928	1,696,932	1,807,233	1,924,703	2,049,809	2,183,046	2,324,944	2,476,065	2,637,010
Profit on cost																								34,828,576
Profit on GDV																								5,334,212
Cash Flow	-26,657,417	-808,131	-472,941	-503,682	239,016	254,552	271,098	288,719	307,486	327,473	348,758	371,428	395,570	421,282	448,666	-1,338,525	-1,696,932	-1,807,233	-1,924,703	-2,049,809	-2,183,046	-2,324,944	-2,476,065	-42,799,797
Opening Balanc	0																							
Closing Balanc	-26,657,417	-27,465,548	-27,938,489	-28,442,172	-28,203,156	-27,948,604	-27,677,506	-27,388,787	-27,081,301	-26,753,828	-26,405,070	-26,033,642	-25,638,072	-25,216,789	-24,768,123	-26,106,648	-27,803,580	-29,610,813	-31,535,516	-33,585,324	-35,768,370	-38,093,314	-40,569,380	-83,369,177

Base
Site 14

SITE NAME	Site 14	Site 2

INCOME		Av Size m2		%	Number		Price £/m2	GDV £	GIA m2
Market Housing		98.4		70%	696		2,300	157,465,638	68,463
Shared Ownership		68.9		20%	200		1,840	25,326,370	13,764
Affordable Rent		68.9		10%	98		1,673	11,342,015	6,779
Social Rent		68.9		0%	0		1,384	0	0
Grant and Subsidy	Shared Ownership						0	0	
	Affordable Rent						0	0	
	Social Rent						0	0	
SITE AREA - Net		28.40	ha		35	/ha		**194,134,023**	**89,007**
SITE AREA - Gross		47.32	ha		21	/ha			

Sales per Quarter	0	
Unit Build Time	3	Quarters

	Whole Site	Per ha NET	Per ha GROSS
Residual Land Value	**-30,814,814**	**-1,085,029**	**-651,201**
Alternative Use Value	1,183,000		25,000
Uplift 0%	0		0
Plus /ha 250,000	11,830,000		250,000
Viability Threshold	**13,013,000**		**275,000**
	£/m2		
Additional Profit	**-8,053,228**	**-118**	

RUN Residual MACRO ctrl+r
Closing balance = 0

RUN CIL MACRO ctrl+i
Closing balance = -90,414,094

Check on phasing dwgs nos
correct

DEVELOPMENT COSTS			/unit or m2	Total	
LAND					
	Land		-31,001		-30,814,814
	Stamp Duty			0	
	Easements etc.			0	
	Legals Acquisition		1.50%	-462,222	-462,222
PLANNING					
	Planning Fee			153,372	
	Architects		4.00%	6,832,946	
	QS / PM		0.50%	854,118	
	Planning Consultants		1.00%	1,708,237	
	Other Professional		2.50%	4,270,591	13,819,264
CONSTRUCTION					
	Build Cost - BCIS Based		1,507	134,165,278	
	s106 / CIL			25,744,600	
	Contingency		2.50%	3,354,132	
	Abnormals			7,559,640	170,823,650
FINANCE					
	Fees			0	
	Interest		6.50%		
	Legal and Valuation			0	0
SALES					
	Agents		3.0%	5,824,021	
	Legals		0.5%	970,670	
	Misc.			0	6,794,691 **160,160,569**

Developers Profit			
	Market Housing	17.50%	**27,556,487**
	Affordable Housing	17.50%	**6,416,967**

Planning fee calc			
Planning app fe	dwgs	rate	
No dwgs	994		
No dwgs under	50	462	23,100
No dwgs over 5(	944	138	130,272
		Total	153,372

Stamp duty calc - Residual		
Land payment		-30,814,814
	Total	0

Stamp duty calc - Add Profit			
Land payment			13,013,000
125,000	0%	0%	
250,000	1%	0%	
500,000	3%	0%	
1,000,000	4%	0%	
above	5%	0%	
		Total	0

Pre CIL s106	25,900	£/ Unit (all)	
		Total	**25,744,600**
Post CIL s106	25,900	£/ Unit (all)	25,744,600
CIL	0	£/m2	0
		Total	**25,744,600**

Build Cost	/m2	
BCIS	1,269	
Energy	32	2.50%
Energy	0	
Design	0	
Acc & Adpt	8	
Water	0	
Small Sites	0	0%
Site Costs	199	16%
	1,507	

LIT	% GDV	
	0.00%	**0**

RESIDUAL CASH FLOW FOR INTEREST

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME																								
UNITS Started	20	40	40	80	80	80	80	80	80	80	80	80	80	80	14									
Market Housing		3,168,323	6,336,645	6,336,645	12,673,291	12,673,291	12,673,291	12,673,291	12,673,291	12,673,291	12,673,291	12,673,291	12,673,291	12,673,291	12,673,291	2,217,826	0	0	0	0	0	0	0	0
Shared Ownership		509,585	1,019,170	1,019,170	2,038,340	2,038,340	2,038,340	2,038,340	2,038,340	2,038,340	2,038,340	2,038,340	2,038,340	2,038,340	2,038,340	356,709	0	0	0	0	0	0	0	0
Affordable Rent		228,210	456,419	456,419	912,838	912,838	912,838	912,838	912,838	912,838	912,838	912,838	912,838	912,838	912,838	159,747	0	0	0	0	0	0	0	0
Social Rent		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grant and Subsidy		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INCOME	**0**	**3,906,117**	**7,812,234**	**7,812,234**	**15,624,469**	**15,624,469**	**15,624,469**	**15,624,469**	**15,624,469**	**15,624,469**	**15,624,469**	**15,624,469**	**15,624,469**	**15,624,469**	**15,624,469**	**2,734,282**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Stamp Duty	0																							
Easements etc.	0																							
Legals Acquisition	-462,222																							
Planning Fee	153,372																							
Architects	6,832,946		0																					
QS	854,118		0																					
Planning Consultants	1,708,237		0																					
Other Professional	4,270,591		0																					
Build Cost - BCIS Base		2,699,503	5,399,005	5,399,005	10,798,010	10,798,010	10,798,010	10,798,010	10,798,010	10,798,010	10,798,010	10,798,010	10,798,010	10,798,010	10,798,010	1,889,652	0	0	0	0	0	0	0	0
s106/CIL		518,000	1,036,000	1,036,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	362,600	0	0	0	0	0	0	0	0
Contingency		67,488	134,975	134,975	269,950	269,950	269,950	269,950	269,950	269,950	269,950	269,950	269,950	269,950	269,950	47,241	0	0	0	0	0	0	0	0
Abnormals		152,105	304,211	304,211	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	106,474	0	0	0	0	0	0	0	0
Finance Fees	0																							
Legal and Valuation	0																							
Agents	0	117,184	234,367	234,367	468,734	468,734	468,734	468,734	468,734	468,734	468,734	468,734	468,734	468,734	468,734	82,028	0	0	0	0	0	0	0	0
Legals	0	19,531	39,061	39,061	78,122	78,122	78,122	78,122	78,122	78,122	78,122	78,122	78,122	78,122	78,122	13,671	0	0	0	0	0	0	0	0
Misc.			0																					
COSTS BEFORE LAND INT AND PROFIT	**13,357,042**	**3,573,810**	**7,147,619**	**7,147,619**	**14,295,239**	**14,295,239**	**14,295,239**	**14,295,239**	**14,295,239**	**14,295,239**	**14,295,239**	**14,295,239**	**14,295,239**	**14,295,239**	**14,295,239**	**2,501,667**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
For Residual Valuation Land	-30,814,814																							
Interest		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Profit on Costs																								27,556,487
Profit on GDV																								6,416,967
Cash Flow	17,457,772	332,307	664,615	664,615	1,329,230	1,329,230	1,329,230	1,329,230	1,329,230	1,329,230	1,329,230	1,329,230	1,329,230	1,329,230	1,329,230	232,615	0	0	0	0	0	0	0	-33,973,454
Opening Balanc	0																							
Closing Balanc	17,457,772	17,790,079	18,454,694	19,119,309	20,448,539	21,777,769	23,106,999	24,436,229	25,765,459	27,094,689	28,423,919	29,753,149	31,082,379	32,411,609	33,740,839	33,973,454	33,973,454	33,973,454	33,973,454	33,973,454	33,973,454	33,973,454	33,973,454	0

CASH FLOW FOR CIL ADDITIONAL PROFIT

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24
INCOME As Above																								
INCOME	**0**	**3,906,117**	**7,812,234**	**7,812,234**	**15,624,469**	**15,624,469**	**15,624,469**	**15,624,469**	**15,624,469**	**15,624,469**	**15,624,469**	**15,624,469**	**15,624,469**	**15,624,469**	**15,624,469**	**2,734,282**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
EXPENDITURE																								
Land	13,013,000																							
Stamp Duty	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Easements etc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legals Acquisition	195,195	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Fee	153,372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Architects	6,832,946	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QS	854,118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Consultants	1,708,237	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Professional	4,270,591	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Build Cost - BCIS Base	0	2,699,503	5,399,005	5,399,005	10,798,010	10,798,010	10,798,010	10,798,010	10,798,010	10,798,010	10,798,010	10,798,010	10,798,010	10,798,010	10,798,010	1,889,652	0	0	0	0	0	0	0	0
POTENTIAL CIL	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882	-536,882									
Post CIL s106		518,000	1,036,000	1,036,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	2,072,000	362,600	0	0	0	0	0	0	0	0
Contingency	0	67,488	134,975	134,975	269,950	269,950	269,950	269,950	269,950	269,950	269,950	269,950	269,950	269,950	269,950	47,241	0	0	0	0	0	0	0	0
Abnormals	0	152,105	304,211	304,211	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	608,422	106,474	0	0	0	0	0	0	0	0
Finance Fees	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Legal and Valuation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Agents	0	117,184	234,367	234,367	468,734	468,734	468,734	468,734	468,734	468,734	468,734	468,734	468,734	468,734	468,734	82,028	0	0	0	0	0	0	0	0
Legals	0	19,531	39,061	39,061	78,122	78,122	78,122	78,122	78,122	78,122	78,122	78,122	78,122	78,122	78,122	13,671	0	0	0	0	0	0	0	0
Misc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COSTS BEFORE LAND INT AND PROFIT	**26,490,577**	**3,036,928**	**6,610,737**	**6,610,737**	**13,758,357**	**13,758,357**	**13,758,357**	**13,758,357**	**13,758,357**	**13,758,357**	**13,758,357**	**13,758,357**	**13,758,357**	**13,758,357**	**13,758,357**	**2,501,667**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
For CIL calculation																								
Interest		1,721,888	1,777,313	1,814,741	1,854,602	1,853,854	1,853,057	1,852,208	1,851,305	1,850,342	1,849,317	1,848,225	1,847,063	1,845,825	1,844,506	1,843,102	1,947,783	2,074,389	2,209,224	2,352,824	2,505,757	2,668,632	2,842,093	3,026,829
Profit on cost																								34,403,700
Profit on GDV																								6,416,967
Cash Flow	-26,490,577	-852,698	-575,816	-613,244	11,510	12,258	13,055	13,904	14,807	15,770	16,795	17,886	19,049	20,287	21,606	-1,610,486	-1,947,783	-2,074,389	-2,209,224	-2,352,824	-2,505,757	-2,668,632	-2,842,093	-43,847,496
Opening Balanc	0																							
Closing Balanc	-26,490,577	-27,343,275	-27,919,091	-28,532,335	-28,520,825	-28,508,567	-28,495,512	-28,481,609	-28,466,802	-28,451,032	-28,434,237	-28,416,351	-28,397,302	-28,377,014	-28,355,408	-29,965,895	-31,913,678	-33,988,067	-36,197,291	-38,550,115	-41,055,873	-43,724,505	-46,566,597	-90,414,094

HDH Planning and Development Ltd is a specialist planning consultancy providing evidence to support planning authorities, land owners and developers. The firm is regulated by the RICS.
The main areas of expertise are:

- Community Infrastructure Levy (CIL)
- District wide and site specific Viability Analysis
- Local and Strategic Housing Market Assessments and Housing Needs Assessments

HDH Planning and Development have clients throughout England and Wales.

HDH Planning and Development Ltd
Registered in England Company Number 08555548
Clapham Woods Farm, Keasden, Nr Clapham, Lancaster. LA2 8ET
simon@hdhplanning.co.uk 015242 51831 / 07989 975 977

Planning & Development

Appendix E Delivery Mechanisms Paper (Hyas Associates, 2020)

October 2020

Hyas

Ashfield New Settlements Study

Delivery Mechanisms Supporting Paper

Draft

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1. Introduction & Purpose of Report

1.1 AECOM, HDH Planning & Development and Hyas Associates Ltd were commissioned in May 2020 to undertake a study to assess the suitability, availability and achievability of two potential new settlement options for the emerging Ashfield Local Plan. The two potential new settlement options were identified by Ashfield District Council as being reasonable site options for testing during the plan-making process. The sites, which have been identified by Ashfield District Council are Site 1: Kirkby Lane/Pinxton Lane, Kirkby-in-Ashfield and Site 2: Cauldwell Road/Derby Road, Sutton in Ashfield (Site 2).

1.2 The purpose of this 'Ashfield New Settlements Study' was to understand if the two potential new settlement options identified by the Council were realistic prospects for potential inclusion the new Local Plan, and to understand the contribution that they could make towards meeting the residual housing requirement.

1.3 AECOM have considered the two sites in some detail based on site visits and desk-based review by specialists across a number of disciplines including drainage, economics, ground conditions, heritage, landscape, town planning, light, transport, social infrastructure and utilities. They have also been informed by inputs from a range of stakeholders, including statutory consultees and service providers. HDH have undertaken initial viability studies based upon various assumptions and potential scenarios.

1.4 A further part of the Study undertaken by Hyas Associates and the subject of this Supporting Paper involves considering how new settlements in the District could be delivered and reviewing a range of potential mechanisms. This should consider the various stakeholders involved, different models of land promotion and development, available funding streams and the potential role of the public and private sectors.

1.5 This report provides consideration of the following:

- An introduction to the various key stakeholders involved in delivery, their key drivers and influences.
- An overview of approaches to the delivery of new settlements, and a summary of key pros and cons of alternative approaches.
- The potential key issues and implications were ADC to consider taking a more active role in the delivery of potential new settlements in the District.
- An overall 'routemap' to set out some potential next steps.

1.6 The information as set out in this paper should be read in combination with the Ashfield New Settlements Study and Viability Study. The documents are all closely related, and when read together aim to provide strong basis to consider the new settlement proposals.

2. Key Stakeholders & Roles

2.1 A number of different stakeholders will be involved in the process of delivering any new settlement. It is important to understand the various roles, drivers and key influences on each of these in order to then consider how such projects may or should come forward.

Landowners

2.2 Landowners (in particular for the larger more strategic sites) are generally relatively passive in the planning and development process. These tend to either be approached by developers/promoters or advised by agents to take their land to the market, often in response to Local Plan making processes such as a 'call for sites'.

2.3 Unless they have had direct experience of land disposal for development activity, landowners tend to be asset rich but cash poor. They will generally not have the expertise or resources to undertake the work required to obtain the appropriate planning consents and move on to construction.

2.4 Landowners will therefore at an appropriate stage seek to secure agreements with another commercial party through some form of legal agreement – for example through the use of either option or promotion agreements relating to all/part of their land holdings. This other party would then take responsibility for and resource the process of obtaining planning consent.

2.5 Some landowners, in particular large estates with strong ties to specific areas may wish to retain an active role in the promotion and development of their land, whether with a legacy interest to ensure this occurs to their expectations, and/or potential active delivery or ultimate occupier interest. Or they may just have a keen interest in certain aspects such as to deliver environmentally sustainable development, protect certain features/local heritage or promote a certain typology of development.

2.6 Landowners will have a range of influences and motivations on why they may be willing to promote their land for development. This will include the role that the land (and its productive use) has on the landowners lifestyle/position, the desire and ability to continue similar activity should the asset be sold, legal and tax implications of any potential transaction. Such matters will influence the return they will expect to see in return for signing up to an agreement with a developer (or other entity).

2.7 The most common approach would for a landowner (or group of landowners) to enter into an option agreement, where a developer is granted the option to buy the land if a suitable milestone (for example securing planning permission) is reached. Developers are attracted to option agreements as they gain priority rights to buy a piece of land ahead of their competition and without needing to pay the full price for it until such time as planning is obtained.

2.8 The main advantage for a landowner is the benefit of having an independent third party bearing all of the risks and costs of obtaining planning permission. Conversely

they will be tied to the agreement for the duration of the option agreement (which could be 5 or 10 years – perhaps even longer, depending on the term negotiated) thereby preventing the landowner from freely selling the land to a third party.

2.9 The ultimate value of the land is unlikely to be clear when the initial agreement is signed, as market conditions, scheme requirements, costs and values will change over time. The standard approach is to define the process to set an appropriate value, together with guaranteeing a minimum price and provisions regarding overage. As an incentive, the agreement often includes an initial upfront payment to the landowner. Such approaches provide some protection to the landowner that they will receive an initial payment, a defined minimum price (which will be a multiple of the current use value), with the scope for any further uplifts to be shared between the developer and landowner.

2.10 Option agreements can include 'no-compete' clauses that could limit the activity that the option holder could undertake, for example to restrict other similar planning promotion type work within a particular geographic or Council area. However large volume housebuilders will often have regional divisions and related targets and so will need to deliver on more than one site within any given area simultaneously.

2.11 As an alternative, a promotion agreement could be entered into. This is similar to an option agreement, although here the landowner and the promoter (who will not necessarily be a developer) work more actively and collaboratively to 'promote' the land for development. In practical terms, this means the promoter taking similar steps to a developer to assess the suitability of the site, secure the allocation of the land for development and then obtain planning permission before then directing the landowner to sell the site. The overall sale proceeds would be split between the landowner and promoter and agreed by negotiation.

2.12 Promotion Agreements may include a greater sharing of risk with a landowner which is balanced by the opportunity to secure the best price possible for the land because it is sold on the open market and subject to a competitive bid process. The competitive nature of a Promotion Agreement can therefore be attractive to a landowner. Similar to the constraints of option agreements, landowners may also be unable to sell the land during the term of the promotion agreement and should also be aware of any potential tax consequences which arise from the resulting 'partnership' which the agreement creates.

2.13 There is a difference is the extent to which the landowner is actively involved in the promotion process. Under an option agreement, this is largely left to the developer who will lead all negotiations and take control of planning related work. In a promotion agreement it can be a more collaborative with the landowner being more directly involved and having a say on how proposals evolve.

2.14 As a further alternative some form of hybrid agreement may be entered into. This is an amalgamation of terms which may relate to an option or promotion agreements. They are most likely to be relevant on a particularly large site where a developer may be willing to build a set number of houses on part of the site and will have an option to buy at a discount to that extent, but will then promote the rest of the land (or indeed

the whole, if it does not take up its option) for sale to third parties with the benefit of planning permission.

2.15 Generally speaking both promoters and developers will pay the landowner's legal and property agents' fees for dealing with the negotiation of terms and documents (although such costs are then usually paid back to them out of the sale proceeds/deductibles at the end) and so for most landowners they are largely free to enter into.

2.16 Promoters and developers will also often pay a fee up-front to the landowner for entering into any agreement. This will often be deducted at the end on any sale (whether to the developer or a third party) but if planning is not obtained then this is retained by the landowner. There can be a trade-off between a higher initial 'fee' element, and any subsequent detailed terms or minimum price point.

2.17 It is common to provide a minimum land price to be achieved for the landowner per net or gross developable acre. In planning viability practice this tends to be considered on a gross acre basis and effectively acts as a threshold or benchmark land value as the test of scheme viability. If a project cannot meet this threshold/benchmark then the agreement may fall or pause for a period of time until the market reaches it. Promotion Agreements will often also provide for a minimum return for the promoter, below which the marketing period can be similarly extended, or a choice for either party to sacrifice its target profits in order to secure a deal. Deductible costs (such as planning and professional fees) are often capped to prevent costs eating into profits to the detriment of the parties.

2.18 Other methods such as 'build under licence' could also be used whereby the land is not transacted multiple times, with value realised through the sale of houses to owner occupiers/investors. This has become an increasingly attractive model for housebuilders who are sensitive to cashflows, with these types of transactions more capital and tax efficient for all parties.

2.19 With reference to the two proposed sites, from the initial responses to the Call for Sites process it appears that landowners are unlikely to have much experience of development and certainly not of large-scale proposals such as new settlements. They are therefore likely to explore options in the market to bring in suitably experienced developers or promoters to help take matters forward.

Developers & Housebuilders

2.20 The actual physical construction of new homes in the UK tends to be delivered by a range of housebuilders. This will include the major players who produce the majority of new build housing including the likes of Barratt/David Wilson, Persimmon, Taylor Wimpey and Bellway. Significant other developers operate nationally such as Redrow, Bovis, Countryside. There are other smaller entities sometimes operating regionally such as Avant Homes and Harron Homes who focus on the Midlands and North.

2.21 The larger housebuilders are public limited companies and therefore need to deliver returns to their shareholders. To do this they need continuity and predictability to

ensure good results by having a steady stream of construction and sales and a trajectory of land that forms a pipeline of future supply.

2.22 Much of a housebuilders supply of land will comprise of sites with some form of planning consent already in place, as that then enables the housebuilders to focus on what they do – the construction and sale of units. To illustrate, Barratt Homes purchase approximately 90% of their sites with some form of planning consent already in place, as opposed to buying unconsented land and being responsible for all the promotion and planning work.

2.23 This approach enables national and regional housebuilders to focus on their core business of building and selling homes without the risks and cashflow requirements related to securing favourable land deals, obtaining site-wide planning consent, and delivering strategic infrastructure.

2.24 Serviced land parcels with capacity for 100 to 250 dwellings are most attractive to the market, as they provide a few years worth of supply with minimal infrastructure or cashflow concerns. Some parcels may be smaller to attract and diversify market interest, such as local and/or niche developers (parcels may be created for 50 units or under to encourage local SME builders, custom build activity, etc).

2.25 On a large strategic site or new settlement there would often be multiple points of sale, accommodating several separate and competing housebuilders at any one time. This is common practice, and the housebuilders themselves will adapt their product types and marketing strategies to ensure they are able to sell properties.

2.26 Whilst the majority of supply comes from smaller, de-risked sites, there may still also be occasions where larger housebuilders secure a larger area of strategic land, where this provides them with control and a pipeline of land suitable for future housing. Several of the UK's largest housebuilders have specific teams leading on strategic land and will have corporate objectives to deliver a large number of new homes going forward from their strategic land portfolios.

2.27 In these instances, the housebuilder would most likely enter into an option agreement with the landowner/s. They would then take on the risk of securing planning consent, implement utilities and major infrastructure works and start to deliver housing. They may also choose to not directly deliver a strategic site in isolation, depending upon the scale of the site, the market context and their overall corporate and commercial objectives. The proportion of a strategic site that a housebuilder would be able to deliver by themselves would be defined by either the market (the market can only absorb so much of a particular housebuilder product) or the financial context (ie whether they will also require returns through land sales). Parcels of a strategic site may therefore be delivered by or sold on to other third-party housebuilders, whether larger or small. This would help to maintain a decent cashflow allowing the developer to secure returns from two separate commercial activities, acting as both a trader in land and through direct construction as per the traditional housebuilder approach.

2.28 Housebuilders operating in this way would often split the role of site developer and direct housebuilding between different teams. A strategic/corporate team with

specialist expertise would be responsible for managing and the successful financing of each separate project, often through a portfolio approach to manage risk. The actual housing construction and sales activities would be delivered through a separate team. It is generally the larger quoted housebuilders who can operate in this way as these have the strongest balance sheets and can benefit from operating economies of scale.

2.29 Many will also explore joint ventures with external investors to de-risk periods of peak debt associated with particularly large schemes that require significant upfront investment. Countryside, Crest Nicholson, Taylor Wimpey, Berkeley and most of the other house builders including Barratt and Taylor Wimpey have interests in large scale strategic land. When market conditions are difficult the appetite to purchase strategic sites outright and unconditionally may be limited, unless there are attractive opportunities to stock up on land at reasonable/low cost, and in areas where the market is remaining relatively strong. During the previous economic downturn housebuilders experienced particular difficulties with cashflow and market conditions and paused activity, but soon re-entered the market to take advantage of low land costs to establish future pipelines of supply. Where risks can be further offset through some form of joint venture / partnership arrangements on strategic sites or where public sector funding can be attracted, it is likely that activity will remain strong.

2.30 With reference to the two proposed sites, it does not yet appear that developers have as yet agreed deals with the landowners, although as and if the sites continue to progress then such interest will undoubtedly emerge.

Land Promoters

2.31 A land promoter would be responsible for taking land through the planning system and the associated elements of risk (i.e. the planning and land disposal risk). The majority of strategic land promoters are smaller and privately owned companies. They can also be specific companies set up to deliver a specific site or project. The corporate structure enables them to act more flexibly as they have no shareholders to satisfy. There are specialist firms who play this role on strategic land such as Hallam Land, Richborough Estates, Welbeck Land, IM Group. There are others such as Gladman Estates who promote a range of sites nationwide.

2.32 Generally, both parties (i.e. the landowner and land promoter) are involved in the disposal element of the process and are exposed to some commercial risk. Ultimately another party - a housebuilder or developer would then be responsible for direct construction – building and selling homes on the site. Housebuilders rely, to some extent on land promoters that specialise in managing the planning and land risks inherent in establishing the principle of development on a site. This then enables housebuilders to purchase de-risked serviced land.

2.33 The relationship between land promoters and housebuilders is mutually beneficial and facilitates the necessary capacity in the industry whilst balancing the risks for the various parties. Land promoters and housebuilders generally approach risk differently and take on risk at different stages of the development cycle.

2.34 Similar to the position with developers, the landowners may seek or be approached by land promoters to take on the role and help bring the sites forward.

Master Developer

2.35 In the early stages of the process on a strategic site such as a new settlement, a significant amount of investment and expertise in navigating the planning process is required. The process can be costly, risky and take many years. Not all organisations – particularly the smaller/medium sized builders have access to the same skills, capacity and resources necessary to promote this type of strategic land.

2.36 This creates a gap for 'master developers' - specialist companies who take on a strategic land promotion function – doing the hard graft of assembling land, testing feasibility, overcoming technical hurdles to development, securing planning consents and taking care of servicing and infrastructure.

2.37 A master developer is one that operates at the strategic scale, likely to include larger urban extension and new settlements typically of at least 1,000 dwellings (but often and more generally at a much larger scale). They tend to be involved on sites that will be delivered over a long time period –mainly where development may take place over 10 years or more and over multiple property cycles.

2.38 The job of the master developer is to manage the overall development process. This include obtaining the necessary planning consents; ensuring that the necessary finance is available for all the advance roads, utilities, schools and other infrastructure; procuring the design and construction of advance infrastructure; and then disposing of individual serviced sites for housing and other uses.

2.39 The master developer market is relatively small. Different types of company are attracted to this type of role depending on their backgrounds and business models. Examples of property companies operating in this space include Urban & Civic, Liberty Property Trust, Grainger, London & Quadrant Estates (incorporating Gallagher Estates), St.Modwen, Morgan Sindall, Harworth Group and Lands Improvement Holdings. Most of the larger sites across England are coming forward through a master developer approach, such as the work of Urban & Civic at Alconbury Weald (Huntingdonshire), Middlebeck (Newark & Sherward), Houlton (Rugby) and the work of L&Q/Gallagher Estates who are delivering Wixams (Bedford), Loves Farm (St Neots), Western Expansion Area (Milton Keynes). Other larger Registered Social Landlords are also now performing the role for example Places for People in Gilston (Harlow) and Peabody in Thamesmead and L&Q through their direct activity such as at Barking Riverside and their acquisition of the portfolio of Gallagher Estates. Other bodies such as Legal & General, Grosvenor Estates and Land Securities operate in this space working with the relevant Local Authorities and bodies such as Homes England through a variety of structures.

2.40 The Master Developer approach is intended to harness the experience from across portfolios of similar projects to address challenges, provide community benefits and deliver a range of serviced land parcels for housebuilders and other developers. By taking such a strategic approach, and by having a portfolio of sites across the country

and at different stages in the planning process they seek to de-risk issues at the earliest opportunity and leverage investment to maximise plot sales and housing delivery.

2.41 They also tend to take responsibility for stakeholder engagement and often seek to implement high quality schemes, often to align with and benefit from national Government programmes and funding. They recognise that placemaking and early investment in infrastructure can help to create value, and by doing so can maximise returns through plot and house sales prices.

2.42 When selling or transferring land to the market, a master developer will either sell serviced land parcels outright, directly deliver development themselves, participate in joint ventures or build under licence arrangements that create long-term income streams to offset land purchase and infrastructure/servicing costs over the life of a development project

2.43 They deploy a range of planning and contractual controls selling land on consistent terms attracting multiple housebuilders, providing multiple products and routes to market for a range of housing providers and products. As such they will seek to achieve strong build out rates as a key part of their cashflow.

2.44 Master developers will be heavily reliant on access to suitable funding and finance, as their model involves longer term cashflows often involving sizeable upfront payments for land acquisition and strategic infrastructure, with returns (through land sales) then spread out into the future. The main sources of finance will come from UK financial institutions and other sources of overseas equity. Homes England also now play an important role in providing longer dated and flexible debt facilities directly to master developers, and where appropriate providing grant funding for certain types of infrastructure to address potential market failure and help secure a supply of new housing.

2.45 As the master developer role has become more prevalent and understood, so have the range of finance options. However, the ongoing COVID 19 pandemic will inevitably have an impact on the both the availability of funding and the risk appetite of lenders. Projects which may be considered to be in weaker market areas with viability concerns are likely to be less favoured, unless they can be de-risked such as through public sector direct involvement and a realistic approach by landowners to value expectations.

2.46 Due to the scale of the 2 sites being considered, it is likely that there will be some strategic coordination and infrastructure delivery issues that lead to a need for some form of master developer. The sites are however at a lower scale (in terms of new settlements being brought forward elsewhere), and therefore could potentially be suitable for a housebuilder or small number of housebuilders to operate together without the need for a separate master developer role.

Local Authorities

2.47 There are a range of potential delivery roles that the Councils could take, from relatively passive to more interventionist, and a number of reasons why the Councils may want to get more proactively involved.

2.48 As a minimum and in the absence of a more proactive approach by the Councils, development would be left to come forward by the market, with the Council's role limited to its statutory planning function. In theory, the financial and legal risks associated with this approach would be limited as there would be no cost to the Councils other than the revenue costs associated with continued operations associated with the statutory planning functions, leading on to the wider delivery of local services funded through national and local taxation.

2.49 This approach does, however, assume that acceptable development will come forward in accordance with local planning policy and that all requirements would be met, including the delivery of all necessary infrastructure.

2.50 For any large and complex sites, there will be risks that such requirements may not be fully satisfied or that landowners may be unwilling to bring forward appropriate proposals. Requests could be made for public sector funding to incentivise/unblock development i.e. through infrastructure delivery or to subsidise or water-down proposals (such as through the provision of grant for or lower affordable housing). Additional funding may be required and could be sought from bodies such as Homes England or the LEP or through local (Council) funds.

2.51 Current practice from around the UK shows that large-scale growth could alternatively be delivered using a broad range of proactive and interventionist mechanisms, including options where growth is fully controlled and/or directly delivered by local authorities either as a sole venture or in partnership with others. Broadly, the extent of involvement can be scaled from none, minimal through to major for example ranging from:

- **Direct intervention in partnership with the private sector:** A partnership approach would allow the councils to enter into agreements with private sector partners to pool assets, funding, skills and resources and jointly deliver large-scale development in a comprehensive manner and to share both risk and reward.
- **Public-Sector Led Development:** Where the council own land, are willing to acquire land, or are able to work with a willing landowner, local authorities could take a leadership role in development and delivery. Options within this bracket would range from land assembly obtaining planning permission, land sales, implementation of strategic infrastructure, disposal of serviced plots to housebuilders, or direct delivery of the entire development. Delivery could be undertaken by the local authority itself or through a publicly owned 'Local Delivery Vehicle' (LDV) such as a Development Company or Partnership.
- **Development Corporations:** Development Corporations are distinct statutory bodies with a single remit to deliver growth over a fixed period of time and would be a more comprehensive approach to the implementation of a new settlement or community. The New Towns Act 1981 (Local Authority Oversight) Regulations 2019 now enables the creation of 'Locally-Led New Town Development Corporations', which are statutory bodies authorised by central government but funded and held to account by local authorities rather than the Secretary of State for the Ministry of Housing, Communities and Local Government (MHCLG).

2.52 The more direct involvement of the public-sector could offer the following advantages over a standard market-led approach:

- Administrative cohesiveness and control with more proactive joint working relationship between relevant stakeholders.
- Able to provide a long-term commitment to delivery. New settlements are long-term projects that require a long-term commitment. The public sector is likely to be better placed to continue to maintain a 'legacy' interest and ride through the inevitable economic cycles.
- A clear and direct ability to use compulsory acquisition powers for the purposes of site assembly (for example where multiple landowners are involved and collaboration is not being achieved).
- The ability to use its formal statutory position to help secure and coordinate funding that can support the delivery of strategic infrastructure.
- Statutory duties to embed stewardship principles from the outset of development and to secure good design, sustainability and community participation.

2.53 Where there is a two-tier system of local government (as in the case of Ashfield with Nottinghamshire County Council), there will be additional considerations as to whether both may want to get involved separately or in partnership. Both may have similar considerations, objectives and opportunities from direct involvement.

2.54 Given the initial viability information on the 2 proposed sites, ADC would no doubt need to consider carefully whether the Council ought to take a role, potentially to help enable the land to come forward with public sector funding support, but potentially on a different basis to other commercial activities that it may be exploring (ie more focussed on delivering place based outcomes as opposed to pure commercial returns).

Homes England

2.55 Homes England (HE) is a non-departmental public body, sponsored by the Ministry of Housing, Communities and Local Government (MHCLG) with an overall objective to accelerate the delivery of housing across England. As a public body sponsored by Government it works closely with local authorities, but also collaborates with private developers, housing associations, lenders and infrastructure providers. Its activities are guided by local needs together with strong commercial skills and understanding to deliver a range of funding and investment programmes to deliver value for money.

2.56 HE will intervene where necessary in the market to get more homes built, tackle market failure where it occurs and help to shape a more resilient and diverse housing market.

2.57 Relevant activities performed by HE include its approach to land with a £1bn Land Assembly Fund, which it uses to acquire challenging sites that the private sector may not otherwise progress without public sector intervention. HE can also intervene where landowners are not able to collaborate effectively or where planning and technical challenges are beyond the appetite of the private sector. Once land has been acquired, HE uses its resources and expertise to bring these sites to market, supporting both

major developers and small builders. This includes using its own land portfolio or acquiring new assets and (on the largest sites) taking an active master developer role, such as the delivery of Northstowe in South Cambridgeshire and Burgess Hill in Sussex.

2.58 It also provides funding to overcome infrastructure funding challenges. For example the £5.5 billion Housing Infrastructure Fund provides grant funding, alongside wider expertise, to bring forward land that may either need significant upfront investment in enabling infrastructure (forward funding – with grants awarded to specific sites and initiatives and potentially running into several £m) as well as to support sites where viability is challenging (marginal viability – offering grants of up to £15m to deliver infrastructure that supports new housing growth).

2.59 In addition to providing infrastructure loans, HE also administrates a £4.5 billion Home Building Fund to provide infrastructure finance to developers of all sizes and to support schemes that commercial lenders may not otherwise get involved in.

2.60 Homes England perform a variety of wider roles in terms of the provision of affordable housing and are always keen to explore opportunities to invest in partnerships and joint ventures that can increase the pace and scale of local housing growth and generate value for public money.

2.61 Given the initial viability assessments of the 2 sites, they could provide good opportunities for Homes England to play a role and address potential market failure through the provision of infrastructure funding support.

D2N2 Local Enterprise Partnership

2.62 The D2N2 Local Enterprise Partnership (LEP) is a locally owned partnership between local authorities and businesses with a key role in deciding local economic priorities and undertaking activities to drive economic growth and create local jobs.

2.63 Whilst the LEP has a focus on economic opportunities, it also has access to funding routes to deliver growth across the area as a whole, including activities related to place-making, housing and infrastructure investment.

2.64 LEP and partners are investing in significant infrastructure projects which are foundations for the future long-term prosperity for the area. It works in close collaboration with local authorities, neighbouring LEPs, and other strategic partner including Homes England to make the case for strategic and coordinated investment in local infrastructure to drive growth.

2.65 Funding opportunities delivered through the LEP include the Local Growth Fund for capital projects to support growth, and the Growing Places Fund (GPF) to invest in kick-starting 'stalled' developments, bringing business growth and creating jobs. Additional funding opportunities will continue to be channelled through the LEP, not least to support the country to recover from the current COVID 19 pandemic, such as the as the award of £44.4m under the Get Britain Building initiative to fund 'shovel-ready' projects to help the local economy and create jobs.

Joint Ventures & Local Delivery Vehicles

2.66 Should the stakeholders consider that some form of project specific 'Local Delivery Vehicle' (LDV) is potentially required.

2.67 Often a site specific LDV may be appropriate to deliver a particular project. On a new settlement, this could perform a master developer role or it could select a development partner to perform that role on its behalf.

2.68 If the LDV is performing the master-developer role, it will dispose of housing sites to private housing developers building for rent and for sale, to registered social landlords and self-builders and (if relevant) to the local authority if it is to build social housing. It might invest directly in some forms of development, such as commercial units or affordable housing, in order to secure long-term revenue streams and equity growth. If the LDV has appointed a development partner to perform the master-developer role, it is likely that this company will build some of the homes itself.

2.69 One option would be for ADC to enter into a memorandum of understanding with landowners or promoters already controlling the land, but not to set up a legal entity. This type of 'informal' LDV could act as a steering committee for a new settlement but would not, itself, act as a master-developer. This approach might be particularly appropriate where the land was already under the control of a private developer or developer consortium, or there was no likelihood of a public sector purchase.

2.70 ADC, landowners and/or developers with a controlling interest in land could establish an LDV by setting up a formal joint venture. There are several circumstances where this would be appropriate for example if the local authority owned some of the land already and/or was prepared to invest monies in land acquisition and/or the delivery infrastructure or development. Alternatively, if it is considered that infrastructure could be provided on a rolling basis, the joint venture could focus on achieving consents, coordinating and specifying works, to be delivered via direct land sales and associated agreements with housebuilders/developers.

Statutory Development Corporations

2.71 There are various types of development corporations: urban development corporations (UDCs), mayoral development corporations (MDCs), and new town development corporations (NTDCs as amended by legislation to be established by Councils through a 'locally led' model). The most successful recently operating UDC was the Olympic Delivery Authority set up under the London Olympic Games and Paralympic Games Act 2006 using the same legislative provisions as for UDCs. A UDC has also been established for Ebbsfleet in Kent. MDCs can be established for projects being promoted by the Greater London Authority. Two have been established in London: the London Legacy Development Corporation (for the Olympic Park), and the Old Oak and Park Royal Development Corporation. Combined authorities can also establish MDCs, with the South Tees Development Corporation being the first outside of London. The locally led model has not being fully applied, but feasibility and business case work is ongoing on the East Midlands Development Corporation being established to maximise the potential of land around the proposed HS2 station at Toton

2.72 This type of statutory vehicle is recognised by many (including the Town & Country Planning Association as part of their consideration on delivering new garden communities) as potentially the most effective vehicle for delivering major new settlements. NTDCs have more holistic responsibilities for creating new communities than the other forms of statutory body. They have a range of powers including the ability to purchase land and take on planning responsibilities. They are however resource intensive to undertake feasibility work, establish and run. They are therefore likely to be most suited either to the very largest individual schemes, or across an area which contain a number of proposals that can provide critical mass.

Infrastructure Providers

2.73 A wider range of bodies and companies will be involved in the funding and provision of a range of specific types of infrastructure. This will include Nottinghamshire CC in terms of its roles with education, transport and social care. It also includes utility providers such as the likes of National Grid and Western Power and Severn Trent Water.

2.74 Most of these bodies will be responsible for capital programmes of investment based upon current and future growth and changes in service demand. For example, utilities are responsible for establishing suitable Asset Management Plans to set out their plans for future investment in their networks to address need. Developers will generally be expected to contribute towards the costs of any necessary specific infrastructure that is needed to serve a development site and a proportion of any wider reinforcement and connections. Smaller developments can generally be accommodated without additional cost.

2.75 Other interest bodies such as the Mansfield and Ashfield NHS Clinical Commissioning Group in relation to health will be responsible for planning and paying for healthcare services for people of Mansfield and parts of Ashfield. Most such bodies will generally seek contributions from new housing development to meet the additional requirements generated by an increased population.

3. Approaches to the delivery of new settlements

3.1 Across the UK, the standard approach to the delivery of housing is for an individual or a small number of private developers to take them through planning onto construction leading to the sale of individual housing units. The key drivers for such developers will involve financial considerations such as the return on their investment (Return on Capital Employed – ROCE), with objectives to ensure that investment in construction is quickly followed by income from sales, enabling developers to move on from completed sites to other projects.

3.2 The approach to the delivery of large strategic sites such as for new settlements often requires a different approach. These sites can take many years to take forward through planning and delivery, likely to be in excess of 10 or more from initial pre-planning work to final completion.

3.3 A long-term interest and perspective is therefore required, with clear leadership, access to significant funding and patient investors. The larger the scale of any proposal and the nature and complexity of infrastructure makes the simple developer led model less appropriate, especially for smaller developers who may not be able to have capital invested over such timeframes.

3.4 Often a site specific 'delivery vehicle' may need to be established. This could provide a means of ensuring the coordinated and effective delivery of a specific project such as a new settlement, taking a long-term view and isolating risk from any separate stakeholder's other business activities

3.5 It is helpful to have early consideration of the approach to delivery and governance. This is needed to not only provide understanding, but also to give confidence that a scheme is credible and deliverable. The realisation of policy expectations set out in the Local Plan would lie primarily with those ultimately delivering the project, so it is important for a Council to understand how strategic sites will come forward.

3.6 If the local authorities and local community are to be involved rather than simply responding to developers' plans they need some involvement in a suitable delivery structure which can help drive and manage development as it moves forward. This type of arrangement can also raise the confidence of investors, who see the prospect of rising values and speedier progress as a result of the commitment and involvement of the local community.

3.7 There are several options that could be considered for the form of delivery structure, the main ones being:

- **Private sector delivery**: where one or more private sector companies deliver a scheme without the need to enter into a property or development agreement with a public body. This typically occurs where a developer or other private sector entity controls all the land needed, has access to appropriate skills, experience and funding, and/or where the public sector has no substantive land, property or financial interest.

- **Public sector delivery**: where the Council (or other public sector body) owns the land, has fully specified the development and procures a construction firm to undertake the development to that specification.

- **Public / private joint venture partnerships:** with some form of agreement in place between a landowner, developer and Council (or other public sector body).

3.8 Within the above there are also a number of alternative types of approach and sub-options which may be appropriate. Figure 3.1 provides a summary of a range of potential alternative delivery mechanisms, their main opportunities/advantages and risks/disadvantages.

Figure 3.1: Review of Delivery Mechanisms

Delivery Mechanism	Opportunities/Advantages	Risks/Disadvantages
Traditional Market / Developer-Led Approach (Status Quo) *With this option there would be limited, if any, intervention by the Council as development would continue to be brought forward by developers and assessed against planning policy and material considerations.*	Powers are already available to the Council, so there is no need for procurement/legal processes or a long lead-in time. Momentum can be established quickly. Can work particularly effectively where a developer is willing to work collaboratively with the Council. The Council can utilise leverage to achieve betterment, e.g. HIF/other funds, direct delivery of infrastructure and continues to have powers to intervene where required). This model is locally accountable and could be managed within the Council's existing democratic structure, and utilise powers already available to the council. Limited, if any, financial risk or cost to the council other than revenue costs and operational expenditure.	Reliance is placed on planning policy to secure design and quality etc. as well as informal agreements (PPAs, MoU). Formal decisions would be made through existing development management channels. Without a dedicated resource, it may be less easy to establish key relationships. Without effective and consistent working relationships with key stakeholders, the Council may find it more difficult to control the pace and quality of development and to ensure it comes forward in a comprehensive manner. This option has no dedicated or automatic funding, other than planning application fees. Other funding will be reliant on the success of central government funding bids, CIL/S106 and borrowing which risks leading to fragmented or untimely infrastructure delivery. A developer-led delivery model is unlikely to be effective in the event that development on individual sites slows or stalls e.g. as a result of Brexit or site-specific circumstances.
Public/Private Partnership or Joint Venture *This option would involve the Council entering into an*	A JV or partnership would offer confidence to landowners and developers around the Council's commitment to delivery, and support the 'deliverability' of the site through a Local Plan EiP.	The success of this model would depend on the effective procurement of a suitable partner with the appropriate skills and expertise to deliver development. This will be time consuming, costly

arrangement with one or more private sector partners. There is no standard model for a JV or partnership, The organisation could have either a limited or extensive remit and be created permanently or for a given lifespan.	Vision and objectives can be enshrined in the business plan for the Partnership/JV. The financial, reputation and delivery risk is shared between the partners. The Council will be able to utilise existing powers (e.g. CPO) and to access funding opportunities open to local authorities e.g. HIF, enabling it to benefit from some land value capture. Resources and expertise could be available and may also have access to cost savings through economies of scale and existing supplier agreements. The council is able to retain some control over the quality of pace and development. Decision-making powers are retained by the LPA therefore democratic accountability is achieved although there would need to be a separation of functions between the council's roles as promoter and LPA.	as is likely to be subject to Procurement Rules. Whilst risk and cost are shared between partners, so is reward therefore any commercial return to the Council will be reduced when compared so some other models (e.g. direct delivery or development corporations). Financial return is not guaranteed, and the council will be exposed to risk as it will need to commit funds and resources to the JV/Partnership. The Council's role as promoter/developer will be discrete from its role as Panning Authority and therefore the success of the JV/partnership will be dependent on the outcomes of the council's statutory and regulatory decision-making functions. This model may be less effective where the Council does not have control of the land and/or is unwilling or unable to use its CPO powers.
Development Company or Publicly Owned Partnership/JV *This option would involve the creation of a company, either by the Council alone or with other private sector partners, who would lead on the delivery of the garden town including the potential to take on the role of master-developer. It is most likely to be effective where the council owns land or is intending to purchase or acquire it from third parties. Alternatively, it can also be effective where third-party landowners are willing*	A JV/partnership or Development Company would offer confidence to landowners and developers around the Council's commitment to delivery. Vision and objectives can be enshrined in the business plan for the Company or Partnership/JV. One of the key advantages of a JV or partnership is that financial, reputation and delivery risk is shared. Unlike with a PSP, these options enable public bodies to benefit from a higher level of return, including full land value capture as well as retaining full control over the allocation of funding. The Council can continue to be able to utilise existing powers (e.g. CPO) and to access funding	The Development Company or JV would be reliant on in-house or commissioned resources, and would be exposed to full financial, reputation and delivery risk. The cost to the council, both in terms of capital and revenue could be high and there would be no dedicated or guaranteed funding to assist with delivery. Although, it is important to note that the Board composition could include representatives from business and industry. The model is unlikely to be effective on sites that already have planning permission or are at an advanced stage of the planning process. And, as the Company/JV would not possess any decision-making powers, its success would be dependent on the Council's statutory and

to work in informal partnership with the Company.	opportunities open to local authorities e.g. HIF, enabling it to benefit from some land value capture. The council is able to retain some control over the quality of pace and development both as partner to the organisation but also in its dual function as LPA. Decision-making powers are retained by the LPA therefore democratic accountability is achieved although there would need to be a clear separation of functions between the council's roles as promoter and LPA.	regulatory decision-making functions. The Company/JV itself would have no statutory basis and actions agreed by the Company would need to be agreed by the Council before they could be enacted.
Development Corporation *Statute allows for the creation of various types of development corporation that are centrally led: New Town Development Corporations (NTDCs), Urban Development Corporations (UDCs) and Mayoral Development Corporations (MDCs). Mayoral Development Corporations are only applicable to combined authority areas with an elected Mayor and are therefore not considered further.*	Development Corporations can be extremely effective at delivering comprehensive development over a fixed term period, due to the extensive land acquisition powers, central government funding and focus, and the creation of a dedicated resource with a single focus. Development Corporations typically have dedicated resources with expertise in land assembly, master planning, and infrastructure investment and delivery. Changes to legislation has enabled Councils to directly establish and control 'Locally led' Development Corporations to operate in their areas. Under a Dev Corp model, plan-making powers can be retained by the local authority, who are therefore able to set out the vision and objectives for the area and to engage communities in the process.	The establishment of development corporations can be a lengthy and expensive process, for example Ebbsfleet DC took 16 months to establish. They are therefore only really appropriate for the very largest schemes. Development Corporations (set up by Govt) can lack democratic accountability as they are not locally-led and remove decision-making and other powers from the LA. Locally-Led New Town Development Corporations do not have this disadvantage. Urban Development Corporations have a specific focus on regeneration, and therefore are unlikely to be suitable for the development of a greenfield new settlement. Existing development corporations, such as Ebbsfleet have experienced difficulties recruiting and retaining suitably skilled and experienced staff.
Land Promoter role: disposal of serviced plots/plots with Planning Permission *Where the Council(s) own or are willing to*	This option would enable the Council to generate early capital receipts and to capture some land value uplift whilst also limiting reputational and delivery risk.	Initial capital required to purchase land. Following sale, the Council would lose the ability to have any meaningful control over the pace and quality of development.

acquire development sites; the option of gaining planning permissions and/or developing serviced plots prior to sale is an option for consideration	This option could be deliverable using in-house or commissioned skills and resources. Some, albeit limited, control over the final development can be retained through the use of developer agreements.	Additionally, there is a risk the development would not come forward at all or would come forward in a different form from that intended by the Council. The council may not achieve the full commercial benefit from land value uplift, depending on the point of sale. Other options may allow greater returns for the asset.
Direct Delivery *Direct delivery involves the council carrying out development itself, which could include infrastructure delivery or housing/commercial development on sites owned or acquired by the Council.*	Direct delivery enables the Council to retain full control over the timing, pace and quality of development and to access a variety of funding opportunities. This option offers the opportunity for long term commercial benefits in relation to the council's land assets and may enable full land value capture. There would be no lengthy or costly legal or procurement processes that may be necessary for other routes to delivery.	Higher capital requirements to purchase land and implement infrastructure. The LA would be exposed to project, financial and reputational risk. The LA would be reliant on in-house and/or commissioned resources and expertise. Projects would need to be delivered alongside other workload priorities and it is possible that non-commercial interests may disrupt delivery. This option is only relevant to sites within the Council's land control or where it is willing to acquire land via voluntary agreement or CPO.

4. ADC involvement in delivery: key issues & implications

4.1 Any potential new settlement in the District is likely to be brought forward by the private sector, at least at the outset as it progresses through planning. There are a range of opportunities for the public sector to take a more proactive approach.

4.2 The Council and its partners would need to fully consider such potential opportunities with associated due diligence and the potential need to develop suitable business cases. Were the Council to consider taking a role, this is likely to introduce implications across a number of key themes. The significance and extent of these will generally become more pronounced depending upon the scale of involvement and intervention. The following key themes will be important:

- Defining appropriate Objectives (including commercial).
- Land & Property Matters.
- Legal powers, operating structures & Governance arrangements.
- Financial considerations.
- Capability, resources & skills.

Defining appropriate objectives

4.3 It will be important at the outset for the ADC (potentially with Nottinghamshire County Council) to consider what objectives they would have from being involved in the projects. There could be a broader range of potential objectives, and it is important at the outset to understand the key drivers and objectives that will influence the appetite/approach to delivery and direct intervention.

4.4 Place-making and land use objectives will be set out in the Local Plan. However, there may be other broader potential aims and objectives that will influence the delivery approach. This could include the opportunity for the Council to act in new and innovate ways, or achieve greater, longer term financial returns for investment in local services. This aligns with matters set out in the ADC Corporate Plan 2019-2023 which in part recognises ongoing financial challenges (now exacerbated by the present COVID 19 pandemic) and through which the Council has and continues to explore new income generation opportunities; including investment activity to deliver longer term income.

4.5 The Corporate Plan also sets out the Council's ambition to ensure there is sufficient good quality, affordable housing for the residents of the District. To achieve this the Council has recognised that it cannot rely upon Registered Providers and private house builders alone, and that the Council can play an active role in developing new affordable housing. Live projects are underway working with Homes England, such as the 10 unit at Sutton in Ashfield on Council owned car park & community centre sites and recent proposal for new affordable housing in Hucknall.

4.6 The Corporate Plan also sets out objectives for the Council to innovate and improve with an organisational culture that can promote creativity, quality over quantity, joined up and collaborative working with external partners.

4.7 Alongside processes to reduce costs including through estate rationalisation, the Council have also been pursuing acquisitions that provide long term income generation. Papers for ADC Cabinet indicate that up to July 2020 the Council had acquired over £60m of commercial investment property, delivering annual (gross) income of circa £4m to support the delivery of key services in the 2020/21 budget and Medium Term Financial Strategy.

4.8 The approach is common with many other similar Councils who are exploring a range of commercial opportunities to address reductions in funding, to increase innovation and entrepreneurialism and develop a commercial approach which generates a greater return and assists the Councils financial resilience.

4.9 In terms of business it is well known that a Council can be an attractive partner for business, bringing its credibility, trustworthiness and integrity into a commercial domain. This may enable appropriate joint ventures and plugging gaps in the market such as through providing investment funding and working in partnership with other developers and other funders to bring forward sites or premises.

4.10 Further consideration will be needed of broader objectives that could be achieved by taking a more active role with the delivery of local new settlements. Some examples of the considerations are set out below.

Potential ADC Corporate Objectives

- Is there a need to gain greater levels of control over the quality of development and to be more able to influence design than through the traditional plan policy & development management approach to delivery.
- Does the Council need to manage and control the pace of development, particularly where it relates to infrastructure provision or the delivery of/contribution towards key local corporate objectives and projects.
- What is the Councils appetite to embrace opportunities and benefit from direct delivery for example in terms of commercial and/or financial returns, and to drive financial returns from assets taking a medium to long term view.
- Could the approach provide new opportunities for direct participation in development including building homes, employment and other facilities.

Approaches to Land & Property

4.11 There is often a large difference in value between greenfield land (generally in agricultural use) and land allocated and subsequently developed for housing and commercial uses. The ability of the public sector to 'capture' this uplift will be an important factor in considering commercial opportunities.

4.12 When considering options for new settlements and strategic growth, it is likely that (at least initially) the majority of potential land will be outside of the control of a Council. There are two ways in which Local Authorities could seek to gain control over such land. The first is by voluntary agreement and the second is by compulsion.

4.13 Landowners will each have their own specific objectives, risk appetite and return requirements, and views on level of control they require. On the one hand, traditional approaches and related offers from land promoters and developers are likely to be appealing as they may offer potentially attractive financial returns and at minimal/no risk to the landowners. However, care is needed to appropriately consider site viability at the outset as often such returns are not fully realised or take far longer than promised. This can be due to insufficient understanding of the costs of development and/or an anticipation of flexible planning policy, such as a target (rather than definitive) requirement for affordable housing, which can then be negotiated away.

4.14 Such matters can lead to unrealised expectations, delay and sites stalling, without public sector funding and/or intervention. The planning system is attempting to address issues related to unrealistic expectations via recent changes to national planning policy and guidance, but it will take some time for the market to adjust.

4.15 Voluntary agreements between landowners and Councils for a transfer or sharing of control are possible but rely on agreeing to shared objectives. Where land promoters and/or developers already have an interest this can be difficult in practice due to standard commercial terms between developers and landowners which may seek to maximise returns potentially to the detriment of policy requirements. Having said this, there will be some landowners and private sector partners who lack the experience or capability to deliver, and who would welcome partnering with a Council and having access to wider resources, funding and powers to enable things to move forward. Each party would need to understand and be comfortable with where the other is coming from and landowners would need to see real benefits from ceding partial or full control of their land

4.16 The public sector could seek to buy out a landowner at the outset to gain maximum control. This would however require sufficient capital funds well in advance of any potential returns. It would require a sufficiently patient funding arrangement and involve asset management. There would remain a risk were the land not to eventually be allocated in for higher value uses (in a Local Plan). The Council would also need to ensure sufficient distance between the statutory decision making of the Council on planning matters, and the commercial approach to the land an asset.

4.17 If the land were not acquired outright then some form of partnership agreement could be implemented. A partnership could take the form of a suitable arms-length company possibly as a joint venture and could involve other partners. Agreement would be needed from landowners and any others with whom they have entered into contracts, such as promoters or option holders. This would involve detailed legal and financial clauses to define how costs and receipts, risks and rewards would be shared, and how the project would be governed.

4.18 Whilst many landowners and developers may be attracted to some form of partnership with a Council, the approach would need careful management and there can be no guarantee that it would result in an acceptable agreement. It would take time and need to be delivered through capable and skilled resources to build trust and agree terms. Such an approach may have the best chance of success if dialogue begins early in the planning process, before a site was allocated and when the landowners recognise that there is a risk that their site will not be selected. Such risks will exist until the independent examination of the Local Plan was concluded.

4.19 Should agreements not be achieved, the ADC could consider their willingness to use CPO powers them as a means of acquisition. To be able to make a CPO, the Councils would be required to make a detailed decision taking into account relevant considerations including specific legal and financial implications and therefore, a future report to Full Council would be required, when and if this becomes necessary.

4.20 Negotiations would need to be attempted in any event, not least as the potential use of the Compulsory Purchase Order (CPO) procedures would need to be accompanied by evidence that the land could not be acquired via other means. Both approaches could be implemented in tandem, and negotiations could in fact be incentivised by applying a credible threat of the use of Compulsory Purchase.

4.21 Where land acquisition and assembly requirements are substantial (in terms of scale and cost), certain delivery vehicles such as dedicated development corporations are likely to be more effective at securing comprehensive delivery than other models. This may be less appropriate in the case of the new settlement proposals in ADC as the sites are relatively small.

4.22 Either approach would need significant early stage resourcing by the Councils in order to create and take forward credible propositions for agreement with landowners and/or central government.

Summary of Land & Property Ownership Issues & Implications

- Property market searches are likely to need to be undertaken, and negotiations held to agree terms on potential sites. Compulsory Purchase Powers may need to be used to assemble land. These could be taken forward alongside negotiations.
- There may be a requirement for a large upfront outlay of capital to purchase land, well in advance of potential returns. However due to 'no scheme world' principles the scope for value capture could be great.
- There would need to be clear distinction between statutory Council decision making on planning, and the purchase & promotion of land assets.
- The risk of sites purchased not being allocated would need to be recognised.

Legal Considerations, Powers, Operating & Governance Arrangements

4.23 Councils have been encouraged to build more homes, and many have experience of delivering housing in their area such as through wholly owned development companies, or joint ventures with partners across the housing sector. This is

particularly pertinent where a Council is considering acting in a commercial way, where it is guided by law to act through a company (the general power of competence given to local authorities in section 1 of the Localism Act 2011 permits councils to do things for a "commercial purpose" through a company).

4.24 ADC already has a track record in considering new ways of working including undertaking commercial activities. As such they will have some experience of the relevant issues that will need to be considered.

4.25 If setting up a new company or defined local delivery vehicle, ADC would need to consider the background law and a number of other related considerations including:

- **Fit to existing structures & approaches**. Consideration should at first be given to existing structures and practices to test whether any existing activities were either being evolved or already in place that could align with the requirements or could be adapted to fit.

- Specific **legal structure of any new vehicle**. Should a new form of vehicle be contemplated, a review will be needed of the different legal structures that are available, how they differ and the impact each would have on the governance arrangements and the relationship between the Council and the delivery body.

- **What powers would be given to the body**. Consideration will be need of the Council's powers and duties – in relation to both setting up and participating in any delivery vehicle – and the wider local government law that the Council will need to act within. Depending upon the structure envisaged, ADC may need to prepare a suitable 'mandate' to be clear on the role and activities of the body.

- **Which projects would be covered by the arrangements.** The New Settlements Study considers two potential sites to address long term housing and economic needs. There may be other sites or proposals for which some form of structure could apply – either within ADC or potentially with other partners outside of the Districts boundary. The context of each site will inform whether they would benefit from or require a certain type of delivery vehicle.

- Whether to create **one overall body or one for each selected project/area**. A single body may have advantages in terms of economies of scale, negotiating power with Government, Statutory Undertakers, private investors, employers wishing to buy land & premises and with house builders. This scale of development controlled by a single entity would enable it to flex resources and maximise opportunities. A larger body may be more resilient to respond to changes within local markets across a wider area but would require joint governance. Single/separate bodies may not have sufficient critical mass/scale would not have the same the economies of scale. The core advantage is that the entire organisation could become more aligned with the needs and aspirations of the specific community they are developing, creating a sense of place and ownership with the community.

- **When should it/they be established**. There is likely to be a long lead in time to better understand and consider all relevant matters and enable Council decision making to run through due processes. Speedier establishment would enable earlier action, such as on land negotiation and purchase to maximise the potential to capture value. There may be a need for the establishment of some form of interim or shadow structure to enable activity to occur in advance of formal consideration and decision making on the ultimate body to be created.

- **Procurement.** Consideration of how the procurement rules will apply and how to mitigate risk where there is uncertainty in any respect. Specialist technical skills are likely to be needed from the outset on planning and feasibility, moving on to direct development and construction activity.

- **State Aid.** ADC would need to consider the flow of money and the transfer of land from a State aid perspective.

- **Regulatory compliance,** including compliance with any requirements of the Ministry for Housing, Communities and Local Government and other Government bodies including Homes England.

- The **tax implications** of different structural models would need to be understood, particularly SDLT, VAT and Corporation Tax. This could lead to engaging directly with Government on future tax reforms to incentivise the use of particular delivery models.

- **Consultation & Approval requirements.** This as a minimum is likely to align with the preparation of 'Outline Business Case' type material, with suitable transparency of decision making.

4.26 Should ADC favour the formation of some form of joint venture partnership, it could enter into discussions with landowners whilst retaining the option of using a statutory vehicle as a fall-back should it prove impossible to reach a voluntary agreement.

4.27 There will also need to be suitable consideration of the approach to statutory planning practices. Fundamentally, and at the outset, the Councils will need to ensure there is a clear separation of functions between the roles of the Council as potential investor/site promoter and as Local Planning Authority. This could include clearly defined decision-making channels and associated officer and member protocol documents to ensure conflicts of interest are avoided. It should be clearly acknowledged that certain regulatory decision-making powers about development may be retained by the Council/s and if so that any delivery vehicle will have no statutory basis to intervene in such processes.

Legal Considerations, Powers, Operating & Governance Arrangements:

- Consideration will be needed across the spectrum of potential structures to understand their pros and cons relating to the overall objectives of the Council, and to consider options ranging from a commercially operating company through to a statutory delivery body.

- The Definition of the scope and purpose of any potential new joint venture / local delivery vehicle will be required at the outset.
- Consideration of a wide range of practical, operational legal considerations as to how best any new vehicle could be established.
- The approach to land assembly and acquisition, potential via compulsory purchase would need early consideration.
- Suitable barriers would need to be in place between commercial activity in relation to land purchase/promotion and the statutory planning functions and decision making of the Council.

Financial Considerations

4.28 Taking a more direct tole in the delivery of a new settlement would require significant upfront expenditure, regardless of the delivery model option chosen and the extent of intervention. This may include land purchase or acquisition, professional fees (development of masterplans and planning applications and possibly including a full design and commercial team of infrastructure and house building specialists), infrastructure works, as well as legal and financial advisors.

4.29 It would be necessary for ADC to undertake sufficient financial modelling and feasibility work to understand the extent of capital and revenue costs associated with each potential project, prior to identifying existing sources of funding and the potential funding gap. Additionally, Should ADC wish to involve another party (either form the public sector such as NCC or HE, or a private sector development partner/funder) then consensus would be needed around investment returns e.g. are the individual authorities seeking early capital receipts at relatively low risk, or are longer term investments with potentially greater returns more attractive.

4.30 Depending on the availability of funding and the cost of the project, consideration would need to be given to partnership approaches with the private sector such as bringing in a development/funding partner which could allow costs and financial risks to be shared, although ADC would still need to commit investment and resources for due diligence and business case development.

4.31 There would be a need to market test any proposed partnership arrangement to ensure the project was attractive to potential investors. External organisations will have their own appetite for risk and reward which would need to align with the Council's objectives. The procurement of a private sector partner may be subject to EU procurement rules, and this should be taken into account when considering the legal implications of the overall project.

4.32 Some potential options to address project funding needs could include (but not be limited to):

- **Council lending.** ADC could use its own reserves, access funding from PWLB for capital projects and investments or can raise funds from the markets. By doing so they would be responsible for adhering to the CIPFA code regarding such

borrowing being affordable, prudent and sustainable. Where direct investment is provided, this would need to be at commercial rates to satisfy State Aid tests so it not necessarily a cheaper funding solution than other providers. It could be done to provide a return to ADC as a margin on the rate at which it was borrowed. ADC would also need to consider the impact of making a Minimum Revenue Provision (MRP) for costs related to servicing any borrowing which may at least not in the early years be generating revenue. To attract private funders to invest in strategic infrastructure, or at least to access cheaper funding rates, there may be a requirement for public sector guarantees (provided by the Council and/or government), together with a clear contractual commitment to make receipts available.

- Councils issue **Municipal Bond.** Councils have statutory powers to issue municipal bonds. However, because of the relative pricing of PWLB, this power has been seldom used over recent years, but could become more attractive if/as PWLB rates increase. Any bond would likely need to be secured against asset base and revenue generating capacity of the Council.
- **Bank finance.** Banks could provide long term finance to a delivery vehicle to fund its activities. The delivery vehicle could drawdown and repay debt as required and as is used. Bank lending would likely be secured against the future cash flows generated by the delivery vehicle given, or its asset base. Bank finance may require some form of guarantee from the Council over the financial obligations of the delivery vehicle.
- **Project Bond.** A delivery vehicle could issue long term project bonds, likely priced at gilt plus a spread to reflect perceived risks of the project's business plan. This type of structure has been used in other sectors, such as student accommodation and social housing. Similar to bank finance, project bonds could be secured against the delivery vehicles cashflows/asset base and may requirement for the LA(s) to provide a guarantee over the financial obligations of the LDV
- **Institutional investment** (potentially including Local Authority Pension Funds). Institutional investor purchases debt from the delivery vehicle. Similar to the above, investment likely to be secured against the future cash flows/asset base and may need to be supported by a guarantee. Investors in this category may be more risk averse than banks and typically prefer stable and index-linked returns

4.33 As any project is likely to take several years to evolve, the actual requirement for funding may be a number of years away. Financial markets, products and attitudes to risk may change materially over this time and as such the Councils would need to continually monitor the market position and opportunities over time.

4.34 Any delivery vehicle will require an investment product that recognises some of the constraints in its business model (for example, no positive cash generation for a lengthy period of time). Investors in the vehicle are likely to require additional mechanisms and comfort around repayment risks inherent in the delivery approach (e.g. planning risk, uncertain timing and quantum of land receipts).

4.35 It is for individual authorities to decide what it can afford to spend or borrow, however the Prudential Code, produced by the CIPFA and recognised by the Local Government

Act 2003, requires that all financial decisions by local authorities meet the tests of affordability, sustainability and prudence. ADC would therefore need to be satisfied that it fully understands the financial risks associated with the project and that those risks can be managed corporately and with consideration to the council's wider portfolio of investments. This is particularly important with large-scale housing such as the proposed new settlements as there will be a significant time lag between the initial outlay of expenditure and the receipt of financial returns.

4.36 Substantial amounts of funding likely to be obtained via debt finance. Where PWLB or other debt finance is secured, Councils should consider the need to set aside some revenue funds for the repayment of that debt and ensure that the CIPFA code is adhered to in terms of affordable, prudent and sustainable borrowing.

4.37 In April 2018, the Government revised its statutory guidance on local government investments as a response to an increase in the number of local authorities investing in assets. This change in behaviour led to concerns being raised by the National Audit Office and Public Accounts Committee that local authorities were becoming exposed to too much financial risk, that investment decisions were not fully understood, and also lack transparency. The effect of the updated guidance was to increase the number of indicators required to demonstrate that appropriate consideration has been given to risk exposure and the impact on broader service delivery.

4.38 Where the Councils are considering providing the investment required, there will be a requirement for them to each undertake a thorough due diligence exercise on the investment proposition to help understand the risk profile of the deal and the risk exposures. As well as a commercial appraisal of the opportunity, the Councils will also need to demonstrate that the investment offers value for money, and to consider the wider portfolio (capital and revenue) implications of the investment.

4.39 Council funding will need to understand the difference between spend for capital and revenue purposes. The Code of Practice on Local Authority Accounting in the UK issued by CIPFA allows an authority to recognise (and therefore capitalise) expenditure as an asset on its Balance Sheet if, and only if it is probable that the future economic benefits or service potential associated with an item will flow to the authority; and the cost of the item can be measured reliably. This may mean that in the early stages, certain costs may not be able to be fully capitalised and require appropriate budgetary treatment.

4.40 There will be a wider range of other financial considerations related to the delivery of new settlements and strategic growth which should be considered. These would include (but not be limited to) the following as potential project returns:

- Equity returns/ dividends including potential share of residual assets/ land uplift.
- Interest charges: return on loan debt via rate margin (subject to State Aid).
- Profit/margin on infrastructure costs: A profit rate could be built in to modelling and be used to both fund delivery vehicle structure and provide ongoing return to LDV shareholders.
- Share of land value uplift: as land is sold to the market.

4.41 In addition there would be the following additional considerations to take into account:

- Council tax income: an initial working assumption could be to assume that this would be "neutral" against increase in service demands, although should the delivery model include a suitable stewardship approach then certain cost liabilities could be taken away from the Councils future responsibilities.

- Business rate income: potential for growth to be retained but there could be risks from future resets (i.e. redistribution to other areas).

- New Homes Bonus: the overall amount generated could be sizeable but would be spread over future years and is therefore not easily adaptable to high upfront capital spend. The Bonus has reduced in significance over recent years and its longevity is related to central Government policy, albeit some form of financial 'incentive' to achieving housing growth is likely in any event.

- Commercial property income: for example commercial land/property could be retained to provide ongoing returns.

- Planning fees and ancillary services: such as building control, land charges etc.

Summary Financial Issues & implications

- What is the appetite within the Council to secure and manage a level of potential project costs (all/part), and/or would the organisations prefer to share cost and risk with a private sector partner?
- What is the corporate approach to borrowing, from what sources and on what terms?
- Does the project have sufficient commercial appeal or does the Council accept that it is filling a gap where the market may or otherwise be interested.
- How far would ADC be willing to share the outcomes of the project, both in terms of deliverables and potential financial returns?

Resources & Skills

4.42 The resources and skills required to deliver strategic, large-scale growth are considerable, and are likely to include a variety of professional disciplines, ranging from surveyors and commercial experts, through urban design, planning and environmental professionals, to infrastructure providers, house builders, and project managers amongst many others. These skills are unlikely to be available in-house within the councils to the scale required to deliver a new settlement.

4.43 The Councils will therefore need to consider where to secure the additional skills and resource required, from the following main options:

- Identify existing/potential in-house resource (or scope for shared resources with other partners undertaking similar activity).

- Commission or buy-in temporary resource as a virtual 'project team'.
- Procure a private sector partner with the relevant expertise to enable the development.
- Consider a delivery model that provides a dedicated resource e.g. a development corporation or development company.

4.44 As set out earlier there will be a need for core staff and consultancy support from an early stage, and well in advance of generating scheme revenue. This would include project leadership and management resources, team support and a range of specific planning/specialist roles.

Summary Resources & Skills Issues & implications

- Additional and new resources & skills would be needed to bring forward these types of projects.
- These will include elements not readily available, such as commercial, asset management, finance and technical disciplines related to bringing land forward through the planning system into development.

5. Delivery Routemap

5.1 This report has set the key stakeholders involved, a range of potential alternative delivery mechanisms and the key issues and implications that ADC would need to consider further.

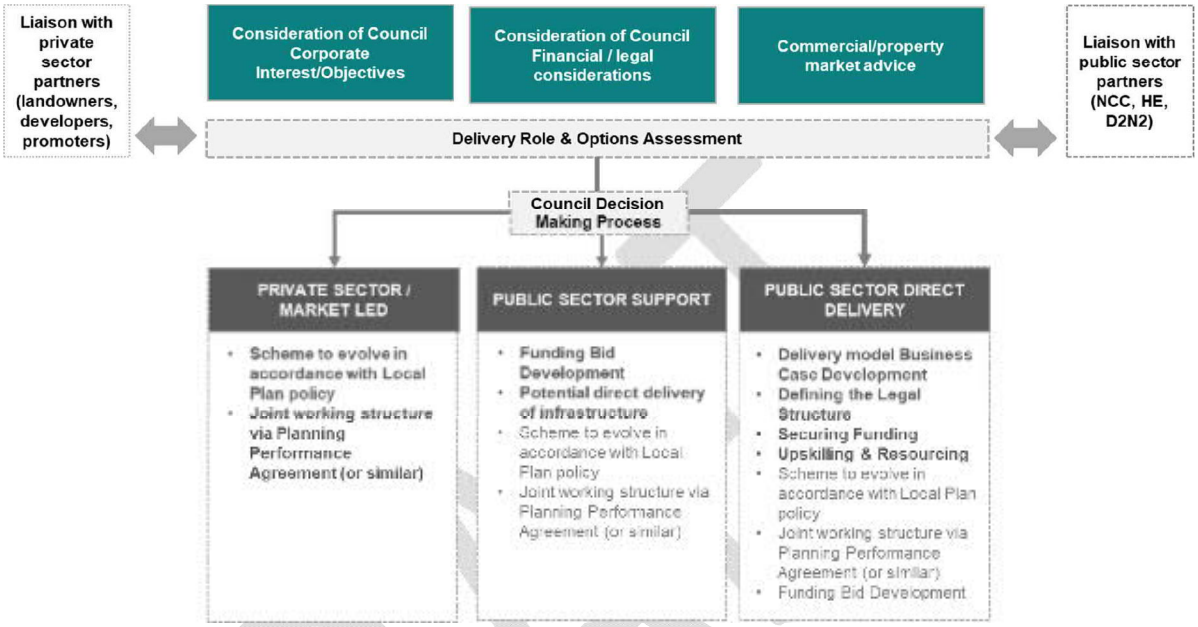
5.2 The study has been informed by a wide review of current practice in the delivery of new settlements alongside the specific context of the 2 potential new settlements sites being considered. From the material currently available it appears that the proposals are at a very early, formative stage, and that landowners have put the land forward without as yet defining the delivery approach or securing agreements with private sector developers or promoters. There will inevitably be considerable further work to do in evolving proposals and establishing an appropriate model for delivery.

5.3 In terms of moving forward we would suggest the Council takes forward the following steps and broad routemap:

- Council to consider internal Corporate objectives and appetite for direct involvement, to include appropriate financial and legal considerations together with advice on commercial/property matters.
- Council to separately liaise with the relevant new settlement landowners to understand their positions, next steps and thoughts on potential partnering opportunities.
- Council to also engage separately with public sector partners on the opportunities, mainly with NCC, Homes England and D2N2. This ought to consider any opportunities or eligibility the schemes may have for funding, together with any appetite from partner organisations to get involved in a potential delivery mechanism.
- From the above the Council to prepare a summary options appraisal to evolve credible options, their benefits, implications and challenges.
- Subject to the local Council governance arrangements there may need for appropriate scrutiny and formal decision making on preferred options (via committee structures across the relevant public sector partners).
- A decision should then be able to be made on the extent of potential involvement and overall approach to delivery. This would clearly be subject to a range of more detailed analysis, but could broadly entail either:
    - Leaving the schemes to be delivered by the market/private sector. In which case the Council role would be to work with the landowners and developers to deliver schemes compliant with policy, using tools such as a Planning Performance Agreements to secure active and positive collaboration.
    - Recognising a need for some element of public sector involvement. This would involve the same aspects as set out above, together with more proactive Council led work to bid for funding and/or allocate local resources to support the scheme's delivery, such as the provision of and/or direct delivery of certain infrastructure works;

- Taking a more comprehensive role with delivery, which would involve the need to establish some form of local delivery vehicle, secure appropriate funding (form various sources) and take the scheme/s through planning on to delivery.

Figure 5.1: Delivery Steps / Routemap



5.4 The routemap is intentionally high level and clearly a range of activity would need to be advanced to consider matters to the level of detail required. Care would also be needed to ensure that from the outset there was sufficient distance between Council consideration and involvement in delivery, versus the statutory functions relating to plan making.

5.5 Ultimately it will be for the Council to take a view on the findings of the wider New Settlements study, especially with regard to the infrastructure necessary to enable the development to take place, the initial findings on scheme viability and the implications this will have on Local plan policy development.