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Housing Delivery Study for Greater Cambridge

Greater Cambridge Shared Planning

FINAL VERSION

October 2021

Housing Delivery Study
– FINAL VERSION
Quality information

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Housing Delivery Study
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Prepared for:

Greater Cambridge Shared Planning

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Executive Summary

1.1 Cambridge City Council and South Cambridgeshire District Council are working together to create a joint Local Plan for the two areas – which the Councils are referring to as Greater Cambridge.

1.2 AECOM and HDH Planning and Development Ltd were appointed by the Greater Cambridge Shared Planning Service (GCSP)[1] in August 2020 to provide research on aspects of housing delivery within Greater Cambridge. The research is to provide evidence in support of the emerging Greater Cambridge Local Plan, including feeding into the Housing and Economic Land Availability Assessment (HELAA) process and future updates to the housing trajectory.

1.3 Work on this Housing Delivery Study commenced in August 2020 with a literature review of relevant secondary sources and an analysis of GCSP-held data to inform the content of a questionnaire distributed to local and national stakeholders involved in the housing and development industry (drawn from the private, public and third sectors). The questionnaire invited views on a number of matters pertinent to housing delivery in Greater Cambridge and sought to test preliminary assumptions adopted for this study.

1.4 The outputs of the first phase were published in an interim findings study in November 2020. The interim findings study also provided views on the emerging three growth level options for homes and eight strategic (non-site specific) spatial options.

1.5 Following publication of the interim findings, AECOM and HDH undertook a series of workshops and interviews with organisations with an in-depth knowledge of the Greater Cambridge housing market. The outputs of this engagement, alongside further data collection and the survey feedback, has supported the refinement of the housing delivery assumptions set out herein.

1.6 This final study also includes views on the preferred housing requirement, an alternative hybrid spatial option, and the preferred spatial option. These views have been provided on a comparable basis to those provided on the growth level options and strategic spatial options, that were considered in the interim findings report. There is also analysis of the delivery of the proposed Preferred Options housing trajectory.

1.7 GCSP has used the information provided in this study, alongside all other Local Plan evidence, to develop reasonable alternatives for growth and decide on the preferred spatial strategy for the new Local Plan. GCSP will hold the next formal public consultation, on the preferred options for the Local Plan, in autumn 2021. Feedback from the formal consultation stages shall be used to help refine the assumptions and approach to housing delivery prior to finalising the draft plan, proposed submission plan, and then submission to the Planning Inspectorate.

[1] Cambridge City Council and South Cambridgeshire District Council operate a shared planning service, managed by the Greater Cambridge Shared Planning team.

Housing delivery factors in Greater Cambridge

1.8 The UK construction sector relies upon migrant labour. Following the Coronavirus global pandemic and the UK's exit from the European Union there is evidence that the sector is facing a labour and skills shortage with the biggest impacts likely to affect London and the South East. The UK-born construction workforce is ageing. Combined with issues with training and apprenticeship programmes and falling birth rates, ageing means that there are structural shortages in the sector. In Greater Cambridge, the two Councils are working with the Greater Cambridge Partnership, Cambridgeshire and Peterborough Combined Authority and partners across education, training and business to deliver apprenticeships, and encourage uptake of training opportunities. There are opportunities through the new Local Plan and the Council's procurement processes to help boost construction skills and uptake of apprenticeships locally.

1.9 Technological innovations, such as Modern Methods of Construction (MMC), can help to ameliorate some of these labour market and skills risks and generate new jobs in off-site manufacturing, whilst at the same time encouraging standardised levels of quality and durability. Adopting MMC can also lead to increased productivity in the sector, meaning that fewer people are required to build the same number of houses. MMC also offers the potential to expand the range of house/ apartment typologies and provide choice within the market.

1.10 Specialist forms of housing (such as older peoples housing and self-build) and tenures (such as private rented sector) can help to boost delivery rates by offering a wide variety of products to a wider spectrum of prospective renters and purchasers who may be seeking housing other than traditional market homes for sale or affordable housing in the form of affordable rented homes and/or shared ownership.

1.11 Build to Rent (BTR) schemes are likely to be 'pre-sold' to institutional investors, reducing the risk to developers and allowing them to be built out rapidly, especially in the early phases of larger development. There are limited BTR developments at present within Greater Cambridge which suggests there is likely to be pent up demand for quality rented products. Investors are likely to favour the Cambridge location given its buoyant rental market that will provide funding certainty for rapid build out of schemes.

1.12 On larger developments the inclusion of some serviced self-build plots/custom-build alongside more conventional market homes has the potential to speed up the overall rate of sales. Councils and developers can impose timeframes for progress and the use of design codes or plot passports may help to speed up the consents and construction phases. Research suggests a typical scheme may take ~1.5-3 years (from plot purchase to final completion).

1.13 The impact on the economy and housing market of the Coronavirus global pandemic may impact on aspects of site viability, sales rates and investors' appetite. Public intervention may be required to bring sites forward in the short term. Overall, the short-term impact on delivery rates is likely to be negative however Greater Cambridge may fair better than other locations because of its ability to offer the attributes that buyers and renters value (such as more space and choice of suburban and rural locations) and because of its economic

strength in sectors that have been resilient for example technology and life sciences.

Market Absorption

1.14 There are several interrelated factors that influence the ability of the market to absorb new-build dwellings – the market absorption rate. For the purposes of plan making and the Local Plan's development strategy and when preparing the housing trajectory, it would be prudent to consider the proximity of nearby strategic sites and work with site promoters to understand whether competing sites (or sites reliant on the same infrastructure improvements) will reduce potential delivery rates over the plan period by applying broad areas of influence assumptions.

1.15 Based on the published literature and stakeholder feedback, it would be prudent to engage with the landowners, promoters and developers of draft allocation sites to understand whether the presence of other nearby sites may reduce likely build-out rates. There is some evidence in the published literature that suggests for detached greenfield sites, the Councils might consider similarly sized sites within an 8-mile radius as in competition and for urban sites this may be within 2-mile radius. This rule of thumb should be tested through further engagement with site promoters once the Councils' preferred option development strategy and site allocations have been published in the Greater Cambridge Local Plan: First Proposals.

Assumptions summary

1.16 This report updates the lead-in times and build-out rate assumptions from those include in the Interim Findings in November 2020 in light of further research and engagement with the development industry. It also specifically comments on the windfall allowance in light of recent development trends, taking into account the changes made in the 2019 and 2021 National Planning Policy Framework (NPPF) and new monitoring data.

Windfall Sites

1.17 Historically the Councils have included a windfall allowance of 350 dwellings per annum (dpa) in Greater Cambridge but a review of the data indicates that 500dpa has been delivered in the area. It is considered that a mid-point figure of 425dpa is justified and realistic, however this could be increased by 5% to 450dpa taking into account the likely contribution of new permitted development rights. On this basis we would suggest the split should be 240-255dpa for South Cambridgeshire and 185-195dpa for Cambridge City.

1.18 The mid-point approach is considered pragmatic and reasonable for the purposes of supporting this Joint Local Plan, however we would recommend that the Councils review the windfall allowance when preparing evidence to support the successor to the Joint Local Plan so that any 'on the ground' trends for windfall development can be factored into the next plan.

Lead-in Times and Build out Rates

1.19 To advise on the deliverability of different sites it has been necessary to develop assumptions regarding lead-in times and build-out rates for strategic

sites and non-strategic sites. Typologies were created for lead-in times and build-out rates for strategic sites (which we define as 200 or more dwellings), and also for smaller non-strategic sites based on the typologies developed for the GCSP Housing and Economic Land Availability Assessment (HELAA). The headline assumptions have been fed into our analysis of the housing trajectories for the different spatial strategy options, and to inform the Councils' Preferred Option.

1.20 As the Councils work their way through the plan-making process these strategic and non-strategic site assumptions can be refined as they are applied to individual sites, taking into account site-specific circumstances and the aspirations of individual landowners/developers. For example, where a housebuilder is promoting a site there is the potential to shorten the lead-in period as there is no need to dispose of the site to a housebuilder after outline permission is granted, and also there is the option of a hybrid application to allow some dwellings to be built more quickly as part of a first phase. Following consultation on the Greater Cambridge Local Plan: First Proposals it is recommended that the assumptions put forward in this report are reviewed in light of consultation feedback and with the benefit of additional monitoring data to assess whether the assumptions put forward remain suitable for application in future housing trajectories.

Review of commentary on growth levels and spatial scenarios

1.21 **Chapter 8** of this report updates the November 2020 Interim Report findings on the three housing requirement options and eight spatial scenarios with the new lead-in time and build-out rate assumptions and windfall allowance applied.

1.22 The revised findings do not significantly alter the main conclusions from the interim findings with regards to the three growth level options and eight spatial options. The eight spatial options at the minimum growth level option would still be capable of delivering their stated housing requirement and a five-year housing land supply at plan adoption, whilst the five-year housing land supply position at plan adoption for the eight spatial options at the medium growth level option has been improved slightly with the application of the new assumptions. To provide a sufficient buffer of sites we would still recommend that for these two growth level options the Councils include new allocations that provide short/medium/long-term 'top-up' supply alongside the existing commitments; and/or a small number of sites could be replaced with alternatives to help deliver a 'smoother' trajectory over the plan period.

1.23 Our findings still show that, when the revised assumptions in this report are applied, all of the eight spatial options at the maximum growth level option would be unachievable during the plan period and would not result in a five-year housing land supply at plan adoption. To deliver a five-year housing land supply at plan adoption, for any of the eight spatial options at the maximum growth level option, it would still require the application of a stepped annual housing requirement or the 'Liverpool method[2]' to address any shortfall in the

[2] Whereby any shortfall since the start of the plan is added to the remainder of the plan period evenly; in contrast to the 'Sedgefield' method (advocated in the Planning Practice Guidance) which addresses the shortfall in the next five years.

five-year housing land supply. Based on the housing delivery assumptions set out in this report, any stepped annual housing requirement would require overall annual completions later in the plan period in excess of what is deemed to be achievable and would require levels of growth in excess of historical annual housing completion rates. Adding new sites that would deliver later in the plan period to make up for the shortfall earlier in the plan period would still likely be unachievable given the unprecedented levels of housing completions required to meet the overall housing requirement over the plan period.

1.24 Overall in terms of the housing growth level options we still consider that there is scope to deliver higher rates of delivery in Greater Cambridge than under the Medium growth level option.

1.25 It is still the case that generally the spatial options that mix short-medium term sources of supply (smaller sites in urban areas and villages) with longer-term sources (new settlements, urban extensions and Green Belt release) are better able to deliver across the plan period as a whole with a smoother trajectory. These sites also have different characteristics and are likely to result in variety in terms of location, size, type and tenure of housing, and also be more geographically spread to reduce competition, thus better matching the housing supply with demand.

1.26 The housing delivery assumptions in this report still show that in order to optimise housing delivery, demonstrate a five-year housing land supply and maintain delivery across the plan period, it will be necessary to gap-fill the 'troughs' in the housing trajectory with additional sources of supply. This should be underpinned by cautious but realistic lead-in times and build-out rates, and an 'over-allocation' of land against the eventual housing requirement (we recommend at least a 10% buffer) in order to ensure that any unforeseen delays to delivering individual site allocations during the plan period, or changes to market conditions, do not result in under-delivery that would threaten the five year housing land supply or performance against the Housing Delivery Test.

Commentary on Preferred Housing Requirement, Preferred Option and Green Belt Hybrid

1.27 **Chapter 9** assesses the preferred option 'medium plus' housing requirement plus two new spatial scenarios to deliver it, the preferred option and a Green Belt hybrid. The assessment was undertaken using the same methodology as previous assessments to enable like-for-like comparisons to be made.

1.28 With regard to the preferred housing requirement option – 'medium plus' – this performs similarly to the previously assessed 'medium' requirement but slightly better in that it better-matches housing supply against jobs. Delivering against medium plus requires new allocations in the mid-latter part of the plan period as the beginning of the plan period is largely met by existing commitments, which should result in the ability to deliver a five-year housing land supply at plan adoption and pass the Housing Delivery Test. No concerns were raised in the engagement with the development industry about the ability to deliver against this requirement.

1.29 With regard to the new spatial scenarios, both are considered to be realistic and deliverable spatial options during the plan period as they bring forward a blended supply of sites that would 'top up' the baseline housing supply in the mid-latter part of the plan period to meet the medium plus requirement.

1.30 The difference between the two spatial options is approximately 2,000 dwellings at either Cambourne Additional (the preferred option) or in the Green Belt. The lead-in times are both significant (dependent on identification of the location of the new station at Cambourne and Green Belt release through the adoption of a new Local Plan) and the build-out rates are similar. The preferred option would begin to phase in additional dwellings at Cambourne as the existing Cambourne West committed site is built out, which should reduce any potential market absorption issues.

Assessment of Preferred Option Housing Trajectory

1.31 The Preferred Options housing trajectories produced by the Councils for the new proposed allocations draw upon the cautious assumptions for build-out rates and lead-in times as recommended in this report and the Councils have provided sufficient site-specific justification where the assumptions have been departed from.

1.32 The Interim Findings and the recommendations contained within this report have influenced the Councils' selection of their Preferred Option strategy and housing requirement. As such the Councils are in a strong position to pursue a plan that delivers against the preferred option housing requirement over the plan period as a whole, including a sufficient 'over-allocation buffer' to build-in flexibility and resilience into the supply. The Councils' development strategy and associated anticipated housing trajectory have the ability to deliver a five-year housing land supply at plan adoption.

1.33 The majority of the housing supply over the plan period comes from sites that are already committed, such that the new sources of supply identified in the Preferred Options do not begin to deliver completions at scale until the middle of the plan period. The strong supply from existing commitments at the start of the plan period, and the choice of the 'medium plus' housing requirement, result in a plan that begins without any shortfall. This means that there is no need for a 20% buffer to be applied to the five-year housing land supply at plan adoption, and there is no need, for housing delivery purposes, to pursue a stepped annual housing requirement.

Next steps

1.34 The Councils will be consulting on the preferred options in autumn 2021. Feedback should be sought on the housing trajectory and the assumptions contained within it, based on the recommendations in this Final Housing Delivery Study report. Feedback in particular should also be sought from the landowners, site promoters and developers for the preferred option site allocations to understand if they have any concerns with the trajectory.

1.35 Depending on the feedback received there may be a need to revise the lead-in time and delivery rate assumptions for the individual sites and to update the trajectory as the plan is progressed to the next stage, however as previously stated it is considered that the strategy contains sufficient flexibility and enough

of a buffer to continue to be deliverable over the plan period should one or more sites not progress as intended.

1. Introduction

1.1 AECOM and HDH Planning and Development were appointed by the Greater Cambridge Shared Planning Service (GCSP) in August 2020 to provide housing delivery evidence to support the emerging Greater Cambridge Local Plan, feeding in to the Housing and Economic Land Availability Assessment (HELAA) process and preparation of the Greater Cambridge housing trajectory.

1.2 The Councils required the production of this Housing Delivery Study at an early stage of the plan-making process to inform decisions that are made regarding the selection of a preferred spatial strategy and the annual housing requirement figure (potentially including a stepped requirement). AECOM and HDH have reviewed the Council's existing evidence and undertaken research to help the two Councils to prepare a robust Local Plan, including housing trajectory, and defensible housing land supply position over the new joint Local Plan period.

Methodology

Literature review and secondary sources of data

1.3 A literature review and analysis of secondary data sources supplement a review of all data supplied by GCSP and evidence collected by the project team (via comparator schemes, the survey, interviews and workshops) to provide commentary and guidance on each of the housing delivery matters covered in this study.

Surveys and Workshops

1.4 Central to informing the Housing Delivery Study has been engagement with the development industry and stakeholders in the local housing market. Whilst much of the analysis in this report is based on quantitative research (such as housing statistics and analysis of comparator housing schemes), this is a forward-looking study and so it has been critically important to engage with those who will deliver housing over the plan period. Quantitative research drawn from developments within the Cambridge Housing Market Area and across similar markets has therefore been supplemented with qualitative research inputs. To reflect the local context and market, key assumptions were tested through engagement via both surveys and interviews/workshops in order to collect information in relation to the Housing Market Area from active participants in the market.

Surveys

1.5 In order to capture the full spectrum of organisations responsible for housing delivery, the following organisations were surveyed:

- Housebuilders (medium and large, regional and national)
- Housing Associations and registered providers
- Public sector groups (e.g. Non-departmental public bodies)
- Specialist developers
- Landowners and promoters
- Agents
- Statutory consultees (where relevant)

1.6 The questionnaire sent to consultees (see **Appendix 3**) included the following themes:

- Market Capacity
- Industry Capacity
- Infrastructure Capacity
- Housing demand and need
- Market prospects (including the impact of Covid-19 and Brexit)
- Interventions

1.7 A summary and analysis of the survey is contained **Appendix 4**.

Workshops

1.8 Following analysis of the survey feedback, a number of organisations were invited to participate in workshops and interviews to discuss in greater detail the key themes addressed in the questionnaire and this report. A slideshow was prepared to help aid the discussion (see **Appendix 5**).

1.9 The levels of growth under consideration for the Joint Local Plan and implications on housing delivery mean that it was particularly important to understand the industry's views and capacity for delivering housing. A summary of the workshop findings is contained at **Appendix 6**.

Limitations

1.10 The findings presented in this paper are based on a synthesis of secondary sources, data supplied by GCSP, data collected by the project team, stakeholder feedback and the professional judgements of the AECOM/HDH consultant team.

1.11 This project is being completed during the coronavirus pandemic. The coronavirus (COVID-19) virus was first reported in Wuhan, in China, in December 2019 and was declared a global pandemic in March 2020. It is too early to predict what the impact on the economy and housing market may be.

1.12 There are real material uncertainties around the property market, the construction industry and future housing trends that are a direct result of the COVID-19 pandemic. Whilst we have addressed the potential implications in our commentary, it is not the purpose of this study to predict what the impact

may be for Greater Cambridge and how long the effect will be. This study is based on appropriate existing available evidence.

Scope of this study and structure of this report

1.13 This Housing Delivery Study considers the following:

- Housing delivery in Greater Cambridge (**Chapter 2**) including construction industry capacity, alternative options available to increase housing delivery and implications from the Covid-19 pandemic. There is also commentary on the potential of self and custom-build, modern methods of construction, older peoples housing, build to rent and specialist forms of housing to increase delivery rates.
- Windfall sites analysis (**Chapter 3**).
- Market absorption in terms of variety of types of sites and location (**Chapter 4**).
- Lead-in times and build-out rates assumptions for strategic sites, non-strategic sites and site typologies (**Chapters 5, 6 and 7**).
- Review of potential growth levels and spatial options in light of the findings from this study (**Chapter 8**).
- Commentary on preferred housing requirement, preferred spatial option, and additional hybrid option (**Chapter 9**).
- Commentary on the deliverability of the preferred option housing trajectory (**Chapter 10**).
- Conclusions and recommendations (**Chapter 11**).

1.14 The interim findings study (November 2020) has already considered the following:

- Implications for the Councils of different annual housing requirement options and feasibility of a stepped trajectory.
- Advice on deliverability and/or developability insofar as it relates to the five-year housing land supply, housing trajectory and housing delivery test (including consideration of a stepped trajectory).
- Implications for housing delivery of each of the potential spatial scenarios (and commentary of location specific issues and opportunities). Please note that this has been updated in **Chapter 8** of this report.

2. Housing delivery factors in Greater Cambridge

Introduction

2.1 The interim findings provide an overview of historic delivery rates, comments on the scope for increasing them and discusses whether a stepped housing requirement would be required or justified. This section of the report builds on those findings, discussing the ability of the construction industry to deliver an increase in homes; alternative options available to increase housing delivery (including through technological innovation such as Modern Methods of Construction and alternative delivery models such as Build to Rent); the contribution Self and Custom Build homes and other forms of specialist housing can make to delivery of new homes; and the implications of the Covid-19 pandemic on the local housing market.

2.2 Each of these factors is explored below, with reference to relevant research and evidence reports where available.

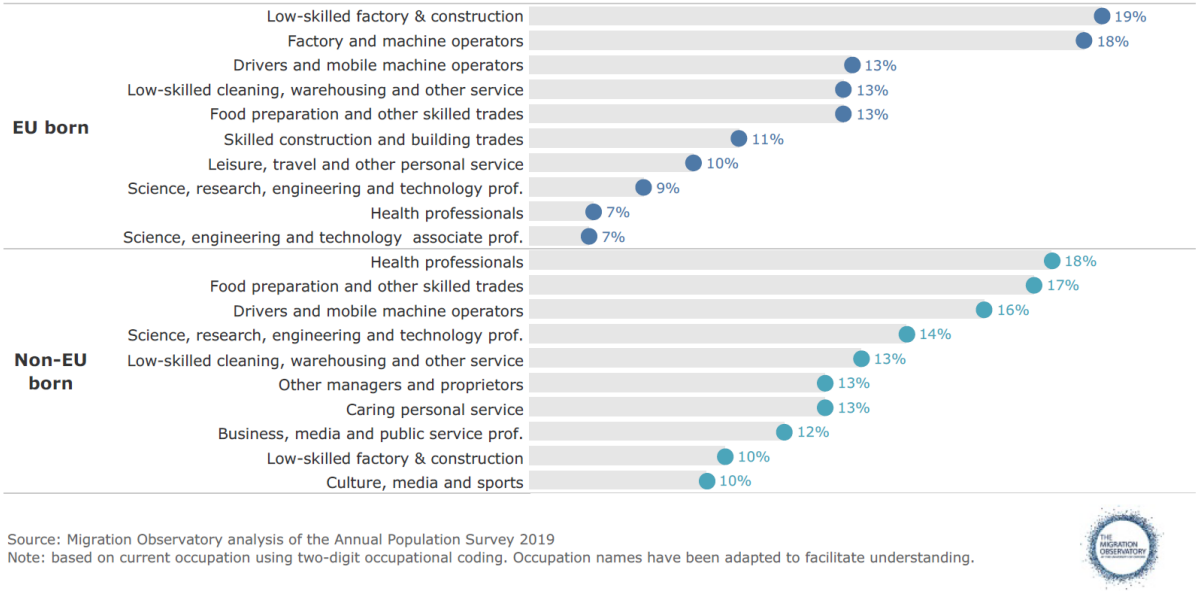
Construction industry capacity

2.3 A report commissioned by the Migration Advisory Committee in 2021 prepared by the University of Birmingham and University of Warwick, 'Migration in the UK Construction And Built Environment Sector' (CITD, February 2021), investigated employer decision-making around skill shortages, employee shortages and international migration for distinct sectors of the UK economy. For the skilled construction and building trades it reported that:

- Construction is a volatile sector, prone to gluts and shortages in demand for workers, who are often employed on a project-by-project basis. Poaching from other firms was by far the most common strategy for addressing skills shortages identified in the literature.
- Training to develop the skills pipeline is recognised as part of the solution to skills shortages in the construction sector, but employers have argued that this needs to be seen alongside continued access to migrant workers to provide the flexibility that the industry needs. However, the small size of many employers in the construction sector, the amount of subcontracting and associated self-employment act as disincentives to training.
- The UK-born construction workforce is ageing. Combined with issues with training and apprenticeship programmes and falling birth rates, ageing means that there are structural shortages in the sector.
- Industrialising nations have been growing rapidly, both demographically and economically. This has led to construction booms and an increase in construction workers there. These construction workers are a potential source of labour for construction employers in the UK.

- A trend towards bigger and more complex projects requires a larger pool of labour and skills than local areas can provide.
- Adoption of modern methods of construction (MMC) makes migrant workers with relevant skills and experience particularly attractive. MMC strategies are associated with utilisation of pre-manufacturing technologies, digitisation and IT literacy, requiring investment in associated skills for construction workers. They represent one way of addressing skill shortages in the construction sector, while at the same time improving productivity and modernising the sector more generally.

2.4 Research from the University of Oxford's Migration Observatory shows the UK construction sector is highly dependent on migrant labour based on data from 2019 (see **Figure 1**). According to the ONS's Labour Force Survey, 10.2% of the UK's construction workers were from outside the UK in 2019. This was slightly down on the 10.7% that the ONS recorded in 2018. Almost half (49.6%) of all non-UK workers in 2019 lived in London.



Source: Migration Observatory analysis of the Annual Population Survey 2019
Note: based on current occupation using two-digit occupational coding. Occupation names have been adapted to facilitate understanding.

Figure 1: Top 10 occupations with highest share of EU-born and non-EU born workers Age 16-64, 2019 (Source: Migration Observatory analysis of Annual Population Survey 2019)

2.5 The impacts of the Coronavirus Global Pandemic and UK's exit from the European Union are beginning to be felt by the construction sector. Press reports over the summer of 2021 have highlighted how this is impacting the sector with the biggest impacts reported in London and the South East ('Exodus of EU workers leaves UK construction industry facing shortages' – Financial Times 14 June 2021). The Office for Budget Responsibility commented in their most recent Economic and fiscal outlook (March 2021) that: "recent analysis of labour market data suggests that the population may be substantially smaller than official statistics suggest as a result of falls in net migration." It is unclear at this time how these two factors may play out in Cambridgeshire.

2.6 However, the Construction Industry Training Board (CITB), an executive non-departmental public body sponsored by the Department of Education, has

raised concerns that the sector is not well equipped to deal with the end of the free movement of labour and employers are not well engaged with the new Points Based Immigration System (PBIS):

> "Over a quarter of employers and half of recruitment agencies believe this impact will be serious. This is a burning platform. And yet only one in ten construction employers say they understand the new migration system…Employers who are aware of the new system…are concerned with what they see as its prohibitive costs…we believe that the forecast for construction recovery, the updated national infrastructure plan, and the important role that construction will play in meeting the net zero carbon target will drive a significant increase in construction skills demand from the end of 2021. In the short term, access to migrant labour will remain essential if we are to avoid potential skills shortages, while the industry works with Government to grow the domestic construction workforce. This is particularly the case given both the ageing domestic construction workforce and the risk of a growing number of EU migrant workers returning home in the future." (CITD, February 2021)

2.7 A report commissioned by the Cambridgeshire and Peterborough Combined Authority (C&PCA), Cambridgeshire and Peterborough Local Skills Report (Cambridgeshire and Peterborough Skills Advisory Panel, March 2021), found that the highest proportion of hard-to-fill vacancies in the region were at the elementary level, followed by skilled trades, administrative/clerical roles and associate professionals. It found that hard-to-fill vacancy challenges were most pronounced in Peterborough, although Cambridgeshire had reported difficulties at both ends of the skills continuum (sales/customer service staff and professionals). Additionally, the report found a clear link between reported skills shortages and vacancies, with similarities between the sectors that have the reported hard-to-fill job vacancies in Cambridgeshire. This includes the Education, Health & Social Work, Hotel & Restaurants and Construction sectors, where more than 10% of businesses reported a skills shortage issue.

2.8 The Cambridgeshire and Peterborough Independent Economic Report (September 2018) had previously identified that the Cambridgeshire and Peterborough economy had demonstrable specialisms and strengths in the following strategic growth sectors:

- Agriculture and Food (Agri-tech)
- Life Sciences
- IT and Digital
- Manufacturing, Advanced Manufacturing and Materials
- Logistics and Distribution
- Education and Professional Services

2.9 In addition to these six growth sectors, the C&PCA have identified two additional priority sectors: Health and Social Care and Construction. These priority sectors of the economy are used to determine the focus of the C&PCA Skills Strategy, 'Cambridgeshire and Peterborough Combined Authority Skills

Strategy Framework Final Developing Talent – Connecting the Disconnect' (2021). The Skills Strategy, and supporting Skills Report, includes the following regional and local interventions targeted at the construction industry:

- Provide sector specific support to continue to deliver the CITB Construction Hub. To provide on-site training for workers from declining sectors and military veterans.
- £450,000 into a Construction Apprenticeship Academy with CITB in Kings Lynn and West Norfolk.
- £2,500,000 to fund a further Construction Academy with Cambridge Regional College, in Huntingdon.
- Training facility at Alconbury Weald Enterprise Zone to deliver technical, advanced and higher vocational skills in manufacturing, engineering, advanced construction and high technology industries.
- The College of West Anglia partnership with Anglian Water to offer a level two construction and level three engineering course at the Wisbech campus, providing the skills and knowledge to make students work-ready. The Anglian Water @one Alliance (collaborative organisations of consultants and contractors working together to deliver more than half of Anglian Water's capital investment programme) is supporting the level 3 engineering course, and has a programme of works valued at £1.2bn over the next 5 years, known as AMP6. The pre-apprenticeship programme offers students who complete the course a guaranteed job interview with Anglian Water and its partner companies. This helps to ensure that valuable skills and knowledge remain within the region.
- The Skills Brokerage offered to all schools in the localities will support STEM promotion through activities, careers promotion and employer engagement links with local businesses. This includes action to embed the importance of STEM subjects in schools/colleges to raise awareness of jobs/qualifications that are fundamental to jobs within priority sectors including: manufacturing, engineering, life sciences, digital IT and construction.
- The creation of a Skills Talent & Apprenticeship Recruitment (STAR) Hub. A "one stop" shop making it easier for businesses, training providers and local talent to understand the skills landscape. The creation of a specialist activity building relationships between businesses, providers and learners. This will unlock apprentice levy funding within large firms and help it flow down more effectively to SMEs in supply chains and sector clusters. This will create a highly functional local levy marketplace that significantly increases the quantity and quality of apprenticeships.
- University of Peterborough – ARU Peterborough is a partnership between the C&PCA, Peterborough City Council and Anglia Ruskin University (ARU). The University offers technical qualifications to help meet the demand of local industries and to grow local talent for jobs of the future. The new university is currently offering courses in Engineering

and the Environment (including Environmental Management) which offer a path into the built environment and construction sectors.

Construction industry capacity and housing delivery implications

2.10 As part of the Greater Cambridge Partnership, South Cambridgeshire and Cambridge are working with partners across education, training and business to deliver apprenticeships, and encourage uptake of training opportunities. 'The first conversation' consultation document noted that the GCSP is considering: "how developers can support employment, skills development, apprenticeships, and other education and training opportunities in both during construction and on completion of a development, to make a direct contribution to the local community."

2.11 There may be a role for the new Local Plan to support such initiatives further through statutory policy. Local Plans elsewhere have included policies aimed at increasing apprenticeships and boosting local construction skills. For example, the London Borough of Camden require all developments of 10 or more new homes or commercial developments with a capacity of 1000m2, to submit an Employment and Training strategy (sometimes referred to as an Employment and Skills Plan). This typically sets out the steps that will be taken to deliver on agreements, including:

- construction apprenticeships
- local employment during the construction phase
- construction work experience opportunities
- end use apprenticeships
- local procurement opportunities

2.12 If this is not feasible, the two Councils operate significant joint ventures aimed at delivering new homes in Greater Cambridge in partnership with the private sector. This offers opportunities to encourage apprenticeships and skills development through the procurement process when developing publicly owned land.

Alternative options available to increase housing delivery

Modern Methods of Construction (MMC)

2.13 Modern Methods of Construction (MMC) can help address labour market and skills issues, as outlined in the 'Planning for the Future' Housing White Paper (MHCLG, August 2020), where Government made a commitment to:

> "...support innovative developers and housebuilders, including small and medium sized enterprises (SMEs) and self-builders, those looking to build a diverse range of types and tenure of housing, and those using innovative modern methods of construction (MMC)"

2.14 A House of Commons Library briefing paper, 'Tackling the under-supply of housing in England' (January 2021), summarised some of the national initiatives aimed at addressing the construction sector labour market and skills shortages. For example, under the heading 'Innovation in construction', the paper notes that utilising modern methods and materials can mean more homes being produced quickly, cost-effectively and to modern standards. Suggesting this form of construction could increase the life-span of housing, improve energy efficiency and reduce the need for major repairs.

2.15 The paper notes that the UK construction industry has been accused of being slow to adopt technological and other innovations which are frequently used by house building industries in other countries. These innovations include:

- Increased use of data and data management in the design and planning of house building. This formed an important part of the Construction strategy 2016-20.
- Innovation in the way the workforce and businesses involved in house building are organised might provide a way to standardise house building and make the industry more efficient, according to Innovate UK.
- Mass produced modular components are a feature of commercial building but are less regularly used in house building in the UK.

2.16 These methods can reduce the time required to build houses and require less manpower. They also help to ensure standardised levels of quality and durability. Adopting MMC can also lead to increased productivity in the sector, meaning that fewer people are required to build the same number of houses.

2.17 In 'The Real Face of Construction' (CIOB, 2020), the CIOB considered the implications of MMC on future training requirements:

> "The trends suggest the production methods of industry are set to undergo a radical shift, with far more work being done offsite. This has major implications for training…The most obvious is that the blend of skills needed nationally will change, as factory production is adopted. CITB's analysis…suggests there could be a shift of between 44% and 60% in skilled trades and manual occupations to working offsite. This will not be a one-off change. Assuming offsite is widely adopted, there will be rapid development as it matures."

2.18 The CIOB also identified a need for training incentives:

> "There is a need to provide strong incentives to encourage training. This is particularly true of construction where the workforce can be highly mobile and move firm to firm, or into self-employment. This can disincentivise firms from training, as the opportunities for free riders are great. We suggest that it may be appropriate as far as possible and practicable to encourage training through obligations embedded in the system of public procurement. The dynamism of change that appears to be facing construction should be grasped as an opportunity to deliver smarter, more effective training and seen as a springboard to create a more diverse and engaged workforce."

2.19 The MHCLG Joint Industry Working Group on Modern Methods of Construction has defined 7 categories within MMC to provide comprehensive and future proofed terminology for MMC used in house building. Categories 1-5 include off-site and near-site pre manufacturing, for example 3-D structural units such as apartment spaces or bathroom pods, or 2-D panels and cladding. Categories 6-7 include site-based process improvements, for example innovations that reduce labour demands, supervision and delays on site through improved processes or technologies.

MMC housing delivery implications

2.20 There are three principal ways in which MMC could increase delivery rates:

- By increasing the speed of securing planning permission and the speed at which construction can commence.
- By directly increasing the speed that new homes are built through improvements to the timescales of construction.
- By increasing the sales rates of new homes, indirectly leading to higher build out rates as developers respond to higher demand and build out faster.

2.21 Speed of securing planning permission: there is no specific policy within the NPPF that supports the approval of schemes that use MMC, but aspects of MMC are likely to improve the chances of approval indirectly, for example by:

a) Demonstrating improvements in energy efficiency and sustainability of new homes which can be achieved more easily and consistently using MMC.
b) Creating new job opportunities, especially if an offsite factory or facility is established to deliver local scheme(s).
c) Reducing construction costs with knock on improvements to viability and ability to fund policy requirements such as affordable housing or infrastructure contributions.
d) Meeting Local Plan policy requirements in relation to MMC and thereby improving prospects of a swift approval.

2.22 Speed of construction once on site: the key benefit of MMC is the potential for these methods to reduce the time taken to build out new homes. There is evidence in support of a range of ways that construction time can be reduced through MMC:

a) Efficiency and productivity improvements can be made through off-site manufacture which can reduce the time involved in construction. The NHBC found that house builders reported that faster constructions were being realised in practice; but that housing associations were less convinced, although they did report that a weathertight envelope was achieved quicker with the use of MMC.
b) Reduced delays on-site. On-site delays to building are caused by a range of factors with labour/skills shortages being a key problem. MMC can reduce labour demands and therefore reduce delays caused by shortages or poor productivity.
c) Research by the NHBC in 2015 found that the majority of large and medium sized house builders had used MMC (98%), with the most common take up being the use of prefabricated window sets, chimneys and dormers, followed by panellised systems. To some extent, MMC has been mainstreamed with the efficiency benefits likely to be reflected in most schemes.
d) The NHBC found only limited use is being made of volumetric construction (large modules fully fitted out on-site) and pods (room-sized modules normally bathrooms or kitchens) with 6% and 7% of organisations having used these methods respectively one or more times in 2015. Use tends to be concentrated in apartment buildings in London and the South East.

2.23 Sales rates: MMC offers the potential to expand the range of house/ apartment typologies and provide choice within the market. Greater choice is usually considered a good strategy for improving overall delivery of new homes, demonstrated by traditional housebuilders parcelling up larger sites and delivering homes under different brands.

2.24 New typologies provide choice and open up new market segments which may appeal to a new set of buyers or renters. This can contribute to higher build out rates in an area, with different development schemes appealing to different types of buyers and expanding the market. However, there is also the risk of buyer/ investor conservatism and a reluctance to take up new typologies (where they are particularly innovative or different to more traditional house types and designs) which could limit build out rates.

Build to Rent

2.25 Build to Rent is a distinct asset class within the private rented sector and has been defined in the National Planning Policy Framework to simplify its treatment within the planning system.

2.26 The NPPF definition of Build to Rent (Annex 2, NPPF 2021) states that it is: Purpose built housing that is typically 100% rented out. It can form part of a wider multi-tenure development comprising either flats or houses but should be on the same site and/or contiguous with the main development. Schemes will usually offer longer tenancy agreements of three years or more and will typically be professionally managed stock in single ownership and management control.

2.27 MHCLG has also set out practice guidance and policy for developing Build to Rent.

> ‘As part of their plan making process, local planning authorities should use a local housing need assessment to take into account the need for a range of housing types and tenures in their area including provisions for those who wish to rent. Specific demographic data is available on open data communities which can be used to inform this process. The assessment will enable an evidence-based planning judgement to be made about the need for build to rent homes in the area, and how it can meet the housing needs of different demographic and social groups. If a need is identified, authorities should include a plan policy setting out their approach to promoting and accommodating build to rent. This should recognise the circumstances and locations where build to rent developments will be encouraged – for example as part of large sites and/or a town-centre regeneration area’.

2.28 The guidance also sets out management and property standards for Build to Rent and the quantum and discount from market rent of its affordable product ‘Affordable Private Rent’ which will usually form 20% of the scheme’s units. Affordable housing provided in Build to Rent schemes is provided as Affordable Private Rent (minimum 20% discount on market rents) and, unlike other forms of affordable housing, does not need to be managed by a registered provider. In January 2020, there were 152,071 Build to Rent homes in the UK, including both London and the regions, of which 40,181 were complete, 35,415 were under construction and 75,475 were in planning.

BTR housing delivery implications

2.29 There are three principal ways in which BTR could increase delivery rates:

- By increasing the speed of securing planning permission and the speed at which construction can commence.
- By directly increasing the speed that new homes are built through improvements to the timescales of construction.
- By increasing the sales rates of new homes, indirectly leading to higher build out rates as developers respond to higher demand and build out faster.

2.30 Speed of securing planning permission:

a) NPPF includes a definition of BTR which provides greater certainty for developers and planning authorities. It is also exempt from the affordable home ownership contribution of 10% and is expected to deliver a different form of affordable housing (known at affordable private rent). This policy support may help to ensure schemes can be assessed and permitted efficiently (compared to the national policy context pre NPPF 2019). Practice guidance on BTR provides further certainty and clarity for this type of development which should improve the speed at which schemes are considered and approved (if compliant with policy).
b) Local Plan policies which provide a framework for BTR and are supportive of development which meets plan policies are also likely to ensure planning consents are secured more efficiently and development can commence faster.

2.31 Speed of construction once on site:

a) BTR schemes are likely to be 'pre-sold' to investors, reducing the risk to developers and allowing them to be built out rapidly (in a similar way to the way buy to let investors de-risked apartment development in the early 2000s onwards). In London, Buy to Let landlords were the largest category of buyers in 2006 and 2013, accounting for 45% of sales in 2006, but by 2019 accounted for just 25%. Meanwhile, the share of Build to Rent purchasers increased threefold from 9% in 2006 to 26% of new home sales in 2019. Since January 2009, 34,900 BTR homes have started construction and 21,990 have been completed in London (by January 2020). Institutional investment is a driving force behind the expansion of Build to Rent. It is seeking a long-term income stream to provide, for example, a return for pension funds. Build to Rent is based on a different financial model to conventional for-sale housing. Research suggests that institutional investors globally are planning to increase their allocation to real assets. An Aviva report revealed that 49% of insurance companies and 37% of pension funds plan to increase their allocation to real asset investment strategies.
b) These schemes may be more likely to come forward on complex urban sites which could work against speed given complexities with these sites but BTR, particularly apartment type development, may use modern methods of construction which allow acceleration of build out. Volumetric construction (large modules fully fitted out on-site) and pods (room-sized modules normally bathrooms or kitchens) tends to be concentrated in apartment buildings, particularly in London and the South East, but has the potential to speed up construction within the area where BTR schemes are suited to MMC.

2.32 Speed of sales/ appetite for investment:

a) There is limited BTR at present within the area which suggests there is likely to be pent up demand for quality rented products. Investors are likely to favour the Cambridge location given its buoyant rental market that will provide funding certainty for rapid build out of schemes.
b) BTR is associated with premium rents (c.15% above average rents) because of the higher quality product and professional management. This will constrain demand to some extent because not all renters will be able to afford this product.
c) Emerging models of BTR also include family homes on suburban schemes, tapping into a new market and therefore expanding demand and the potential to achieve higher build out rates, for houses as well as apartments.

Custom build and Self-build

2.33 The National Custom and Self-Build Association (NaCSBA) define custom build and self-build as follows:

a) Custom Build - This is when people commission the construction of their home from a developer/enabler, builder/contractor or package company. With 'custom build' the occupants usually don't do any of the physical construction work but still make the key design decisions. Exact proportions are not known but based on the NaCSBA's understanding of the market, around a 60 per cent of all private homebuilding is currently delivered this way.
b) Self-Build - This is when someone gets involved in, or manages, the construction of their new home (with or without the help of sub-contractors). At

present around 40 per cent of projects are defined as ‘self-build’ (according to the NaCSBA).

2.34 Section 9 of the Housing and Planning Act 2016 which amends the Self-build and Custom Housebuilding Act 2015 defines self-build and custom housebuilding as: “the building or completion by (a) individuals, (b) associations of individuals, or (c) persons working with or for individuals or associations of individuals, of houses to be occupied as homes by those individuals.”

2.35 The Self-Build and Custom Housebuilding Act (as amended) places a statutory duty on South Cambridgeshire District Council and Cambridge City Council to meet demand identified through their respective Self-Build Registers. The Self-Build and Custom Housebuilding Time for Compliance and Fees Regulations requires planning permissions to be issued within three years of the end of each Base Period. If the Councils fail to satisfy this statutory duty, planning appeals for serviced plots may be attributed significant or substantial weight in the planning balance. Appeal decisions have highlighted the importance of using secondary data sources to supplement Council-held registers e.g. relevant local/regional housing studies; Buildstore data; and NaCSBA data.

2.36 On 20 April 2021 the Government published its Self and Custom Build Action Plan including, at the request of the Prime Minister, an independent review on significantly scaling up the sector to be undertaken by Richard Bacon MP. The Action Plan highlighted 3 main barriers to growth of the sector in England:

1. Access to finance
a) Mortgage finance - Stage payment mortgages usually required for self and custom build projects typically come through smaller lenders usually at higher rates and lower loan to value. This creates a barrier to first time buyers, younger people and those who do not already have substantial capital.
b) Developer finance - For custom build developers bringing forward multi plot sites.
2. Access to land - Not enough serviced plots (plots with planning, utilities and access) suitable for self and custom build are available.
3. Expertise/knowledge gap - This is a nascent and novel sector. The availability of consultancy expertise is limited and the wider knowledge base of self and custom build is low, which can act as a barrier to self and custom build homes being delivered.

Custom Build and Self-Build housing delivery implications

2.37 The NaCSBA has prepared a, Government-funded, Right to Build Toolkit. The toolkit includes a series of briefing notes and case studies that detail interventions that Councils, developers and landowners can consider to aid delivery and encourage higher levels of self-build and custom build. The toolkit includes a section on Planning and Land which addresses several aspects related to delivery rates:

a) Controlling the build-out of projects - Build-out can be enforced in a range of ways such as conventional planning conditions and obligations that control noise, hours of operation and construction traffic, and planning obligations, covenants or deeds of sale for individual serviced plots that can impose start

on site dates, build out-timescales and project completions. All of these can typically be imposed when planning permission is granted and/or when the plots are sold. There are a number of measures available to Councils, landowners and developers to support the timely delivery of self-build and custom build homes:

– Implementation measures (for example separate self-build construction traffic access, shared storage and site facilities, submission of construction programmes to master developer for checking);
– monitoring (regular building inspections);
– exclusions (for example prohibiting resale/sub-division, owner occupation clauses on completion and/or evidence for signed building contracts prior to purchase);
– managing non-compliance (for example compliance bonds and fines).

b) Design Codes and Plot Passports –

– Design Codes can be applied to single plots, but are most useful for larger multi-plot projects. They can be produced by either the local planning authority, or by a developer/landowner and they can be implemented through planning permissions, and Local Development Orders, as well as through neighbourhood planning…a Design Code should be as light touch as possible, so that it does not stifle the ability of private homebuilders to build innovative and creatively designed homes. Overly prescriptive Codes will be resource intensive to prepare. They can also add to the costs of new development and undermine viability. Some private homebuilders may also be put off purchasing a plot if their scope for an individual design is too limited. Generally speaking, the more restrictive the Code, the more challenging it can be to sell plots. A good Design Code should allow for design variation, creativity, innovation and originality; it will also specify what is mandatory and what is optional. Where possible they should be style neutral so they can deliver contemporary or traditional architecture and they should also allow for modern methods of construction.
– A Plot Passport is a simple and succinct summary of the design parameters for a given plot. They add value by acting as a key reference point for the purchaser, capturing relevant information from the planning permission, design constraints and procedural requirements in an easily understandable and readily accessible format. Most are between one and four pages long and form part of the marketing material available for the plot. The passport clearly shows the plot location, the permissible building lines and side spacing requirements, proximity constraints to neighbouring buildings and the part of the site where a new house can be constructed (i.e. the developable footprint). There is usually also a building height restriction. Passports are very clear about the number dwellings that can be built (generally only one) and any other pertinent details, including car parking and access location etc. The choice of finishing materials, fenestration and roof shape is usually left to the plot owner. Most are kept as simple as possible so that people can evaluate the various potential plots and work out which suits them best.

c) Ensuring delivery on developments that have planning permission –

– Councils nationwide typically use conditions and planning obligations in combination to secure the delivery of custom and self-build homes. For example, they may stipulate under what conditions self-build plots must be marketed before they are released for market housing in the event plots don’t

sell. Some Councils have prepared specific self-build and custom build Supplementary Planning Documents as means of speeding up these processes and providing homebuilders with clear guidance on how the process shall be undertaken by the Local Planning Authority – see Teignbridge District Council Custom & Self-Build Housing SPD and simple plain English guide.

- For Council-owned land local authorities can also impose strict build out requirements. For example, a council could build in an ability to claw back a plot (with penalties and administrative costs) if the home has not been constructed within a specified period (typically two years from receiving full planning permission). Owner occupation time limit clauses can also be imposed. This practice is often used by private landowners and is widely employed abroad.
- Where a council has imposed a requirement for plots to be marketed it may also wish to consider whether this should be further enforced to discourage gaming. One way this could be done is by restricting occupation of a proportion of market homes on the site (for example 50 per cent) until plots have been appropriately marketed for immediate purchase. Such an approach would however depend upon the size of the site and complexity of the infrastructure and any specific site circumstances. Councils with an adopted Community Infrastructure Levy could apply the above restrictions and also look to impose pre-commencement conditions. For example, asking for a signed Community Infrastructure Levy 'Form 4: Transfer of Liability' (and possibly a Demand Notice) for each plot that is to be custom build.

d) Affordable housing and Exception Sites - The delivery of private homebuilding through affordable housing policies is now well established in Local Plans. The Government's recent consultation on the 'Right to Build' also acknowledges that councils can allocate specific sites in their Plans with a requirement that a proportion of the development is delivered for affordable private homebuilding, and then work with a housing association or another party (such as a Community Land Trust) to bring forward suitable opportunities. his approach further diversifies the housing supply and appeals to a wider spectrum of potential purchasers. In addition, there are examples nationally where Councils have supported local residents on the housing waiting list to bring forward new self-build for example through 'shell finish' and ground lease.
e) How Neighbourhood Planning can encourage opportunities - Community Right to Build Orders and Neighbourhood Development Orders (and Local Development Orders prepared by Councils) can prescribe the majority of development parameters and replace a planning application process with a prior approval process (linked to a simple design code or plot passport). Orders can specify what type of development will be acceptable and communities can work with local landowners, developers and custom build enablers to prepare Orders to bring forward specific projects for local people. Once adopted (following a referendum) they remove the need for anyone to apply to the council for planning permission if it is for the type of development covered by the Order.
f) Viability considerations - When undertaking viability assessments councils should have regard to the different forms and scales of private homebuilding that might come forward in their area. There are broadly four types of site:

- Larger scale custom build developments (typically projects of 50+ homes, though they could extend to hundreds and even thousands of homes)
- Medium sites (typically projects of between ten and 50 homes)
- Small sites (typically projects of between two and ten homes)
- Sites for single homes or parcels of land for building groups.

2.38 The traditional speculative volume housebuilder model secures its competitive advantage from economies of scale and easier access to finance. This is different to the multi-unit private homebuilding model. In the latter model the competitive edge is provided by offering improved consumer choice and through reduced levels of development risk and capital employed in the project because plots are sold to private homebuilders and building costs are paid as a site is built out.

2.39 Larger 'custom build' projects, where an enabler creates permissioned serviced building plots and works with several home manufacturers to build homes for private homebuilders, are likely to be most viable when they provide at least 100 plots. This scale achieves an optimum balance between offering sufficient consumer choice on a site and delivering a reasonable return on investment for the home manufacturers involved. For this model, home manufacturers typically require at least 10 to 15 homes per site to enable them to recover their set up costs, and between five and 15 home manufacturers are needed to offer consumers a reasonable range of home options. At this scale the home manufacturers can then generate a profit margin of about five to ten per cent – their margins are lower because they don't have any sales risk or significant capital requirements, as their private homebuilder clients pay them in stages. Bigger parcels of land can also be set aside to provide a mixture of different forms of private homebuilding (for example serviced plots, shell homes and design and build options), and these will all have different viability constraints.

2.40 Most larger sites should be able to take advantage of economies of scale, particularly with regard to the cost of servicing the plots, and administration and legal costs. This is particularly the case where the provision of plots is conceived as part of a mix of housing types and uses. For example, if a site is delivering a proportion of market and affordable housing (including starter homes) and, perhaps commercial uses, they can share development costs (including the provision of services and other infrastructure) and help improve the viability of the custom build element of a scheme.

2.41 Custom build developers and enablers function more like contractors, preparing sites and plots and then (depending on their business model) building homes on behalf of their clients. This means they can operate at a lower profit margin because they do not build homes speculatively. Their Return on Capital Employed (ROCE) is likely to be higher because they have lower marketing costs and overheads and use less capital to build the homes. In the private homebuilding model clients finance their homes as they are constructed so the capital outlay for the enabler is lower. Any lost 'opportunity costs' arising from not building houses can also be partly mitigated by custom build enablers, builders, developers and landowners constructing shell homes or providing a full build out service when they sell the plots (this can be mandatory or optional). This means that while sales incomes will be lower for multi-unit

custom build sites, ROCE is likely to be higher compared to speculatively built market housing.

2.42 The NaCSBA include typical self-build timeframes drawn from examples nationally and in continental Europe that can be factored into self-build plot trajectories for future housing land supply position statements (in advance of specific Greater Cambridge self-build delivery rates data):

- Construction start on-site – can be required within a specified period, for example **4-12 months** (after purchasing a plot)
- Project completion – project end dates can be set that specify when homes must be completed and occupied, for example **18-24 months** (from construction start).
- Post completion additional controls - to manage when external landscaping, fencing and boundary treatment must be completed, for example **3 months** (following building completion)
- This equates to a **~1.5-3** year delivery timeframe (post plot purchase) for final completion.

2.43 On larger developments the inclusion of some serviced plots/custom-build alongside more conventional market homes has the potential to speed up the overall rate of sales – as the builder will be offering more choice to potential purchasers and may provide technical assistance and oversight to homebuilders in their role as the master developer.

2.44 The recent House of Commons Housing, Communities and Local Government Committee ('The future of the planning system in England', House of Commons May 2021) considers the Government's future reforms to the planning system announced in August 2020. The committee's report included two suggestions of relevance to self-build and custom build: (1) utilising the Government's proposed automatic permission in principle in growth areas to additionally identify sub-areas for self-build; and (2) Councils to ringfence land for self and custom build. Both suggestions could be implemented through Local Development Orders and Neighbourhood Development Orders and/or allocations in the Local Plans or Neighbourhood Plans without the need for new legislation or policy changes.

Other specialist forms of housing

2.45 Other forms of specialist housing (including student accommodation, older persons housing, homes for disabled people) have the ability to cater to a wider spectrum of society and can contribute to housing delivery whilst meeting specialist local housing needs.

2.46 Housing for disabled people can include, but are not limited to, people with ambulatory difficulties, blindness, learning difficulties, autism and mental health needs, which may generate a range of housing requirements which can change over time. To enable disabled people to live more safely and independently, local planning authorities will need to consider their variety of needs at the plan-making stage.

2.47 Where an identified need exists, plans are expected to make use of the optional technical housing standards (footnote 49 of the National Planning Policy Framework, July 2021) to help bring forward an adequate supply of accessible housing. In doing so planning policies for housing can set out the proportion of new housing that will be delivered to the following standards:

- M4(1) Category 1: Visitable dwellings (the minimum standard that applies where no planning condition is given unless a plan sets a higher minimum requirement)
- M4(2) Category 2: Accessible and adaptable dwellings
- M4(3) Category 3: Wheelchair user dwellings

2.48 Accessible and adaptable housing is typically delivered as proportion of the market and affordable homes on-site. Planning policies for accessible housing need to be based on evidence of need, viability and a consideration of site specific factors.

2.49 Housing for older people is generally a growing sector due to the demographic changes and the aging population and this form of housing would have some potential to help boost housing delivery rates by offering alternative housing types within a new development thereby increasing the options available to buy or rent. The sector brings forward two main types of product that are defined in the Planning Practice Guidance (Paragraph: 010 Reference ID: 63-010-20190626. Revision date: 26 June 2019):

- **Retirement living or sheltered housing**: This usually consists of purpose-built flats or bungalows with limited communal facilities such as a lounge, laundry room and guest room. It does not generally provide care services, but provides some support to enable residents to live independently. This can include 24 hour on-site assistance (alarm) and a warden or house manager.
- **Extra care housing or housing-with-care**: This usually consists of purpose-built or adapted flats or bungalows with a medium to high level of care available if required, through an onsite care agency registered through the Care Quality Commission (CQC). Residents are able to live independently with 24 hour access to support services and staff, and meals are also available. There are often extensive communal areas, such as space to socialise or a wellbeing centre. In some cases, these developments are known as retirement communities or villages - the intention is for residents to benefit from varying levels of care as time progresses.

2.50 There are other types of specialist housing designed to meet the diverse needs of older people, which can also include:

- **Age-restricted general market housing**: This type of housing is generally for people aged 55 and over and the active elderly. It may include some shared amenities such as communal gardens, but does not include support or care services;
- **Residential care homes and nursing homes**: These have individual rooms within a residential building and provide a high level of care

meeting all activities of daily living. They do not usually include support services for independent living. This type of housing can also include dementia care homes;

- **Senior co-housing communities**: Senior co-housing communities are created and run by residents, based on the intention to live with a group of people of a similar age. The sites often consist of self-contained private homes as well as shared community space. Some communities offer an additional option for informal care.

2.51 There is a significant amount of variability in the types of specialist housing for older people. The list above provides an indication of the different types of housing available, but is not definitive. Any single development may contain a range of different types of specialist housing.

2.52 Student accommodation is also an important part of the Greater Cambridge housing market given that Cambridge has two universities – University of Cambridge and Anglia Ruskin University – and a number of higher education establishments.

Specialist products housing delivery implications

2.53 In 2019 the Planning Practice Guidance was updated with respect to how older people's housing and student accommodation is counted in the housing land supply. Previously only C3 dwellings were counted, but it now states:

"Local planning authorities will need to count housing provided for older people, including residential institutions in Use Class C2, as part of their housing land supply. This contribution is based on the amount of accommodation released in the housing market."

2.54 Furthermore the section in the PPG on housing for older and disabled people states "Plan-making authorities will need to count housing provided for older people against their housing requirement. For residential institutions, to establish the amount of accommodation released in the housing market, authorities should base calculations on the average number of adults living in households, using the published Census data." The methodology for doing this is set out in the Housing Delivery Test Measurement Rule Book.

2.55 The PPG also states:

"All student accommodation, whether it consists of communal halls of residence or self-contained dwellings, and whether or not it is on campus, can in principle count towards contributing to an authority's housing land supply based on:

- the amount of accommodation that new student housing releases in the wider housing market (by allowing existing properties to return to general residential use); and / or
- the extent to which it allows general market housing to remain in such use, rather than being converted for use as student accommodation.

This will need to be applied to both communal establishments and to multi bedroom self-contained student flats. Several units of purpose-built student accommodation

may be needed to replace a house which may have accommodated several students.

Authorities will need to base their calculations on the average number of students living in student only accommodation, using the published census data, and take steps to avoid double-counting. The exception to this approach is studio flats designed for students, graduates or young professionals, which can be counted on a one for one basis. A studio flat is a one-room apartment with kitchen facilities and a separate bathroom that fully functions as an independent dwelling."

2.56 So in addition to C2 housing helping to meet housing needs of the population and increase the absorption rate, it also can count in the housing supply and towards meeting the housing requirement. Older peoples housing can play an important role in development scheme diversification, especially for strategic scale sites where such development may have opportunities to be located close to new local or district centres with a higher incidence of local facilities, leisure and convenience retail.

Covid-19 implications for housing delivery

2.57 Finally, it is useful to consider how Covid-19 may influence housing delivery in Greater Cambridge in the future. Based on the detailed analysis in **Appendix 8**, there are several ways in which the global pandemic might influence the delivery of new homes and communities in the Greater Cambridge area.

2.58 The impact on the economy and housing market will impact upon site viability. Sales rates amongst market homes will be lower and certain segments (such as first-time buyer and mid-market buyers) are likely to be weaker, investors' appetite is likely to be more uncertain, but there is likely to be an increased demand for private renting. Public intervention is likely to be required to bring sites forward in the short term. Overall, the short-term impact on delivery rates is likely to be negative however Greater Cambridge may fair better than other locations because of its ability to offer the attributes that buyers and renters value (such as more space and choice of suburban and rural locations) and because of its economic strength in sectors that have been resilient for example technology and life sciences.

2.59 More sites and existing buildings may become available for redevelopment in city and town centres as companies reduce their office and retail footprint. Some companies have already taken the opportunity to reduce the number of offices they have, consolidating staff in fewer locations and reducing costs. Others will use the opportunity to rethink how they work and use space with most commentators expecting a permanent shift towards greater homeworking or a hybrid mix of office and home.

2.60 Short term tenure shifts as demand for home ownership is constrained, increased demand for private renting and subsidised (rented) housing in the short term and likely to last as long as the economy remains depressed. Tenure shifts may be supported by Government funding to enable Registered Providers to buy up sites and stock from private developers to ensure delivery continues and support economic recovery. Delivery of affordable housing and

commitment of Government funding for 2021-2025 will enable the build out of sites and affordable homes could be front loaded to support delivery rates.

2.61 Rising levels of unemployment and financial pressure, particularly on low income households. A large number of households in the Private Rented Sector (PRS) are living precariously (struggling to afford their rents and living in relative insecurity on short term tenancies). Likely increased homelessness pressure as households in arrears are eventually evicted from PRS properties (after possession proceeding delayed during lockdown). Demand for affordable housing likely to increase and potentially demand for purpose build PRS developments as households delay home ownership plans. However, Build to Rent is likely to attract premium rents so unlikely to meet the needs of struggling renters. Overall, increased demand for rental market likely to underpin demand for new PRS products, particularly in Cambridge centre, supporting delivery rates.

2.62 Preference for locations from home buyers and renters may change in the short and medium term. Households may place higher value on suburban and green locations, for those who can afford it, based on their experience of spending more time at home and increasing values placed on access to outdoor space. This is likely to favour delivery in the Greater Cambridge area given its locational attributes compared to developments in other areas though the scale of this demand is uncertain.

2.63 There may be a greater focus on the technology available in new homes (smart homes), including broadband quality, energy efficiency and air quality. This will matter in all tenures, but those with higher incomes and wealth will be able to exercise choice and may be prepared to pay more to secure these attributes. Local authorities and Registered Providers may wish to improve standards to secure these attributes in their new housing stock, recognising the importance of these standards to the wellbeing of households who occupy these homes.

2.64 Similarly, increased time spent in the home and the likelihood that some workers will increase their tendency to work from home on a more regular basis may mean that many households desire more space within their homes. This space may be needed to work or study and ability to use homes flexibly is likely to become more important. Again, this matters in all tenures but those with higher incomes and resources are likely to be able to exercise choice in the market.

2.65 In the private and social rented sectors, the availability of space in the home is closely linked to household size. The Government may come under further pressure to remove the ‘bedroom tax’ to allow households in the social/affordable rented sector to occupy more space. Those in the PRS and claiming housing benefit are subject to the same rules though it is difficult to envisage significant increases in LHA rates to allow households to occupy extra space.

2.66 Households and planners are likely to pay greater attention to greenspace, gardens and outdoor space and/or accessibility to nearest outdoor space. Some households may be able to afford to exercise choice in the homes they buy or move to; but planners will need to ensure that these attributes are

available to households whichever tenure they occupy. Space is a premium within Cambridge City and the experience of the pandemic combined with greater flexibility to work from home may encourage some shift away from the city centre in favour of more suburban and rural locations in the Greater Cambridge area.

2.67 Relatedly, there will be pressure to improve housing and environmental quality including air quality, space standards, tackling overcrowding and ensuring access to green space for higher density housing. These pressures and trends favour the Greater Cambridge area because of its locational attributes including its attractive environment and potential to offer space (particularly in new communities).

2.68 Public authorities have a short-term opportunity to tap into and grow community capacity which has been formed or revealed during the pandemic. Numerous neighbourhood support groups have been formed and there is likely to be demand to build and grow community centres in neighbourhoods. Community or neighbourhood centres in suburban areas and neighbourhoods outside of the town centre have the opportunity to thrive as more workers are based from home or work from home more frequently. Flexible work spaces and a mix of retail and community uses may be more sustainable and viable than in the past.

Survey and workshop feedback

2.69 Most respondents to the survey were not enthusiastic for custom and self-build housing owing to the lack of tried and tested frameworks ensuring that plots are built out. In addition, buyers may be deterred by the difficulty in securing self-build mortgages.

2.70 Conversely, respondents reported that they found high demand for specialist housing across the Greater Cambridge area, particularly student accommodation and older person's housing including supported living. An ageing population and greater care needs are driving a much higher need for older people's housing, this is being exacerbated by the current undersupply of specialist housing, particularly residential and nursing care facilities.

2.71 One strategic land promoter felt strongly that the Local Plan could go further to meet the need for older person's housing. Some respondents suggested that older person's housing could be built in areas less reliant on adjacency to employment centres given the different needs of this demographic. Whereas with student housing, there is a definite need for public transport links and proximity to Cambridge City Centre.

2.72 Specialist housing needs to have good access to services such as GPs, transport, retail. It can come forward on strategic urban extensions (SUEs), but it is likely to be delivered later in the construction phasing, even if it runs alongside construction of other housing types. Registered providers stated that it tends to increase delivery on large sites, and it was suggested that on these sites delivering it alongside a community centre could provide an instant start for a new community. As with general housing, there needs to be an attractive market housing offer for older people, and it is often more appropriate on

smaller and medium-sized sites well integrated with the existing settlement to allow people to remain in their local area.

2.73 A key point repeated at the workshop was that participants believe Private Rented Sector (PRS) products on schemes are likely to be brought forward in the early phases of a development to help cash flow and to fund later phases. One of the Registered Providers noted that PRS family housing does help build-out rates in new settlements, and it is being delivered alongside affordable sale products. The pent-up demand for self-build in the South Cambridgeshire area was also noted by a major developer, suggesting that this should also be considered in the housing mix.

2.74 There was inconclusive feedback on whether lead-in times differed for specialist housing. Respondents agreed that there were significant barriers to the delivery of affordable housing caused by site-specific viability issues, a lack of registered providers and available funds and reduced economies of scale, especially in rural areas. The Government's proposal to remove the affordable housing requirement for sites under 40 or 50 dwellings would reduce affordable housing delivery, and some respondents felt that First Homes were geared to a certain market segment, first time buyers, rather than all those looking for affordable homes.

2.75 Brexit and Covid-19 were regarded as highly disruptive both to labour supply and supply chains, which could seriously hinder construction speed. These are therefore both potential issues for the emerging Local Plan, and respondents reported that both Brexit and Covid-19 had already had demonstrable impacts on delivery rates. There was uncertainty, but also optimism, about the role that Modern Methods of Construction could play in increasing delivery. Respondents felt that the Councils could expedite the approvals process and ensure that infrastructure is front loaded to avoid later deliverability issues.

Summary

2.76 The UK construction sector relies upon migrant labour. Following the Coronavirus global pandemic and the UK's exit from the European Union there is evidence that the sector is facing a labour and skills shortage with the biggest impacts likely to affect London and the South East. The UK-born construction workforce is ageing. Combined with issues with training and apprenticeship programmes and falling birth rates, ageing means that there are structural shortages in the sector. In Greater Cambridge, the two Councils are working with the Greater Cambridge Partnership, Cambridgeshire and Peterborough Combined Authority and partners across education, training and business to deliver apprenticeships, and encourage uptake of training opportunities. There are opportunities through the new Local Plan and the Council's procurement processes to help boost construction skills and uptake of apprenticeships locally.

2.77 Technological innovations, such as MMC, can help to ameliorate some of these labour market and skills risks and generate new jobs in off-site manufacturing, whilst at the same time encouraging standardised levels of quality and durability. Adopting MMC can also lead to increased productivity in the sector, meaning that fewer people are required to build the same number of houses.

MMC also offers the potential to expand the range of house/ apartment typologies and provide choice within the market.

2.78 Specialist forms of housing (such as older peoples housing and self-build) and tenures (such as private rented sector) can help to boost delivery rates by offering a wide variety of products to a wider spectrum of prospective renters and purchasers who may be seeking housing other than traditional market homes for sale or affordable housing in the form of affordable rented homes and/or shared ownership.

2.79 Build to Rent schemes are likely to be 'pre-sold' to institutional investors, reducing the risk to developers and allowing them to be built out rapidly, especially in the early phases of larger development. There are limited BTR developments at present within Greater Cambridge which suggests there is likely to be pent up demand for quality rented products. Investors are likely to favour the Cambridge location given its buoyant rental market that will provide funding certainty for rapid build out of schemes.

2.80 On larger developments the inclusion of some serviced self-build plots/custom-build alongside more conventional market homes has the potential to speed up the overall rate of sales. Councils and developers can impose timeframes for progress and the use of design codes or plot passports may help to speed up the consents and construction phases. Research suggests a typical scheme may take ~1.5-3 years (from plot purchase to final completion).

2.81 The impact on the economy and housing market of the Coronavirus global pandemic may impact on aspects of site viability, sales rates and investors' appetite. Public intervention may be required to bring sites forward in the short term. Overall, the short-term impact on delivery rates is likely to be negative however Greater Cambridge may fair better than other locations because of its ability to offer the attributes that buyers and renters value (such as more space and choice of suburban and rural locations) and because of its economic strength in sectors that have been resilient for example technology and life sciences.

3. Windfall sites

3.1 In addition to sites that already have planning permission and sites formally allocated in the Local Plan, a further category of 'windfall' sites will continue to be delivered during the plan period. Such sites are unknown about, but an allowance can be made for their inclusion, justified by an analysis of historic trends and an assessment of whether those trends are likely to continue over the plan period.

3.2 The current windfall sites allowance assumed by GCSP is 130dpa for the City and 220dpa for South Cambridgeshire. The current allowance is based on evidence prepared in 2019 that considered historic completions on windfall sites, and excluding garden land. An explanation of the methodology and the calculations undertaken are published by GCSP in the Greater Cambridge Housing Trajectory and Five Year Housing Land Supply document (November 2019). The data is presented in **Table 1 and Table 2**.

Table 1: Historic windfall completions in Cambridge City from 1 April 2001 to 31 March 2018

Year	Completions on windfall sites of less than 0.5 hectares (excluding garden land)	Completions on windfall sites of less than 0.5 hectares (excluding garden land) – with top two and bottom two figures excluded
2001-2002	93	93
2002-2003	83	83
2003-2004	163	163
2004-2005	141	141
2005-2006	268	-
2006-2007	117	117
2007-2008	257	-
2008-2009	138	138
2009-2010	59	-
2010-2011	92	92
2011-2012	119	119
2012-2013	135	135
2013-2014	73	-
2014-2015	145	145
2015-2016	183	183
2016-2017	239	239
2017-2018	116	116
Total	**2,421**	**1,764**
Average	**-**	**136**

Table 2: Historic windfall completions in South Cambridgeshire from 1 April 2006 to 31 March 2018

Year	Completions on windfall sites of any size (excluding garden land and excluding sites granted permission due to the lack of a five-year housing land supply)	Completions on windfall sites of any size (excluding garden land and excluding sites granted permission due to the lack of a five-year housing land supply) – with top two and bottom two figures excluded
2006-2007	170	170
2007-2008	471	-
2008-2009	170	170
2009-2010	265	265
2010-2011	218	218
2011-2012	200	200
2012-2013	77	-
2013-2014	321	-
2014-2015	319	319
2015-2016	229	229
2016-2017	198	198
2017-2018	142	-
Total	**2,780**	**1,769**
Average	**-**	**221**

3.3 The approach taken when preparing the evidence in 2019 was in line with the 2012 NPPF definition of 'windfall sites' and paragraph 48 relevant to calculating a windfall allowance. The NPPF was updated in 2019 which amended the definition of 'windfall' and changed the NPPF paragraph on windfall allowance (now paragraph 71 in the 2021 NPPF). **Table 3** below shows the differences between the two with text underlined (our emphasis).

Table 3: NPPF 2012 and 2019 text changes

NPPF reference	2012 NPPF text	2021 NPPF text
Glossary definition of 'windfall sites'	Sites which have not been specifically identified as available in the Local Plan process. They normally comprise previously-developed sites that have unexpectedly become available.	Sites not specifically identified in the development plan.
Paragraph number	48. Local planning authorities may make an allowance for windfall sites in the five-year supply if they have compelling evidence that such sites have	71. Where an allowance is to be made for windfall sites as part of anticipated supply, there should be compelling evidence that they will provide a reliable source of

NPPF reference	2012 NPPF text	2021 NPPF text
	consistently become available in the local area and will continue to provide a reliable source of supply. Any allowance should be realistic having regard to the Strategic Housing Land Availability Assessment, historic windfall delivery rates and expected future trends, and should not include residential gardens.	supply. Any allowance should be realistic having regard to the strategic housing land availability assessment, historic windfall delivery rates and expected future trends. Plans should consider the case for setting out policies to resist inappropriate development of residential gardens, for example where development would cause harm to the local area.

3.4 With respect to residential gardens the NPPF now no longer states that the windfall allowance 'should not include residential gardens'; it simply states that plans should 'consider the case' for resisting such development through development plan policies. This means that any new windfall allowance calculated for Greater Cambridge can now include development on residential gardens, should a proposed development on garden land be appropriate.

3.5 New data to 2020 for GCSP area is shown below in **Table 4**. Data is shown including and excluding residential gardens, and the impact of including all years' data in calculating the average as well as the previous GCSP approach of excluding the top highest and lowest two monitoring years to exclude anomalies. Figures have been presented for 2006 onwards as this is the earliest that monitoring data is available for the entire Greater Cambridge area.

Table 4: GCSP windfall data

Year	Cambridge City windfall sites of any size excluding gardens	Cambridge City windfall sites of any size including gardens	South Cambs windfall sites of any size excluding gardens	South Cambs windfall sites of any size including gardens	Total GC windfall sites of any size excluding gardens	Total GC windfall sites of any size including gardens
2006-2007	256	285	170	235	426	520
2007-2008	346	363	471	537	817	900
2008-2009	404	418	170	217	574	635
2009-2010	73	124	265	305	338	429
2010-2011	188	209	218	277	406	486

Year	Cambridge City windfall sites of any size excluding gardens	Cambridge City windfall sites of any size including gardens	South Cambs windfall sites of any size excluding gardens	South Cambs windfall sites of any size including gardens	Total GC windfall sites of any size excluding gardens	Total GC windfall sites of any size including gardens
2011-2012	150	185	200	220	350	405
2012-2013	152	165	77	116	229	281
2013-2014	545	563	321	375	866	938
2014-2015	174	196	319	350	493	546
2015-2016	240	274	229	287	469	561
2016-2017	258	279	198	241	456	520
2017-2018	156	195	142	175	298	370
2018-2019	227	245	132	180	359	425
2019-2020	169	186	216	262	385	448
Total	**3,338**	**3,687**	**3,128**	**3,777**	**6,466**	**7,464**
Average 2006-2020	**238**	**263**	**223**	**270**	**462**	**533**
Average excluding highest and lowest two years	**217**	**242**	**213**	**257**	**426**	**498**

3.6 The PPG recommends that HELAAs set a minimum site size threshold, stating '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. It may be appropriate to consider all sites and broad locations capable of delivering 5 or more dwellings, or economic development on sites of 0.25 hectares (or 500 square metres of floor space) and above. Plan-makers may wish to consider alternative site size thresholds'. The Greater Cambridge HELAA is using the minimum site size threshold of 5 dwellings.

3.7 The NPPF (paragraph 71) states that 'Where an allowance is to be made for windfall sites as part of anticipated supply, there should be compelling evidence that they will provide a reliable source of supply. Any allowance should be realistic having regard to the strategic housing land availability assessment'.

3.8 A simple way of calculating the windfall allowance is to do so by only considering completions from 'small sites' that fall below the HELAA threshold – i.e. sites of 1-4 dwellings in the case of the Greater Cambridge HELAA.

3.9 However, this approach will most likely underestimate actual delivery from windfall sites during the plan period as there will be larger windfall sites currently not known about that will come forward, such as through the redevelopment of sites within Cambridge or the villages that are consistent with policy or through changes of use applications for buildings currently in use. The monitoring data from Greater Cambridge shows that a significant number of windfall completions have been delivered on sites larger than 5 dwellings that would be excluded under this approach.

3.10 Historically Cambridge City Council has used a site size threshold in hectares, rather than dwellings, as the method for calculating the windfall allowance. All completions from windfall sites under 0.5ha in size (rather than under 5 dwellings) were considered. This was on the basis that the Cambridge SHLAA 2013 was considered to have identified all sites of 0.5 hectares or more that were available, suitable and achievable for housing, and therefore it was not expected that any additional sites of this size would come forward as windfall developments. This follows a similar approach to the 'small sites' windfall allowance described above but sets the threshold higher in comparison, particularly as in the Cambridge urban area 0.5ha could yield quite high site capacities. For example, the HELAA typology for Central Cambridge ranges from 75-225 dwellings per hectare, which at 0.5ha could accommodate anywhere in the range of 37.5-112.5 dwellings.

3.11 However, historically South Cambridgeshire District Council has considered all completions on windfall sites, without applying any threshold either in terms of numbers of dwellings or site size. This is because the South Cambridgeshire SHLAA 2013 only considered and assessed sites submitted to the Council, rather than undertaking a complete assessment of the whole district. The Council used the SHLAA primarily as a tool to identify site options for potential allocation in the Local Plan and not as an urban capacity assessment. The Council therefore expected windfall sites to come forward in villages throughout the plan period.

3.12 It is important to set a realistic windfall allowance as setting a windfall allowance that is higher than is likely to be delivered has the potential to result in a shortfall against the housing requirement and could result in the loss of a five-year housing land supply later in the plan period. It is therefore better to under-estimate than over-estimate the contribution from windfall sites over the plan period and be cautious with assumptions rather than over-optimistic.

3.13 The GCSP windfall data contains office to residential permitted development rights that have been completed since 2013 and would be expected to decline as the number of opportunities for such conversions reduce, however recent

changes to the NPPF (residential gardens) and the GDPO (Class MA for commercial use to residential, and Class AA, AB, AC and AD for new flats on top of buildings, and Class ZA allowing for the demolition of a building used as an office, research and development or industrial, or a purpose built block of flats to be replaced by residential) all have the potential to increase the number of windfalls compared to previous years as new sources. It is therefore considered realistic, taking into account the additional data from 2018/19 and 2019/20 (which broadly continues previous trends), and recent changes to policy and permitted development rights, that a continuation of the existing windfall allowance is realistic and deliverable over the plan period.

3.14 **Table 4** shows that when residential gardens and the data for 2018/19 and 2019/20 are taken into account, the average windfall delivery per annum for the Greater Cambridge Area is 498 dwellings (excluding the two highest and two lowest monitoring years) or 533 dwellings over the period as a whole. It is considered that a windfall allowance for Greater Cambridge of 500 dwellings per annum could be a reasonable assumption based on the trend data; which is significantly higher than the 350 dpa currently assumed (130 at Cambridge City and 220 at South Cambridgeshire both excluding garden land).

3.15 The monitoring data shows that windfall completions have continually been delivered in the area since 2006, even with disregarding peaks and troughs in the economic cycle and changes to permitted development rights, and with further recent changes to permitted development rights even an allowance of 500dpa may well prove an underestimate. The data shows that the current windfall allowance of 350dpa is an underestimate of what is being completed on windfall sites in the plan area. The policy and legislation changes referred to above have the potential to increase the contribution of new dwellings from windfall sites further beyond 500dpa, but to rely on this in the housing trajectory and over the plan period to 2041 could be a risk to delivery.

Summary

3.16 Historically the Councils have included a windfall allowance of 350dpa in Greater Cambridge but a review of the data indicates that 500dpa has been delivered in the area. It is considered that a mid-point figure of 425dpa is justified and realistic, however this could be increased by 5% to 450dpa taking into account the likely contribution of new permitted development rights. The table below shows the split for Cambridge City and South Cambridgeshire. On this basis we would suggest the split should be 240-255dpa for South Cambridgeshire and 185-195dpa for Cambridge City, as shown in **Table 5**.

3.17 The mid-point approach is considered pragmatic and reasonable for the purposes of supporting this Joint Local Plan, however we would recommend that the Councils review the windfall allowance when preparing evidence to support the successor to the Joint Local Plan so that any ‘on the ground’ trends for windfall development can be factored into the next plan.

Table 5: Windfall allowance split by district

Windfall allowance	Existing (350dpa)	%	Trend-based (500dpa)	%	Mid-point (425dpa)	%	Mid-point plus 5% (450dpa)	%
South Cambridgeshire	220	63	260	52	240	56	255	57
Cambridge City	130	37	240	48	185	44	195	43
Total	**350**	**100**	**500**	**100**	**425**	**100**	**450**	**100**

4. Market absorption

4.1 There are aspects to deliverability beyond the amount of time it takes to secure an allocation or permission and the rate of delivery once on-site. One critical aspect is the capacity for the market to absorb development. This has been given much attention nationally through the 'Letwin Review' and other notable research reports[3]. **Appendix 7** summarises a review of the available literature in respect of housing delivery, market absorption, build-out rates and lead-in times. The published research shows that historic delivery rates are highly influenced by the private sector's ability to build and sell homes based on market absorption and their own business models.

4.2 There are well-established norms for new build development, for example that completions begin low and build up reflecting site-wide infrastructure delivery, and that as a development/landscape matures and social infrastructure is completed, build-out rates will increase.

4.3 It is also widely recognised that, regardless of the need for housing from population change and migration, 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 prices they have paid for the land. In addition, a market saturated with homogeneous schemes and products will be directly competing for the same customers 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 further still.

4.4 Market absorption rates are an important aspect in plan making and need to be analysed for the purposes of the housing trajectory and five-year housing land supply. There is little point in allocating a strategic-scale site if it is only going to come forward at a very slow rate or fail to deliver its stated trajectory due to an unrealistic view on delivery rates. It may be more effective (in terms of housing delivery) to over-allocate and ensure a sufficient supply and variety of sites aimed at Small and Medium Enterprises and builders. The rates of delivery are influenced by the characteristics of individual sites, the product built on the sites, and how sites relate to each other – as well as the general strength of the local housing market. A homogenous housing land supply should therefore be avoided wherever possible.

4.5 Private companies, the public sector, public-private partnerships and self-builders, can offer a wide variety of product ranges, tenures and brands to support high delivery rates. However, it is important to acknowledge that it is not as simple as increasing sales outlets on a site and expecting to increase delivery rates. Site size, proximity of sites, local market factors and affordability

[3] Planning and housing delivery (Savills, 2019)
Independent review of build out: final report (Rt Hon Sir Oliver Letwin MP, October 2018)
Start to Finish - How Quickly do Large-Scale Housing Sites Deliver? (Lichfields, November 2016)

all combine to influence site-specific and district-wide absorption rates as set out in the sections that follow.

Site size

4.6 There is potential for sites (normally larger sites) to see a number of sales 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 or alternative tenures such as rented properties or shared ownership.

4.7 Delivery rates/absorption rates are dictated by local market conditions (often referred to as the local market's absorption capacity) and not by the maximum technical speed at which homes can be built on a site. Housebuilders deliver new homes as fast as they can sell them, not as fast as they can build them (Office of Fair Trading, 2008). Equally, sales rates are a function of the number of sales outlets. A key determinant of sales rates is the ability of the local housing market to absorb new developments and the optimal number of sales outlets that can operate concurrently either within a site or across a housing market like Greater Cambridge. A key influence on this aspect of delivery is the competition between sites and the way that housebuilders seek to mitigate market absorption risks.

4.8 Housebuilders can only build if they have funded customers to sell to. 'Customers' can include owner occupiers (cash buyers or buyers using a mortgage), small-scale private investors, corporate or institutional investors, affordable housing providers such as housing associations (such as for S106 units), custom/self-builders, and local or central government direct delivery. Sales may be ordinary, market sales per plot, or they can be bulk sales, such as to a Registered Provider or a large investor.

4.9 The Home Builders Federation (HBF) propound the allocation of sites of different sizes, including a sufficient number of smaller sites[4]. The HBF assert that all things being equal, you can expect more market sales (and production) over any given period from 10 sites of 100 units than say from 2 sites of 500 units or one site of 1000 units. Developers generally prefer smaller sites to avoid increased exposure to risk (such as market cycles); there are higher front loaded build costs required to open up the largest sites; and as larger sites have potentially lower sales values reflecting the longer timeframes to establish a market for new settlements in the early phases.

4.10 The counterpoint to this is that strategic-scale sites offer opportunities to open more than one sales outlet. On large sites, housebuilders can open multiple outlets using different brands (for example Barratt Homes, David Wilson Homes and Barratt London are part of Barratt Developments PLC) or by selling phases to affordable housing organisations or even parcels to other housebuilders. This would be done for various reasons such as to improve cash flow and/or to mitigate their exposure/risk. This in turn can help to increase the number of sales. There are other delivery models such as for those strategic sites controlled by a master developer who may release serviced development

[4] Responding to market demand; understanding private housing supply (HBF, 2015)

parcels under licenses. This means that the site-wide planning, infrastructure delivery and external environment considerations are outsourced to the master developer who will typically charge a fee to the landowner and share in the risk/rewards.

Public sector delivery

4.11 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. Ranging from minimal to maximum involvement on the part of the public sector:

- 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).

4.12 Direct delivery commissioned by the public sector and establishing public-sector led development companies is becoming more commonplace (Clifford and Morphet, 2020)[5]. In Greater Cambridge, the Cambridge Investment Partnership (a Joint Venture between Cambridge City Council and Hill Investment Partnerships), South Cambridgeshire Projects LLP (a partnership with Balfour Beatty and South Cambridgeshire District Council) and South Cambridgeshire Investment Partnership (a partnership between Hill and South Cambridgeshire District Council) all aim to deliver new high quality housing developments for the area. The partnerships will acquire land for new homes,

[5] Reviving Local Authority Housing Delivery: Challenging Austerity Through Municipal Entrepreneurialism (Janice Morphet and Ben Clifford, November 2020)

including Council and social rented properties, along with commercial developments and supporting services which will help to secure the local economy as it recovers from the Coronavirus pandemic. The partnerships aim to generate long-term income streams for the Council.

Local market and affordability

4.13 The size of the local market, the nature of local demand, the products available and their prices (e.g. relative to the second-hand market) and the number of competing developers all influence market absorption and sales and build-out rates. To understand the potential impacts of locating sites in close proximity to one another, we have reviewed secondary sources that have sought to establish the distances and relationships between sites that should be considered when designing the final spatial strategy for Greater Cambridge and considering delivery from sites included in the housing trajectory.

4.14 Research published by Savills in response to the 'Letwin Review', concluded that whilst variety of product is an important factor, the local market circumstances and competition/proximity between sites remains a key determinant to build-out rates (emphasis added):

> "The correlation between sales rates and share of the local new build market is more than 2.5 times stronger than that between sales rates and product variation. Our research of 30 sites across the UK showed that those with a sales rate of more than 30 units per quarter were supplying the majority of new build homes within a two-mile radius of the site. Where large sites with significant competing supply are selling high numbers of new homes, they tend to be priced in line with, or below, the local market. Our research revealed lower sales rates where properties were sold at margins that were as little as 2% above the local market average." - What next for housebuilding? (Savills, 2018)

4.15 Supplementary research published in 2019 found that for sites where sales rates are at least 50 homes per quarter (200dpa), this was typically achieved in areas where housing is least affordable (with affordability providing a proxy for demand). It has been observed that sites in markets that are selling high numbers of new homes tend to be priced at a discount to the average price of homes in the local second-hand market (Savills, 2019). Data analysed by Savills from Greater Cambridge in 2018 showed that development in the City of is aimed at the top end of the market: "the average transaction value in the year to June 2018 for a new build house was £814,865, 33% higher than the average value for second-hand houses. In contrast, in South Cambridgeshire, new build values were 1.8% below second-hand values" (Savills, 2018).

4.16 The affordability ratio in Greater Cambridge has steadily increased and remains above the regional and national average (albeit it is has dropped slightly since 2017). This demonstrates that affordability has worsened quite dramatically over the past two decades.

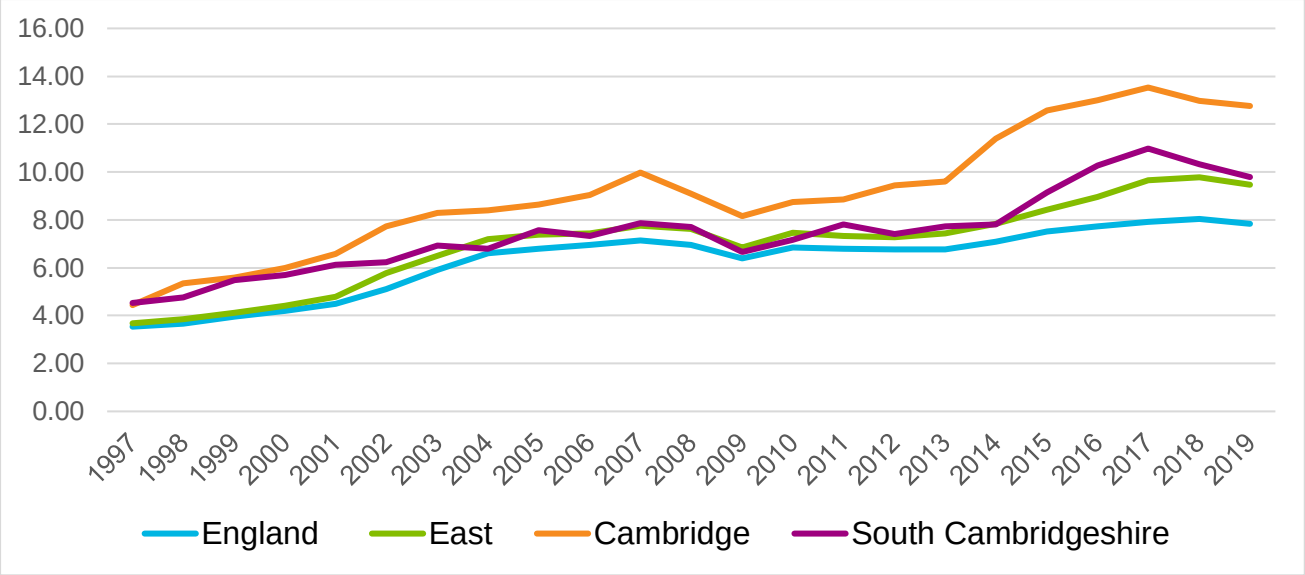


Figure 2: Affordability Ratio Greater Cambridge 1997-2019[6]

Proximity of sites

4.17 Research prepared on behalf of the Department for Communities and Local Government (University of Glasgow, 2008) surveyed 18 housebuilders to understand factors affecting build-out rates. The study investigated perceived competition limits for individual developments, to understand how proximity to other development sites may inhibit sales rates. The respondents supplied typical distances, in miles, used to identify competitor sites for seven different types of development. This ranged on average from approximately 2.40 to 3.88 miles for apartments in locations such as London and provincial city centres and between 5.62 to 7.97 miles for greenfield sites (depending on whether they were sites on the edge of small-medium towns, sites on the edge of major provincial cities or sites in mainly rural areas). Developer's reported that within these distances they would monitor sites perceived to be in competition and track their competitor's total house/unit production, subdivision by house/unit type, and selling prices.

4.18 Lichfields have published research in 2016 and 2020 on lead-in times and build-out rates. The 2020 edition included a case study (Land South of the M4 in Wokingham) that recorded 419 completions in 2017/18 on sites in close proximity to one another. The analysis found that completions were recorded on five separate parcels ranging from 4 -169 completions. The high annual rate of delivery was found to be reflective of the seven different active house building companies, and them being located in separate parts of the site each with their own road frontages and access arrangements allowing them to build-out concurrently. Lichfields observed that these site-specific factors, alongside consideration of sales outlets more generally, are underreported in Authority Monitoring Reports:

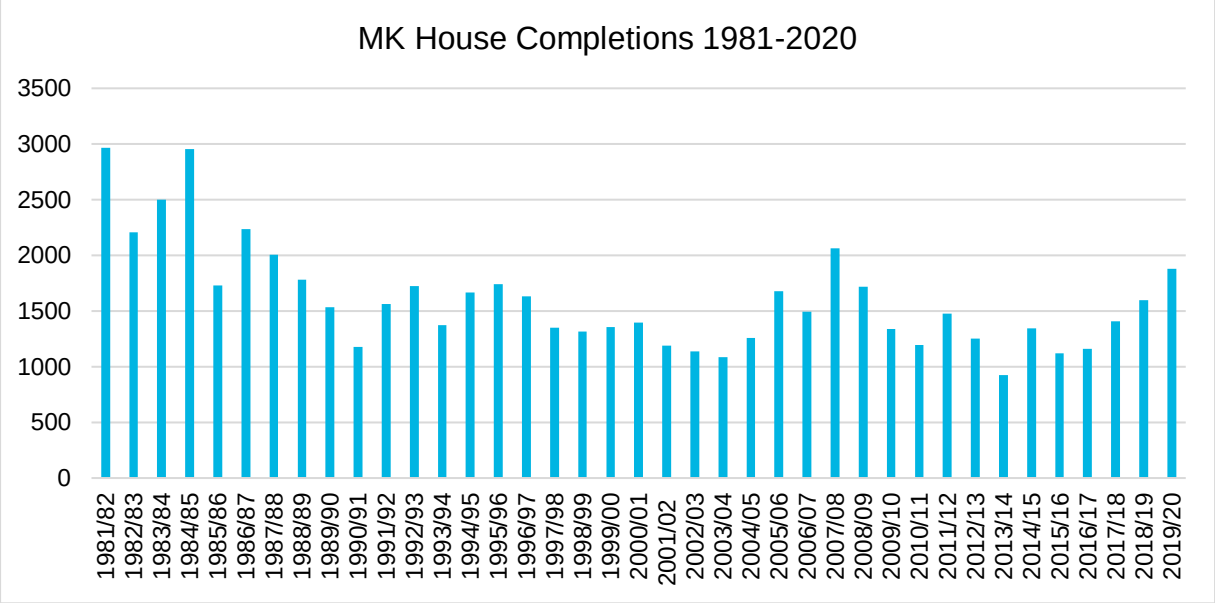
[6] Ratio of median house price to median gross annual (where available) workplace-based earnings by country, region, Greater Cambridge authorities, 1997 to 2019

> "An under-explored aspect of large-scale site delivery is the physical opportunity on site. For example, some schemes lend themselves to simultaneous build out of phases which can have the impact of boosting delivery rates in that year, for example, by having access points from two alternative ends of the site. Other sites may be reliant on one key piece of infrastructure which make this opportunity less likely or impractical." – (Lichfields, 2020)

4.19 In terms of district-wide market absorption Milton Keynes delivered circa 2,500 dpa at its peak, albeit with a large proportion of social housing. Between 1981 – 2020 data from Milton Keynes Council shows delivery in excess of 1,500 dwellings in a number of years. Greater Cambridge is a stronger housing market with worsening affordability and high demand as a result of sustained growth in the local economy over decades. Even in less attractive markets a diversity of land supply has been shown to support high delivery rates. For example, from 1981 to 2010 Swindon had multiple growth sites representing approximately 34,000 units and averaging in the region of 1,200 dpa. These precedents place the projected trajectories for Greater Cambridge into a historical context and demonstrate that such levels have been achieved in the past (albeit under different market and policy conditions).

Case Study: Milton Keynes district-wide market absorption

Figure 3: Milton Keynes Council House Completions in Designated Area 1981-2020



4.20 Published literature on build-out rates often cites the example of Milton Keynes, both in terms of its genesis in the 1960s and subsequent rapid growth as New Town and also as a contemporary example of how to achieve high build-out rates citing its large urban eastern and western extensions to the town. Previous research prepared by the co-authors of this study (HDH Planning and Development Ltd) observed that there have been as many as 28 active outlets operating concurrently across strategic sites in one year in Milton Keynes:

*"*Milton Keynes delivered ~1,500 units pa, of which approximately 25% were from smaller sites which leaves 1,125 or so from 28 main outlets, or circa 40 per main outlet*"* (HDH, 2014).

4.21 The provision of more than 25% of output from the main volume housebuilder outlets in Milton Keynes can be put down to the fact that strategic growth was planned for many years through the New Town Development Corporation and special delivery mechanisms that still exist. There are several other interrelated factors that explain the rapid progress of sites like the Western and Eastern Expansion Areas (of which the latter delivered a sizeable 791 homes in one monitoring year after the first three years of construction).

Milton Keynes key findings

- Large proportion of the land owned by the local authority (and Homes England), therefore the public sector were able to influence delivery rates through the council's approach to masterplanning, infrastructure delivery and disposal of the land.
- Appetite for development and resource for dealing with major applications within the local authority, including recipients of central Government funding to enable major development sites to come forward.
- The Western Expansion Area in Milton Keynes deployed a wide range of house types. The most prevalent house type only accounted for 36% of units sold. The least prevalent type accounted for 18%. Sites achieving lower sales rates tended to have one product type dominating delivery, accounting for more than 50% of all sales.
- Western Expansion Area in Milton Keynes has average sales values 2% below the average for the local new build market.
- The Eastern Expansion Area delivered serviced parcels with the roads already provided as part of the delivery model, with monitoring data showing on average 12 parcels that were active across the build period. This is an established growth area associated with high levels of competition between multiple developers on site.

Survey and workshop feedback

4.22 In discussions with stakeholders, as part of the survey and workshops for this report, respondents stated that while there is a limit to the number of volume builders who can operate on a single site, healthy competition between developers on sites in Greater Cambridge can help to boost build-out rates, as seen at the Southern Fringe. Average delivery rates of between 200-250 dwellings per annum was thought to be a reasonable estimate for strategic sites with some suggesting 400-500dpa would be possible. In particular, where there is an increased variety of housing products, including private rented sector (PRS) and build-to-rent. Some respondents noted that there is the potential to increase build-out rates in Greater Cambridge. Several respondents in the workshop (including developers and property investors) raised the importance of having multiple access points for strategic sites.

4.23 High build-out rates have been observed within the southern fringe of Cambridge where multiple developers were building and selling concurrently.

This area of Greater Cambridge has long been identified for future housing growth and has benefited from strategic infrastructure investment, multiple outlets and a variety of different products. **Table 6** summarises this recent local example where sites in close proximity to one another delivered high annual completions and sales in recent years.

Table 6: Delivery rates and projected supply in the Cambridge Southern Fringe area (red text shows the peak years)

Strategic site name	Homes total	Delivered 2011/12	Delivered 12/13	Delivered 13/14	Delivered 14/15	Delivered 15/16	Delivered 16/17	Delivered 17/18	Delivered 18/19	Delivered 19/20	Projected 20/21	Projected 21/22	Projected 22/23	Projected 23/24
Clay Farm	2,250	-	16	271	393	149	467	539	109	93	90	61	-	-
Bell School	347	-	-	-	-	21	122	45	50	32	-	-	-	-
Glebe Farm	321	-	55	112	86	34	30	-	-	-	-	-	-	-
Trumpington Meadows	1,200	2	141	141	67	105	89	123	106	72	132	124	5	41
Annual total		2	212	**524**	**546**	**309**	**708**	**707**	265	197	222	185	5	41

4.24 Respondents noted that sites which are better integrated with the existing settlement benefit from demand from the Cambridge housing market, whereas new settlements may be less attractive to buyers compared to urban extensions and so may deliver more slowly initially in the early years. A specialist developer noted the potential for urban extensions to deliver at higher densities which can also help to increase delivery rates.

4.25 Respondents highlighted that sales rates and delivery rates are high on sites close to Cambridge, but less so in the new settlement areas detached from the main urban area due, in part, to the increased distance to established employment areas and locations for jobs. While it would be possible to create more employment land in new settlements, one developer suggested this may not have the desired effect of attracting house buyers unless a major employer is involved, since Cambridge and its agglomeration benefits are a key factor to sales in the city and its immediate surroundings. The type of business in an area will also have an effect on the attractiveness of a site, with warehouse/distribution uses potentially reducing values and demand on attached housing sites while science parks and R&D tend to increase values. This may explain part of the attractiveness of the southern fringe sites, with their close proximity to Addenbrookes Hospital and the Cambridge Biomedical Campus.

4.26 There was a consensus from respondents that Greater Cambridge is seeing very high market demand owing to jobs growth and also Covid-19 related internal migration, as home working provides greater locational flexibility. Buyers and renters are keen to live in more sustainable locations with a greater service array and connectivity. The differentiated popularity of new-build properties may be concealed by the overall shortage of housing which is driving demand for all homes in the area. Respondents felt that the Covid-19 Pandemic would have a major and lasting impact on buyer and renter preferences, with a greater demand for private space and green space. With less of a dependence on living in the largest conurbations, it is anticipated that a proportion of buyers will seek homes in smaller settlements and/or rural areas where they can work from home but enjoy greater domestic space.

Summary

4.27 There are several interrelated factors that influence market absorption. For the purposes of plan making and the Local Plan's development strategy and when preparing the housing trajectory, it would be prudent to consider the proximity of nearby strategic sites and work with site promoters to understand whether competing sites (or sites reliant on the same infrastructure improvements) will reduce potential delivery rates over the plan period by applying broad areas of influence assumptions. Based on the published literature and stakeholder feedback, it would be prudent to engage with the landowners, promoters and developers of draft allocation sites to understand whether the presence of other nearby sites may reduce likely build-out rates. There is some evidence in the published literature that suggests for detached greenfield sites, the Councils might consider similarly sized sites within an 8-mile radius as in competition and for urban sites this may be within 2-mile radius. This rule of thumb should be tested through further engagement with site promoters once the Councils' preferred option development strategy and site allocations have been published in the Greater Cambridge Local Plan: First Proposals.

5. Lead-in times

Introduction

5.1 Sites have different lead-in times depending on their size, nature of the development, landownership, existing use, business model of the developer and method for bringing forward the site (through allocation in the Local Plan or just through a planning application). **Appendix 7** summarises a review of the available literature in respect of housing delivery, market absorption, build-out rates and lead-in times. At the initial stages in the plan-making process it is necessary to arrive at high-level realistic assumptions for lead-in times, noting that site-specific factors will be taken into account later as more is known about individual site allocations.

5.2 Secondary sources, such as Start to Finish and the Letwin Review, acknowledge that it is not always possible to accurately source consistent data for the time prior to submission of an application. The promotion of strategic sites can often run into several years. Similarly, the pre-application period can also represent a significant period of time where applicants seek views on a proposal with the Local Planning Authority (pre-application meetings) and with the statutory consultees (for example, fees paid to utility companies to undertake feasibility studies for network capacity). In addition, public engagement events will be utilised to help refine early proposals with the inputs of the local resident and business communities. The largest schemes may also benefit from a Planning Performance Agreement and the input of a local Design Review Panel. The Lichfields report states:

> ‘The lead-in time prior to the submission of a planning application is an important factor, because many planning issues are flushed out in advance of planning applications being submitted, not least in terms of local plan allocations establishing the principle of an allocation… If the lead-in time prior to submission of an application is able to focus on addressing key planning issues, it can theoretically help ensure that an application – once submitted – is determined more quickly. Our sample of sites that has lead-in time information available is too small to make conclusions on this theory.’

5.3 This report is focused mainly on those aspects where lead-in data is readily available: the time taken from submission of a planning application to detailed planning permission being granted; and the time taken from the date of the permission to the first completion on site. However, information on the time taken from adoption of a Local Plan to submission of a planning application is included where available.

5.4 Whilst it is recognised that a significant amount of lead-in time ‘pre-planning’ work takes place during the plan-making process via site promotion, we have attempted to calculate proxy lead-in times for sites by including the date of plan adoption where the site was first allocated, and calculating the time taken for an application to be submitted and validated. This provides an approximation of how long it takes for landowners and developers to take their site forward after an allocation is secured in an adopted plan, which is a particular issue where an allocation is needed to provide policy certainty that an application would be acceptable in principle (for example, because the site needs to be released from the Green Belt).

Strategic Sites

5.5 **Table 7** summarises the key findings on lead-in times from published research. **Table 8** shows the average lead-in times for GCSP and other strategic sites analysed within the OxCam Arc in **Appendix 1**.

5.6 The comparator site table in **Appendix 1** contains a schedule of strategic sites (200 dwellings and above) across the OxCam Arc, including a mix of those that are planned and under construction. The data is taken from Authority Monitoring Reports (AMRs), Five Year Housing Land Supply position statements, housing trajectories, Local Plans and evidence base documents such as HELAAs.

5.7 Data was collected to identify:

- The earliest date the site was allocated in the development plan (if indeed it was allocated in a plan);
- The date of validation of a planning application on the site;
- The date of grant of the first detailed planning permission (either reserved matters permission where this follows on from an outline planning permission, a full permission or a hybrid permission);
- The number of outlets operating at the site (if available);
- Completions to date on the site (going back as far as publicly available records allow);
- The trajectory for the next five years as included in the five-year supply calculations; and
- The trajectory over the rest of the plan period (going forwards as far as publicly available records allow).

5.8 The sites have been grouped into the bands used in other national research[7] and analysis to enable comparison of figures between Greater Cambridge, the OxCam Arc and England as a whole. The data is as accurate and up-to-date as possible; however it is only possible to use data that is in the public domain. The data is only ever a 'snapshot in time' and is subject to change as sites move through the development pipeline and are built out.

5.9 The early research and interim assumptions based on this data were sense-checked with developers and agents operating in the Greater Cambridge area.

[7] Start to Finish - What factors affect the build-out rates of large scale housing sites? Second Edition (Lichfields, February 2020); and Independent Review of Build Out Rates Annexes (MHCLG, June 2018)

Table 7 Published research for lead-in times (2005-2020)

Colin Buchanan 2005	Lead-in time	Calcutt Review 2007	Lead-in time	Hourigan Connolly 2014	Lead-in time	Savills 2014	Lead-in time	Chamberlain Walker Economics 2017	Lead-in time	Letwin Review 2018	Lead-in time	Lichfields 2020	Lead-in time
1000-1999 dwellings	4.7 years (56.4 months)	Pre-application	2.09 years (25.1 months)	Outline approval to first homes	8 years (96 months)	<3,000 units sites	4-5 years (48-60 months)	Application to consent	0.5-0.8 years (6-9.6 months)	Application to first start	>4-5 years (>48 -60 months)	100-499 dwellings	2.1 years (25.2 months)
2000-2999 dwellings	5 years (60 months)	Planning consent given	0.5 years (6 months)			>3,000 unit sites	6.5 years (78 months)	Consent to construction start	1.7 years (21 months)			500-999 dwellings	3.3 years (39.6 months)
>3000 dwellings	5.5 years (66 months)	Consent in legally implementable form	0.35 years (4.2 months)									1000-1499 dwellings	4.6 years (55.2 months)
		Construction	2.95 years (35.4 months)									1500-1999 dwellings	5.3 years (63.6 months)
		Total =	5.8 years (69.7 months)									>2000 dwellings	6.1 years (73.2 months)

Table 8: Average lead-in times in Greater Cambridge and the OxCam Arc by site size

Site Size	GCSP Lead-in times Average: Time from allocation to Submission (months)	GCSP Lead-in times Average: Time from submission to detailed approval (months)	GCSP Lead-in times Average: Time from detailed approval to first completion (months)	GCSP Lead-in times Average: Total time from allocation to first completion (months)	GCSP Lead-in times Average: Total time from submission to first completion (months)	OxCam Lead-in times Average: Time from allocation to Submission (months)	OxCam Lead-in times Average: Time from submission to detailed approval (months)	OxCam Lead-in times Average: Time from detailed approval to first completion (months)	OxCam Lead-in times Average: Total time from allocation to first completion (months)	OxCam Lead-in times Average: Total time from submission to first completion (months)
200-499	47	58	26	94	60	45	41	20	79	56
500-999	80	45	18	94	61	27	62	28	75	79
1000-1499	48	51	22	156	78	42	72	59	62	108
1500-1999	34	72	30	136	102	33	57	10	71	128
2000+	37	58	11	67	65	18	49	15	68	69
All sites	48	57	20	100	67	32	52	23	74	74

Source: AECOM analysis

5.10 Our analysis of strategic sites (**Appendix 1**) found that some sites were approved before first being allocated in an adopted plan. However, the majority of these were 'twin-tracked' through the plan-making and development management process, with support in the emerging plan used to help justify their promotion and development in the early part of the plan period. The majority of strategic sites are allocated in a newly adopted plan first before planning applications are submitted.

5.11 This analysis shows that sites in Greater Cambridge take comparatively longer to progress from initial allocation in an adopted development plan document to submission compared to elsewhere in the OxCam Arc area. The time taken to secure planning permission through the development management process however is comparable, if not slightly quicker than elsewhere in the OxCam Arc.

5.12 This can be explained to a degree by the recession from 2007-2009 affecting sites first identified in the development plan prior to 2009. Another cause is the policy approach that Cambridge City and South Cambridgeshire have taken historically with their strategic sites, whereby after the adoption of a Local Plan or Core Strategy, an Area Action Plan (AAP) or Supplementary Planning Document (SPD) has been prepared to provide additional policy detail and guidance. This required developers to either wait for the AAP or SPD to be adopted to provide sufficient certainty before submitting an application, or required the Councils to delay determining the planning application until issues had been resolved through the supplementary document. This approach was undertaken for sound planning reasons given the need to coordinate infrastructure delivery between the multiple landowners, and co-ordinate development across the Cambridge City and South Cambridgeshire administrative boundaries, but as a result it did extend the lead-in time for delivery from the point of the site being first allocated in the development plan to the time of first completions. The preparation of a joint Local Plan and the GCSP service itself offers opportunities to explore reductions to lead-in times.

5.13 **Table 9** compares the GCSP lead-in times to the OxCam Arc sample of sites and Lichfields 'Start to Finish' second edition figures drawn from a national sample (to act as a sense check). To allow a fair comparison with the Lichfields figures (which use the timeframe from submission of an application to approval and from approval of a detailed application to first completion) the period from allocation to submission of an application has been excluded.

Table 9: Comparison of average lead-in times in Greater Cambridge and the OxCam Arc against national research figures, by site size

Site Size	GCSP lead-in times Average: Time from submission to detailed approval (months)	GCSP lead-in times Average: Time from approval to first completion (months)	GCSP lead-in times Average: Total time from submission to first completion (months)	OxCam lead-in times Average: Time from submission to detailed approval (months)	OxCam lead-in times Average: Time from approval to first completion (months)	OxCam lead-in times Average: Total time from submission to first completion (months)	Lichfields Start to Finish 2 Average: Time from submission to detailed approval (months)	Lichfields Start to Finish 2 Average: Time from approval to first completion (months)	Lichfields Start to Finish 2 Average: Total time from submission to first completion (months)
200-499	58	26	60	41	20	56	25	23	48
500-999	45	18	61	62	28	79	40	20	60
1000-1499	51	22	78	72	59	108	55	28	83
1500-1999	72	30	102	57	10	128	64	20	84
2000+	58	11	65	49	15	69	73	28	101
All sites	57	20	67	52	23	74	-	-	-

Source: AECOM analysis, Lichfields Start to Finish 2 (2020)

5.14 It should be noted there are several outliers in the data which skew the figures for the 1000-1499 and 1500-1999 bands in the OxCam Arc. These are sites at Wixams in Bedford/Central Bedfordshire that took many years to deliver due to the complicated cross-border nature of the sites requiring significant transport infrastructure to open up the site, comprehensive landscaping works, and remediation of a former munitions factory, clay pits and brick works. The rest of the data, for the period post submission of an application, shows that lead-in times are broadly comparable within the OxCam Arc and compared to Lichfields national case study figures, which shows that the GCSP development management service is operating at an equivalent level to neighbouring authorities, processing applications in a similar timeframe.

Non-strategic Sites

5.15 For non-strategic sites (under 200 dwellings) lead-in times have been considered that can be applied to a series of site and development typologies.

5.16 The HELAA typologies identified by GCSP vary in terms of their density, site size and geographical location. In order to identify reasonable assumptions for lead-in times and build-out rates for the HELAA typologies it is necessary to interrogate the GCSP housing completions database and look at the completions in terms of:

- the proportion of flats and houses delivered,
- density,
- site size and how many dwellings were delivered per annum;
- location, and
- whether outline or full planning permission was sought.

5.17 GCSP provided AECOM with the monitoring database for Cambridge City and South Cambridgeshire containing all completions since 2006. The monitoring database does not record the validation date or the date of the grant of outline permission; it only records the date an implementable consent was granted (full permissions, prior approvals and reserved matters permissions). It has therefore not been possible to rely entirely on this dataset as it is not possible to use it to calculate the full lead-in time for sites that are taken forward via the outline permission route or from date of an allocation. Further data gathering has been required using Public Access to source this information and to fill the full lead-in time data gap for sites which came forward via outline permission or an allocation.

5.18 GCSP has previously prepared the lead-in times assumptions for use in its housing trajectory, and the methodology used is contained in Appendix C of the 2019 Housing Trajectory and Five-Year Housing and Supply document. This appendix contains full lead-in times for a large sample of sites from validation to first completion for full and outline permissions, and also the build-out rate for those sites. It is important to note that the sample size of this appendix is smaller than that of the full monitoring database, though this is the best available data which can be used to estimate lead-in times and build-out rates for larger sites delivered via the outline permission route.

5.19 GCSP used this data to calculate ‘typical assumptions’ for lead-in times and build-out rates, however some sites with abnormally long lead-in times were excluded based on officer judgment taking site-specific factors into account.

During the workshops the development industry commented that removing some sites with longer lead-in times presented an overly-optimistic picture. Therefore the data has been re-assessed in light of this feedback.

5.20 The Councils' existing 'typical assumptions' dataset has been used for the purposes of assessing lead-in times as this data includes information on outline permissions. To reflect the HELAA typologies as closely as possible the data has been analysed two ways – the first by site size, and the second by location.

5.21 This data shows that site size and whether an outline or full permission is sought affects the lead-in times from validation until the first completion. The data in **Table 10** and **Table 11** shows that for outline permissions on average all sites below 200 dwellings deliver within 5 years of validation; and that for full permissions all site sizes deliver on average within 3 years of validation. The data also shows that outline permissions are generally not favoured by developers in Cambridge City.

Table 10: Outline permissions table

Row Labels	Count of Length of Time from Outline Planning Application Submitted to First Housing Completions (in months)	Average of Length of Time from Outline Planning Application Submitted to First Housing Completions (in months)	Average (in years)
Cambridge 10-49	-	-	-
Cambridge 100-199	-	-	-
Cambridge 200-999	-	-	-
South Cambs 10-49	5	41	3.4
South Cambs 50-99	4	37	3.0
South Cambs 100-199	1	56	4.7
South Cambs 200-999	1	67	5.6
Grand Total	**11**	**43**	**3.6**

Table 11: Full permissions table

Row Labels	Count of Length of Time from Full Planning Application Submitted to First Housing Completions (in months)	Average of Length of Time from Full Planning Application Submitted to First Housing Completions (in months)	Average (in years)
Cambridge Total	**11**	**35**	**2.9**
Cambridge 10-49	11	35	2.9
Cambridge 100-199	-	-	-
Cambridge 200-999	-	-	-
South Cambs Total	**12**	**32**	**2.7**
South Cambs 10-49	10	35	2.9
South Cambs 50-99	2	19	1.6
South Cambs 100-199	-	-	-
South Cambs 200-999	-	-	-
Grand Total	**23**	**33**	**2.8**

5.22 The average lead-in time data in terms of site size is broadly comparable with other secondary sources, where sites of 50-99 dwellings take on average 3.3 years from submission of an application to first completions and sites of 100-499 dwellings take on average 4 years. These figures do not include the lead-in time from the date of allocation.

5.23 Disregarding site size and instead looking at the location of completions as per the HELAA typologies, the following average lead-in times have been calculated in **Table 12**.

Table 12: Lead-in times for GCSP monitoring data matched against the HELAA typologies

HELAA Typology	GCSP Monitoring location and dwelling type	Lead-in times (submission to first completion) - Full	Lead-in times (submission to first completion) - Outline
Central	Cambridge Urban Area (flats)	2.9	8.1
Suburban	Cambridge Urban Area (flats and houses mix)	2.9	8.1
Suburban	Cambridge Urban Area (houses)	2.9	8.1
Rural connected	Rural Centre (South)	2.4	3.9
Rural minor/group	Minor Rural Centre (South)	2.1	4.6
Rural Infill	Infill Village (South)	3	-
Large city edge / infill	Strategic site (for large sites 200 dwellings+), Edge of Cambridge (City), Cambridge Urban Area (South)	4.3	6.4
New Settlement	Strategic site (for large sites 200 dwellings+)	-	-

5.24 It should be noted that the only outline permission in Cambridge Urban Area is the 'Station Area - Pink Phase (Station Road West)' scheme for up to 331 dwellings. This site was validated in February 2008, outline permission approved in April 2010, the first reserved matters was approved in January 2014, construction started in March 2015 and the first completions took place in March 2016. This site has a long 8.1 year lead-in time because of the timing of the application (determined during the 2008 global financial crash) and is a complicated, large scale brownfield site therefore is not considered to be representative of development in central Cambridge generally. The site is the only outline permission and is the largest site delivered in Cambridge urban area, therefore it is proposed to be disregarded as a clear outlier (shown in red – above).

5.25 By contrast the lead-in times for full and outline permissions for other locations in the table are based on a larger sample size and are deemed generally appropriate, showing that outline permissions lengthen lead-in times compared to full permissions. Of note is that 'large city edge/infill' typologies have relatively longer lead-in times than the other typologies, which is due to the fact that these sites tend to be larger scale and are more complex to deliver with significant on-site infrastructure requirements.

5.26 Looking at the full completions database, and removing those sites which are strategic allocations and already accounted for elsewhere, the largest

unallocated sites to be completed in Cambridge and South Cambridgeshire as full applications are as shown in **Table 13**.

Table 13: Largest applications for 'Full' planning permission in Cambridge City and South Cambridgeshire

District	Planning Reference	Address	Dwellings (largest to smallest)
Cambridge City	C/01140/09	LAND REAR OF 98-108, SHELFORD ROAD, CAMBRIDGE, CAMBRIDGESHIRE	283
Cambridge City	C/00179/09	Site at Cambridge Regional College, NEWMARKET ROAD, CAMBRIDGE	155
Cambridge City	C/01337/12	171-211 CROMWELL ROAD, CAMBRIDGE, CB1 3BA	136
Cambridge City	C/00790/14	Cambridge City Football Club, Milton Road, CAMBRIDGE, CB4 1UY	106
Cambridge City	C/00523/10	CAMBRIDGESHIRE FIRE AND RESCUE SERVICE, PARKSIDE, CAMBRIDGE, CB1 1JF	99
Cambridge City	C/00219/11	9-15 HARVEST WAY, CAMBRIDGE, CAMBRIDGESHIRE, CB1 2RA	75
Cambridge City	C/00327/11	Former Brunswick Site Newmarket Road Cambridge Cambridgeshire CB5 8EG	50
Cambridge City	C/01496/14	Land at 315-349, Mill Road, CAMBRIDGE, CB1 3NN	48
Cambridge City	C/00494/09	Land at Simons House and 18-25 Rackham Close, HISTON ROAD, CAMBRIDGE	40
South Cambridgeshire	S/01523/13	Land to the South of Southbrook Field Papworth Everard Cambridge CB3 8UW	81
South Cambridgeshire	S/02118/08	Land North of, WELLBROOK WAY, GIRTON	76
South Cambridgeshire	S/00809/12	S C A Packaging Ltd, VILLA ROAD, HISTON, CAMBRIDGE, CB24 9NZ	72
South Cambridgeshire	S/00296/15	8, Cody Road, Waterbeach, CAMBRIDGE, CB25 9LS	60
South Cambridgeshire	S/02048/14	Land at Victoria Way, Melbourn, ROYSTON, SG8 6FE	49
South Cambridgeshire	S/02509/12	Land at the Junction, Long Drove &, BEACH ROAD, Cottenham, CB24 8RG	47

District	Planning Reference	Address	Dwellings (largest to smallest)
South Cambridgeshire	S/02461/16	Land north of Bannold Road, Waterbeach, CAMBRIDGE, CB25 9LQ	45
South Cambridgeshire	S/03223/15	K1, Topper Street, CAMBRIDGE, CB4 2WL	42
South Cambridgeshire	S/00458/12	Land West of Merrington Place, Off Impington Lane, Impington, Cambridge, CB24 9LT	31
South Cambridgeshire	S/00882/14	Land adj to 41, Denny End Road, Waterbeach, CAMBRIDGE, CB25 9PB	30
South Cambridgeshire	S/00820/12	MACFARLANE GRIEVE HOUSE, CHURCH LANE, PAPWORTH EVERAD, CAMBRIDGE, CB23 3QW	28
South Cambridgeshire	S/01631/15	Site adjacent to 12, Back Lane, Great Cambourne, CAMBRIDGE, CB23 6FY	27
South Cambridgeshire	S/01653/07	Land at Southgate Farm, CHESTERTON FEN ROAD, MILTON	26

5.28 The table above shows that in Cambridge, beyond the strategic allocations, the largest site to be pursued as a full application is 283 dwellings. There is only one site larger than this, the Station Area - Pink Phase (Station Road West)' scheme for up to 331 dwellings in central Cambridge, which was taken through the outline permission route. In South Cambridgeshire there are only a handful of sites larger than 50 dwellings that were consented via the full permission route.

5.29 The smallest reserved matters applications start around 50 dwellings (approximately 1 outlet over 1 year) however the largest (tied to strategic sites allocated in the plan) do extend up to nearly 200 dwellings (1 outlet over 3-4 years).

5.30 It is therefore proposed that 200 dwellings is a reasonable threshold in central Cambridge at which outline applications will be submitted instead of full applications, with 50 dwellings used elsewhere on the edge of Cambridge and in South Cambridgeshire.

Survey and workshop feedback

5.31 The workshop discussion addressed the application of "average" lead-in times. There was a concern raised that this would not reflect the worst-case scenarios (which could result in 6-12 months being added to the assumptions). For the larger sites, it was generally felt that the assumption presented at the workshop (see **Appendix 5**) may be optimistic, although no firm responses or alternative timeframes were provided.

5.32 Where a site requires an adopted design code or masterplan, this can add several months to the project plan once committee cycles are factored in. While it should be a 6-month end-to-end process, one of the major developers stated the general assumption is that it will take up to a year. Even where Planning Performance Agreements are in place, the additional layer of policy (AAPs/SPDs) was felt to extend timetables considerably. If the allocation is to be supported by another layer of policy (such as an SPD or AAP), it was suggested that the allocation should be less detailed, although a number of participants felt it was better to avoid too many layers and the detail should be in the Local Plan where possible. There is a risk that detail being moved between different layers of the plan (for example from allocation to masterplan or SPD) does not actually make a difference to the overall project timeline, but simply shifts when the work is required. However, it may be possible to streamline parts of the process to deliver marginal gains across the entire piece.

Summary

5.33 Lead-in times applied in the interim report drew upon assumptions prepared by GCSP that had been used to inform the preparation of their housing trajectories and guide the delivery of sites included in their spatial options. This final report recommends adjusted lead-in times based on an assessment of local data, comparator strategic sites and following feedback received on the survey and through the development industry workshops held in 2021.

5.34 In reviewing the monitoring data on lead-in times we have found that strategic sites (200 dwellings and above) are taken forward through the outline application route. In Cambridge non-strategic sites (up to 200 dwellings) are

made through full applications whereas on the edge of Cambridge and in South Cambridgeshire the threshold at which an outline application is submitted for non-strategic sites is much lower at 50 dwellings.

5.35 For strategic sites (>200 dwellings) we recommend an 8-9 year lead-in time from allocation to first completions on-site where some form of supplementary guidance is required such as a masterplan, design guide/code or Supplementary Planning Document (SPD), however if this were to be incorporated into the Local Plan allocation then this could shorten the lead-in time by 2-3 years. For non-strategic sites (<200 dwellings) we recommend a 3-6 year lead-in time.

5.36 It is assumed that strategic site promoters will typically seek outline planning approval. However, it is acknowledged that some smaller sites in the 200-499 range could be brought forward through full planning permissions and time savings would be achievable. This should be assessed on a case by case basis (where appropriate).

6. Build-out rates

Introduction

6.1 Sites have different build-out rates depending on their size and nature of the development. **Appendix 7** summarises a review of the available literature in respect of housing delivery, market absorption, build-out rates and lead-in times.

6.2 The interim findings included a preliminary analysis of comparator sites drawn from the OxCam Arc, Combined Authority area and other strategic sites in strong housing market areas (this data is updated in **Appendix 1**). The interim findings concluded that a maximum average build-out rate of ~300 dwellings per annum was appropriate based on the information available at that time. The rationale for this maximum average build-out rate has been found sound at some Local Plan examinations. However, this rate of delivery has also been challenged as a general 'rule of thumb' such as through the North Essex examination in relation to three garden village proposals.

6.3 The Planning White Paper proposals and sustained Government initiatives have been aimed at increasing the rate of housebuilding to tackle the UK's housing crisis. Therefore a key question addressed through the survey and workshops has been whether higher delivery rates would be achievable in Greater Cambridge and whether there are any interventions that can mitigate market absorption risk. For example, could the Joint Local Plan encourage new entrants into the market that would not directly compete with volume housebuilders. The original Garden Cities and New Towns were able to deliver very high build out rates, compared to current day strategic-scale schemes, by adopting alternative models of delivery and high proportions of rented products in addition to market homes for sale.

6.4 A useful proxy to establish a realistic starting point for build-out rates per outlet are the average annual delivery rates and performance of the volume housebuilders (see **Table 14**). Annual Reports for 2017-2020[8] illustrate average completions (market and affordable) of ~48 units per annum per outlet within a range of between 34-102 units per annum per outlet. Countryside Properties achieved the highest build out rates per outlet, their annual reports state 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.

6.5 **Table 15** summarises a series of key build-out rate assumptions drawn from the secondary sources in **Appendix 7.**

[8] Based on 2017 - 2019 House builder Annual Reports for Barratts, Berkeley, Persimmon, Taylor Wimpey, Bellway, Bovis, Crest Nicholson, Redrow, Countryside and Linden Homes.

Table 14: Volume housebuilder annual report completion figures 2017-2020

House Builder	Annual Reports 2017 Number of Completions	Annual Reports 2017 Number of Sites (Sales Outlets)	Annual Reports 2017 Average per Outlet	Annual Reports 2018 Number of Completions	Annual Reports 2018 Number of Sites (Sales Outlets)	Annual Reports 2018 Average per Outlet	Annual Reports 2019 Number of Completions	Annual Reports 2019 Number of Sites (Sales Outlets)	Annual Reports 2019 Average per Outlet	Annual Reports 2020 Number of Completions	Annual Reports 2020 Number of Sites (Sales Outlets)	Annual Reports 2020 Average per Outlet
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

^Active outlets not stated. 0.58/week average = 30.16 dwellings per outlet per year (3867/30.21 = ~128 outlets)

* Linden Homes and Galliford Try Partnerships acquired by Vistry Group January 2020
**Outlets not stated, 70 live sites with 'implementable planning consent and are in construction' used as a proxy
*** 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 number of active sites or outlets. Report refers to 224 sites in 2020
*****2020 annual report states 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]

Table 15: Build-out times from secondary sources

Colin Buchanan 2005 site size	Colin Buchanan 2005 build out rate	University of Glasgow 2007 site type	Colin Buchanan 2005 completions per outlet	HCA 2013 site size	HCA 2013 build out rate	Hourigan Connolly 2014	Hourigan Connolly 2014	Savills 2014 build-out year	Savills 2014 completions per year	Letwin Review 2018	Letwin Review 2018 completions	Lichfields 2020 site size	Lichfields 2020 dwellings per annum (dpa)
1000-1999 dwellings	101-200 dwellings per annum	Brownfield apartments	67.18 /outlet	<4000 dwellings	150-300 dwellings per annum	Case study average	30-35 dwellings per outlet	Year 1	60 dwellings per annum	15 largest sites average	286 dwellings per year	100-499 dwellings	55 dpa
2000-2999 dwellings	189-250 dwellings per annum	Greenfield	58.61 /outlet	>4000 dwellings	300-500 dwellings per annum			Year 2+	100-120 dwellings per annum			500-999 dwellings	68 dpa
3000+ dwellings	330-350 dwellings per annum											1000-1499 dwellings	107 dpa
												1500-1999 dwellings	120 dpa
												>2000 dwellings	160 dpa

Strategic sites

6.6 This chapter uses the same strategic sites data as **Chapter 5**, however focusses on the build-out rate rather than the lead-in times.

6.7 Secondary sources cover England and Wales with a large sample of sites across various housing markets and local contexts. The GCSP monitoring data shows the local area, but with a small sample size that makes it difficult to extrapolate trends from. The OxCam Arc analysis attempts to fill this gap by providing a larger sample size but for sites within the wider sub-region to see if the averages in national research (such as in reports by Letwin and Lichfields) are appropriate in the Greater Cambridge area.

6.8 **Table 16** (below) shows the averages for each site size band in GCSP, the OxCam Arc and Lichfields Start to Finish 1 and 2. The figures are all average across the full build period. Sites in the 200-499 band show delivery rates that are very similar; but for larger sites the delivery rates are much higher in GCSP and OxCam Arc when compared to the Lichfields national data. This could be down to a greater number of outlets that are able to operate at sites without impacting the market absorption rate, and also the strength of the local/regional housing market and higher viability allowing for a greater proportion of policy-compliant affordable housing. This was confirmed through the workshops where competition between sites and outlets was discussed. The consensus was that it was unlikely that the Greater Cambridge market would become saturated to the extent that prices or sales rates may be impacted due to the high demand for housing in the area. The caveat was that it is important that schemes include a range of products and a range of price points – including non-mainstream housing.

Table 16: Comparison of average dwellings per annum completion figures by site size across Greater Cambridge, OxCam Arc and Lichfields Start to Finish 2

Site Size	GCSP Average dpa	OxCam Average dpa	Lichfields Start to Finish 2 Average dpa
200-499	55	66	55
500-999	79	84	68
1000-1499	134	126	107
1500-1999	141	167	120
2000+	197	214	160
All sites	**109**	**119**	-

Source: AECOM analysis, Lichfields Start to Finish 2 (2020)

6.9 Where strategic sites have started delivering housing, the strategic sites data shows that sites are not built out at a flat average rate; rather the delivery rate increases over time and there are ‘peaks’ as outlets are delivering at the same time across different phases. **Table 17** shows the relationship between the number of outlets, the peak and average delivery rates for GCSP and OxCam Arc, and is based on the strategic sites data presented in **Appendix 1** which contains lead-in times and build-out rates information for each year of construction and the number of outlets (where available).

6.10 The data shows that in Greater Cambridge the peak is significantly higher than the average compared to the wider OxCam Arc. This reflects the fact that sites

are able to sustain a greater number of outlets, and also the nature of the sites (with a number of urban extensions to Cambridge adjacent to high value employment sites) means that there is a varied mix of typologies including flats and houses. It should be noted that information on the number of outlets was not always available and as such should be treated with a degree of caution.

Table 17: Comparison of build-out rate and outlet averages across Greater Cambridge and OxCam, by site size

Site Size	GCSP Build-out rates Average Outlets	GCSP Build-out rates Average Site size	GCSP Build-out rates Average Peak dpa	GCSP Build-out rates Average dpa	OxCam Build-out rates Average Outlets	OxCam Build-out rates Average Site size	OxCam Build-out rates Average Peak dpa	OxCam Build-out rates
200-499	1.0	301	84	55	1.3	331	85	66
500-999	1.0	766	233	79	2.0	701	109	84
1000-1499	-	1183	225	134	2.7	1252	173	126
1500-1999	2.0	1659	287	141	3.0	1704	201	167
2000+	6.0	5320	299	197	6.2	3523	301	214
All sites	2.0	1754	199	109	2.8	1292	158	119

Source: AECOM analysis

6.11 Completions per outlet are assumed to be ~50 per annum including affordable homes (30 market units with 20 affordable units, based on a policy requirement of 40% Affordable Homes).

6.12 Rather than have a flat delivery rate we recommend a phased approach to the delivery of housing (to account for the time taken for new infrastructure delivery, opening up works) rising to a peak during the middle of the build-out and then tailing off as the development approaches full completion (as identified in the literature and the data). This is something that was suggested during the development industry workshops.

6.13 We recommend that the number of outlets should be increased gradually until a peak number of outlets is reached and operating concurrently. Using the strategic sites data and number of outlets for each site size band we recommend adding a new outlet approximately every 500 dwellings. This is a cautious approach. We heard feedback through consultation that this can be as low as 200-350 units.

6.14 At new settlements we recommend that the maximum delivery rate is raised to 300dpa (compared to the Council's existing assumptions of 250 dpa) at the peak, but with a more gradual phasing in of development at the beginning of the build-out as infrastructure and new access points are delivered, and the new market becomes established.

6.15 Within the OxCam Arc and GCSP areas peak delivery rates have been observed above 300 dpa, for example at Milton Keynes East - where land was controlled by MKDP, the Council and Homes England rather than a private landowner or consortium of landowners. Therefore, for urban extensions we recommend the maximum delivery rate is raised to 350dpa (compared to the Council's existing assumptions of 250 dpa) at the peak, but with a more gradual phasing in of development at the beginning of the build-out as infrastructure and new access points are delivered, and the new market becomes established. The assumptions for urban extensions build in a recognition that they can achieve higher delivery rates in the peak years (as evidenced at Clay Farm and the Southern Fringe in the strategic sites database). For large urban extensions to Cambridge, where the demand is highest and there is some existing infrastructure available to allow sites to start development relatively quickly, the phasing is proposed to be shorter with a higher number of outlets at the peak.

6.16 The peak delivery rates in dpa and overall delivery rates in dpa are not the same due to the lengthy build out of new settlements and urban extensions which will extend beyond economic cycles, and due to the gradual build up and tail off of annual completions at the start and end of construction. Although the peak delivery rates for urban extensions (350 dpa) and new settlements (300 dpa are higher than previously assumed by the Councils, the overall average dpa over the duration of the development is lower at <275dpa for urban extensions and <250dpa at new settlements for the reasons outlined.

6.17 These build out rates are for mainstream market and affordable housing. There is scope for these to be increased markedly with the inclusion of specialist older peoples housing, student housing or private rented sector elements.

Non-strategic sites

6.18 As per **Chapter 5**, build-out rate data for non-strategic sites (under 200 dwellings) has been gathered from the GCSP monitoring database which has been supplemented where necessary with information from Public Access. The data has been broken down by HELAA typology with information gathered regarding the type and mix of housing delivered.

6.19 The monitoring data shows that flatted developments are generally completed in a single year as they are delivered as a single building, and therefore do not require annual build-out rate figures to be estimated. Housing developments, on the other hand, can deliver houses individually independent of one another and subsequently there is a need to estimate a build-out rate for such sites (where they are large enough for their build-out period to stretch beyond a single monitoring year).

6.20 The monitoring data shows that the site size threshold at which a predominantly housing development is completed across more than one monitoring year is generally 40 dwellings in the 'rural connected', 'rural minor/group' and 'large city edge / infill' typologies; and 50 dwellings in 'suburban' locations. Suburban schemes with a mix of houses and flats see this threshold rise to around 75 dwellings.

6.21 Where individual sites are large enough to accommodate higher numbers of dwellings than these thresholds it is proposed that these thresholds become the annual build-out rates. For example, if a 'rural connected' site is large enough

to accommodate 80 dwellings then it would be assumed to be built out over a two-year period at 40dpa. Rural infill sites are generally not of a sufficient size to be built out over more than one monitoring year.

Survey and workshop feedback

6.22 The survey made broad assumptions on build-out rates based on site size, number of outlets, and site type, and these assumptions were tested again during the workshop discussions to determine whether they were too conservative or optimistic. A range of factors affecting overall delivery at the construction stage were highlighted, suggesting that a more nuanced approach to the assumptions and to the range of sites considered may be required in order to confidently estimate build-out rates.

6.23 Large developers suggested that delivery rates averaging between 200-250 dpa across the development build-out is a reasonable estimate. An increased variety of housing products, including private rented sector and build-to-rent, offer the potential to increase build-out rates further. The example of North East Cambridge, with its expectation of 400dpa was cited, and it was noted that this could not be achieved simply through the involvement of multiple volume housebuilders – other types and tenures are required to build at high build-out rates. While there is a limit to the number of volume builders who can operate on a single site, one of the planning consultancies noted that healthy competition between developers on sites can boost build-out rates, as at the Southern Fringe.

6.24 Respondents reported that new settlements are less likely to be as widely attractive to buyers as urban extensions and will deliver more slowly. A specialist developer suggested the delivery study should take into account this variety in demand and its effect on build-out rates. Urban extensions can also deliver at higher densities which can increase delivery rates. Sales rates and delivery rates are high on sites close to Cambridge, but less so in the new settlement areas due to the increased distance to well-established employment areas. While it would be possible to create more employment land in new settlements, one specialist developer suggested this may not have the desired effect of attracting house buyers unless a major employer is involved, since Cambridge and its agglomeration benefits are key to sales in the city and its immediate surroundings.

6.25 While the councils should set the broad mix of affordable and market sale housing to be delivered on site, a major developer suggested that developers should determine the mix of private products on offer through each outlet, including price points on the sites, since they are more in tune with the market and know what will sell. A development consultancy noted that the standard method, while giving a clear target, has reduced clarity on housing mix. Local Plans need to be supported by clear guidance to housebuilders on the local housing needs.

6.26 Build-out rates vary considerably depending on the type of site, with greenfield sites being able to deliver much more quickly than complex brownfield sites in the urban area which may require under croft and/or basement parking. The diversity of sites needs to be captured within the study, and the Councils' development strategy needs to include an appropriate mix of sites, including small and medium sites, to ensure maximum delivery.

6.27 Allocating smaller sites will also provide more opportunity for small and medium enterprise (SME) builders on land which does not appeal to volume housebuilders, and Home England's efforts to bring these types of sites onstream were welcomed by a planning consultancy. However, one site promoter suggested that the sums involved in bringing forward large sites and the current tax regime means that landowners often have no option but to work with volume housebuilders and master developers rather than SMEs.

Summary

6.28 At the interim findings stage, prior to any stakeholder engagement, build-out rate assumptions of ~300 dwellings per annum were identified as a reasonable base assumption for the delivery rates of strategic sites. We now recommend a more nuanced approach to build-out rate assumptions reflecting the different sites and locations, with gradual build up to peak rates for strategic sites resulting in anticipated completions ranging from 50 to 350dpa and varying anticipated completions from 40 to 75dpa for non-strategic sites, depending on the site typology. The site typologies reflect the density and mix of housing, the proportion of flats (which unlike houses are built in blocks rather than completed individually), whether a site is of a size that is likely to be built over more than one monitoring year and the number of outlets likely to be operating at the site.

7. Lead-in time and build-out rate assumptions

7.1 The previous two chapters looked at lead-in times and build-out rates in isolation. This section brings together the lead-in time and build-out rate assumptions for each typology and sets out the assumptions to be used when creating updated housing trajectories in plan making and where necessary as part of demonstrating a five-year housing land supply. The assumptions are provided for strategic sites (over 200 dwellings) and non-strategic sites (below 200 dwellings).

7.2 As the Councils work their way through the plan-making process these strategic and non-strategic site assumptions can be refined as they are applied to individual sites, taking into account site-specific circumstances and the aspirations of individual landowners/developers. For example, where a housebuilder is promoting a site there is the potential to shorten the lead-in period as there is no need to dispose of the site to a housebuilder after outline permission is granted, and also there is the option of a hybrid application to allow some dwellings to be built more quickly as part of a first phase. Following consultation on the Greater Cambridge Local Plan: First Proposals it is recommended that the assumptions put forward in this report are reviewed in light of consultation feedback (and with the benefit of additional monitoring data) to assess whether the assumptions put forward remain suitable for application in future housing trajectories.

Strategic site assumptions

7.3 Based on an analysis of strategic sites (200 dwellings and above) across the OxCam Arc, we have set out a series of recommended assumptions for strategic sites (as shown in **Table 18**). These assumptions are considered realistic and reliable for use in plan-making in the Greater Cambridge area, reflecting the strength of the market but without being overly-optimistic and avoiding applying a single average to all site sizes/types.

7.4 For strategic sites (>200 dwellings) we have recommended an 8-9 year lead-in time from allocation to first completions on-site where some form of supplementary guidance is required such as a masterplan, design guide/code or Supplementary Planning Document (SPD), however if this were to be incorporated into the Local Plan allocation then this could shorten the lead-in time by 2-3 years.

Table 18: Strategic site lead-in time and build-out rate assumptions

Site Size	Plan adoption to submission*	Submission to Approval**	Approval to first Completion	Average build-out rate	Average outlets	Peak build-out rate	Peak outlets
200-499	2 years	4	2	50	1	50	1
500-999	2 years	4	2	90	1-2	100	2
1000-1499	3 years	4	2	120	2-3	150	3
1500-1999	3 years	4	2	145	3-4	200	4
2000+ New Settlement	3 years	4	2	200-250	4-5	300	5
2000+ Urban Extension	3 years	4	2	225-275	5	350	7

*N.B. this assumes the preparation of some form of supplementary guidance such as a masterplan, design guide/code or Supplementary Planning Document (SPD) to guide strategic developments of >200 dwellings. This timeframe could be reduced where no supplementary guidance or Green Belt release is required prior to submission of an application.

** Approval is defined as a legally implementable permission for example following approval of Reserved Matters. It is assumed that strategic site promoters will typically seek outline planning approval. However, it is acknowledged that some smaller sites in the 200-499 range could be brought forward for full planning and time savings would be achievable. This should be assessed on a case by case basis (where appropriate).

7.5 Taking the build out rate assumptions, we have then factored in the proposed plan period, an estimated possible date of plan adoption and lead-in time assumptions in **Table 19**. When applying the delivery assumptions to sites, we do not recommend exceeding the peak year or peak outlet assumptions. Instead for sites larger than the hypothetical examples, it is recommended that the build period is extended.

Table 19: Strategic site build-out rate phasing assumptions example

Size band	Y 1	Y 2	Y 3	Y 4	Y 5	Y 6	Y 7	Y 8	Y 9	Y 10	Y 11	Y 12	Y 13	Y 14	Y 15	Y 16	Y 17	Y 18	Y 19	Y 20	Total	Average dpa	Equivalent outlets
200-499	50	50	50	50	50																250	50	1.0
500-999	50	100	100	100	100	100	50														600	86	1.7
1000-1499	50	100	150	150	150	150	150	150	100	50											1200	120	2.4
1500-1999	50	100	150	200	200	200	200	200	150	100	50										1600	145	2.9
2000+ NS	50	100	150	200	250	300	300	300	300	300	300	300	300	300	300	250	200	150	100	50	4500	225	4.5
2000+ SUE	50	150	250	350	350	350	350	250	150	50											2300	230	4.6

Source: AECOM Analysis

Table 20: Example strategic site trajectories (including lead-in time post adoption, assumed April 2025)

Size band	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	38/39	39/40	40/41	Total in plan period	Peak dwellings per year	Average dwellings per year
200-499	-	-	-	-	-	-	-	-	-	-	-	-	50	50	50	50	50	-	-	-	-	250	50	50
500-999	-	-	-	-	-	-	-	-	-	-	-	-	50	100	100	100	100	100	50	-	-	600	100	86
1000-1499	-	-	-	-	-	-	-	-	-	-	-	-	-	50	100	150	150	150	150	150	150	1050	150	131
1500-1999	-	-	-	-	-	-	-	-	-	-	-	-	-	50	100	150	200	200	200	200	200	1300	200	163
2000+ NS	-	-	-	-	-	-	-	-	-	-	-	-	-	50	100	150	200	250	300	300	300	1650	300	206
2000+ SUE	-	-	-	-	-	-	-	-	-	-	-	-	-	50	150	250	350	350	350	350	250	2100	350	263

Source: AECOM Analysis

Non-strategic site assumptions

7.6 Based on an analysis of non-strategic sites (less than 200 dwellings) across Greater Cambridge (as set out in **Chapters 5** and **6**), we have set out a series of recommended assumptions for non-strategic sites (as shown in **Table 21)**. These assumptions are considered realistic and reliable for use in the Greater Cambridge area, reflecting the strength of the market but without being overly-optimistic and avoiding applying a single average to all site sizes/types.

Table 21: Non-strategic site lead-in time and build-out rate assumptions, by HELAA typology

Typology	Density Low	Low-Medium	Medium-High	High	GCSP Monitoring category	Lead-in times (submission to first completion) - Full	Lead-in times (submission to first completion) - Outline	Build-out rate flats	Build-out rate houses	Notes
Central	75-225dph 75	125	175	225	Cambridge Urban Area (City) (flats)	3	5	All built in one year	N/A	Assume outline permission sought only on the largest sites (200+ dwellings)
Suburban	40-120dph 40	60	90	120	Cambridge Urban Area (City) (flats and houses mix)	3	5	75dpa houses and flats mix	75dpa houses and flats mix	Assume outline permission sought only on the largest sites (200+ dwellings)
Suburban	40-120dph 40	60	90	120	Cambridge Urban Area (City) (houses)	3	5	N/A	50dpa	Assume outline permission sought only on the largest sites (200+ dwellings)
Rural connected	30-80dph 30	40	60	80	Rural Centre (South)	3	4	All built in one year	40dpa	Assume outline if larger than 50 dwellings

Typology	Density	Low	Low-Medium	Medium-High	High	GCSP Monitoring category	Lead-in times (submission to first completion) - Full	Lead-in times (submission to first completion) - Outline	Build-out rate flats	Build-out rate houses	Notes
Rural minor/group	30-40dph	n/a	30	40	n/a	Minor Rural Centre (South)	3	4	N/A	40dpa	Assume outline if larger than 50 dwellings
Rural Infill	15dph	15	n/a	n/a	n/a	Infill Village (South)	3	-	N/A	All built out in one year (small sites only)	Applications of this size unlikely to be made in outline
Large city edge / infill (<200 dwellings)	50-150dph	50	70	100	150	Edge of Cambridge (City), Cambridge Urban Area (South)	4	6	All built in one year	40dpa	Assume outline if larger than 50 dwellings
Large city edge / infill (>200 dwellings)	50-150dph	50	70	100	150	Strategic site (for large sites 200 dwellings+),	-	-	-	-	See preceding strategic sites section.
New Settlement	40-60dph	40	50	60	n/a	Strategic site (for large sites 200 dwellings+)	-	-	-	-	See preceding strategic sites section.

8. Review of Commentary on Growth Levels and Spatial Options in light of conclusions from this study

Introduction

8.1 Cambridge City Council and South Cambridgeshire District Council completed public consultation on the Greater Cambridge Local Plan First Conversation (Issues and Options) in early 2020. Building on the initial options set out in the First Conversation, the Councils identified three growth level options for homes and jobs and eight strategic (non-site specific) spatial options for testing. The Councils asked consultants producing Local Plan evidence studies, including the Housing Delivery Study, to assess the emerging growth level and strategic options and this assessment was published in the Interim Findings (November 2020).

8.2 The housing delivery commentary on the emerging growth levels and strategic options was based on the interim findings in relation to lead-in times and build out rates, which were largely the Councils' existing housing delivery assumptions for strategic sites which had been tested at the examinations of the extant Cambridge and South Cambridgeshire Local Plans. Having undertaken further work on the lead-in times and build out rates, including workshops with stakeholders, this final study includes updated assumptions (as set out in **Chapters 5-7**). A review of the commentary as published in the interim findings has therefore been undertaken and any changes to the assessment have been highlighted.

Assessment of growth level options and spatial scenarios

8.3 The application of the revised lead-in time and build-out rate assumptions for the typologies set out in **Chapter 7** mean that the housing trajectories for the spatial scenarios have changed slightly compared to the November 2020 interim findings, which utilised the Councils' existing assumptions.

8.4 The main difference is the new assumptions at the strategic sites, both in terms of lead-in times and build-out rates. For the minimum and medium growth level options, the Councils assumed that all new settlements and urban extensions would be able to deliver a peak of 250dpa. However, for the purposes of the strategic spatial options work, for the maximum growth level options, the Councils assumed that all new settlements and urban extensions would be able to deliver at 500dpa.

8.5 We have now confirmed that 500dpa is undeliverable, however we now recommend a maximum of 300dpa at the peak for new settlements and a maximum of 350 dpa at the peak for urban extensions larger than 2,000 dwellings.

8.6 Urban extensions take a shorter amount of time to build up to the peak and have a higher peak as some existing infrastructure is in place to open up the site, as well as Cambridge urban area being able to absorb more new-build dwellings and a greater mix of types, sizes and tenures than a new settlement at the beginning of the build-out phase.

8.7 Our recommended lead-in times also assume a longer period between allocation in an adopted plan and first completions on site than assumed by the Councils in the strategic spatial options work. This is due to the assumption that a subsequent supplementary document would need to be prepared after the allocation is included in an adopted Local Plan, and before a planning application can be determined.

8.8 In many of the scenarios these updated assumptions would result in amended five-year housing land supply calculations compared to the November 2020 interim findings as a result of the longer lead-in times or where there are higher peak build-out rates from new settlements or urban extensions, and for the maximum scenarios a reduced number of completions during the plan period. For the minimum and medium scenarios, an increased peak delivery rate generally compensates for the longer lead-in time over the plan period.

8.9 **Table 22** updates the assessment of pros and cons of the different housing growth level options from the Interim Findings taking into account the implications of the AECOM updated assumptions for lead-in times and build out rates for any supply needed in addition to existing commitments (as included in the baseline trajectory) and the AECOM updated supply from windfall sites, but without considering additional allocations. **Table 23** summarises how the spatial scenario conclusions in regard to how well they deliver against each minimum/medium/maximum housing requirement would change with the application of these new assumptions, but without finding any additional sources of supply to make up any shortfall against the total number of homes required for that scenario.

Table 22: Pros and cons of the different housing growth level options

Housing Requirement	Commentary (Pros/Cons)
a) Minimum (1,743 dpa)	**Pros:** Can be largely met via existing commitments and windfall allowance. Housing allocations would be required in the longer-term after 2032/33 to “top up” the baseline trajectory where annual delivery is predicted to drop below the annual requirement. Although the housing requirement can largely be met by existing anticipated supply, without additional supply later in the plan period to deliver annual completions in line with the annual requirement there will be under-delivery implications in terms of five-year housing land supply and the Housing Delivery Test. Supply is in line with historic trends which should be easily accommodated by the housebuilding industry. **Cons:** Wider sustainability concerns in terms of worsening housing affordability, increased commuting distances and environmental

Housing Requirement	Commentary (Pros/Cons)
	implications given the high level of existing employment commitments. Would not change the pattern of housing delivered e.g. similar mix of tenures, types and sizes.
b) Medium (1,996 dpa)	**Pros:** Requires additional supply of approximately 2,000 dwellings (excluding any over-supply buffer), alongside the existing commitments and windfall allowance. Housing allocations would be required in the medium-longer term after 2032/33 to "top up" the baseline trajectory where annual delivery is predicted to drop below the annual requirement. Without additional allocations providing additional supply in the mid-latter part of the plan period annual completions will fall below the annual requirement and there will be under-delivery implications in terms of five-year housing land supply and the Housing Delivery Test. This level of supply is consistently above historic trends, but not significantly so, which should be able to be accommodated by the housebuilding industry. Has the potential to change the pattern of housing delivered and rebalance supply to meet demand if there is a mismatch. **Cons:** Wider sustainability concerns in terms of worsening housing affordability, increased commuting distances and environmental implications given the high level of existing employment commitments and historic economic growth.
c) Maximum (2,711 dpa)	**Pros:** Requires additional supply of approximately 17,000 dwellings (excluding any over-supply buffer) alongside the existing commitments and windfall allowance. This would best match housing with the high employment growth forecast, reflecting the maximum employment growth scenario, with resultant benefits in terms of housing affordability and reduced rates of long-distance commuting. The housing and economic land supply would be more flexible to changing circumstances with less reliance on a smaller more concentrated basket of sites as would likely occur under a lower requirement. Has the potential to change the pattern of housing delivered and rebalance supply to meet demand if there is a mismatch. **Cons:** Given the level of supply through existing commitments (as included in the baseline trajectory) the plan period would begin with under-delivery, which in turn would require a stepped annual housing requirement later in the plan period to make up for under-delivery during the period from the plan base date to the adoption date (given the scale of the shortfall plus the significant increase in the requirement), and also to allow for lead-in times for new development to come on-stream.

Housing Requirement	Commentary (Pros/Cons)
	Previous recorded delivery in the Greater Cambridge area is 2,020 dwellings (in 2018/19) and the average over 2002/03-2018/19 is 1,439 dpa (as shown in **Appendix 2**), therefore this will be a significant jump in delivery over the period to 2041. This is true before any stepped annual housing requirement is added to the latter end of the plan period. This level of supply is significantly above historic trends (88%), and the adopted annual housing requirement in the Local Plans 2018 (62%), which may present issues for the local housebuilding industry in terms of gearing up to deliver that quantity of development in a short amount of time. Given our recommendations for revised lead-in times and build out rates for strategic sites, more new site allocations would be needed than anticipated by the spatial scenarios to deliver the requirement by 2041, which may not be achievable given the significant increase in development above historic trends.

Table 23: Revised spatial options assessment conclusions

Option	Revision
1a Densification (Minimum)	No significant change
1b Densification (Medium)	No longer any concern that there may not be sufficient HELAA capacity to support the medium option alongside the windfall allowance, because of the updated assessment to inform the revised (and increased) windfall allowance.
1c Densification (Maximum)	No longer able to demonstrate a five-year housing land supply at plan adoption. This option only delivers 90% of the overall housing requirement during the plan period (mainly due to the application of a 300dpa peak build-out rate at new settlements). It would require additional spatial allocations to meet this housing requirement if this lower built out rate was applied.
2a Edge of Cambridge - Non Green Belt (Minimum)	Less marginal five-year housing land supply at plan adoption. Smoother trajectory over the plan period and better supply in the middle of the plan period.
2b Edge of Cambridge - Non Green Belt (Medium)	Now able to demonstrate a five-year housing land supply at plan adoption. Anticipated under-delivery in 2032/33-2033/34 in the middle of the plan period.
2c Edge of Cambridge - Non Green Belt (Maximum)	No longer able to demonstrate a five-year housing land supply at plan adoption. This option only delivers 84% of the overall housing requirement during the plan period (mainly due to the application of a 300dpa peak build-out rate at new settlements). It would require additional

Option	Revision
	spatial allocations to meet this housing requirement if this lower built out rate was applied.
3a Edge of Cambridge - Green Belt (Minimum)	Still able to demonstrate a five-year housing land supply but slight under-delivery against the requirement in 2032/33-2033/34.
3b Edge of Cambridge - Green Belt (Medium)	Now able to demonstrate a five-year housing land supply at plan adoption.
3c Edge of Cambridge - Green Belt (Maximum)	Still not able to demonstrate a five-year housing land supply at plan adoption. This option only delivers 90% of the overall housing requirement during the plan period (mainly due to the application of a 300dpa peak build-out rate at new settlements). It would require additional spatial allocations to meet this housing requirement if this lower built out rate was applied.
4a New Settlements (Minimum)	No significant change
4b New Settlements (Medium)	Marginally able to demonstrate a five-year housing land supply at plan adoption. Under-delivery against the requirement in 2032/33 to 2034/35 which could require additional medium-term site allocations.
4c New Settlements (Maximum)	This option only delivers 82% of the overall housing requirement during the plan period (mainly due to the application of a 300dpa peak build-out rate at new settlements). It would require additional spatial allocations to meet this housing requirement if this lower built out rate was applied.
5a Villages (Minimum)	Delivery rates would drop below the housing requirement from 2036/37 onwards, resulting in application of the 20% buffer and the loss of a five-year housing land supply without additional longer-term allocations.
5b Villages (Medium)	Delivery rates would drop below the housing requirement from 2036/37 onwards, resulting in the loss of a five-year housing land supply without additional longer-term allocations.
5c Villages (Maximum)	Not able to demonstrate a five-year housing land supply at plan adoption. This option delivers 99% of the overall housing requirement during the plan period with no oversupply buffer. Cumulative delivery would be below the housing requirement until 2035/36.

Option	Revision
6a Public Transport Corridors (Minimum)	Slight under-delivery against the requirement in 2032/33-2033/34 which could require additional medium-term site allocations.
6b Public Transport Corridors (Medium)	Now able to demonstrate a five-year housing land supply at plan adoption.
6c Public Transport Corridors (Maximum)	Not able to demonstrate a five-year housing land supply at plan adoption. This option only delivers 85% of the overall housing requirement during the plan period (mainly due to the application of a 300dpa peak build-out rate at new settlements). It would require additional spatial allocations to meet this housing requirement.
7a Supporting a high-tech corridor by integrating homes and jobs (southern cluster) (Minimum)	No significant change
7b Supporting a high-tech corridor by integrating homes and jobs (southern cluster) (Medium)	Now able to deliver a five-year housing land supply at plan adoption under this scenario.
7c Supporting a high-tech corridor by integrating homes and jobs (southern cluster) (Maximum)	Still unable to demonstrate a five year housing land supply at plan adoption. This option only delivers 88% of the overall housing requirement during the plan period (mainly due to the application of a 300dpa peak build-out rate at new settlements). It would require additional spatial allocations to meet this housing requirement.
8a Expanding a growth area around transport nodes (Minimum)	The annual housing requirement is marginally met from 2032/33 until 2039/40 when it falls below the requirement which would require additional longer-term sites to minimise the risk of losing the five-year housing land supply later in the plan period.
8b Expanding a growth area around transport nodes (Medium)	The five-year housing land supply is now more marginal at plan adoption.
8c Expanding a growth area around transport nodes (Maximum)	Still unable to demonstrate a five year housing land supply at plan adoption. This option only delivers 88% of the overall housing requirement during the plan period (mainly due to the application of a 300dpa peak build-out rate at new settlements). It would require additional spatial allocations to meet this housing requirement if this lower built out rate was applied.

Summary

8.10 The revised findings with the new lead-in time, build-out rate, and windfall allowance assumptions applied do not significantly alter the main conclusions from the interim findings with regards to the three growth level options and eight spatial options. The eight spatial options at the minimum growth level option would still be capable of delivering their stated housing requirement and a five-year housing land supply at plan adoption, whilst the five-year housing land supply position at plan adoption for the eight spatial options at the medium growth level option has been improved slightly with the application of the new assumptions. To provide a sufficient buffer of sites we would still recommend that for these two growth level options the Councils include new allocations that provide short/medium/long-term 'top-up' supply alongside the existing commitments; and/or a small number of sites could be replaced with alternatives to help deliver a 'smoother' trajectory over the plan period.

8.11 Our findings still show that, when the revised assumptions in this report are applied, all of the eight spatial options at the maximum growth level option would be unachievable during the plan period and would not result in a five-year housing land supply at plan adoption. To deliver a five-year housing land supply at plan adoption, for any of the eight spatial options at the maximum growth level option, it would still require the application of a stepped annual housing requirement or the 'Liverpool method[9]' to address any shortfall in the five-year housing land supply. Based on the housing delivery assumptions set out in this report, any stepped annual housing requirement would require overall annual completions later in the plan period in excess of what is deemed to be achievable and would require levels of growth in excess of historical annual housing completion rates. Adding new sites that would deliver later in the plan period to make up for the shortfall earlier in the plan period would still likely be unachievable given the unprecedented levels of housing completions required to meet the overall housing requirement over the plan period.

8.12 Overall in terms of the housing growth level options we still consider that there is scope to deliver higher rates of delivery in Greater Cambridge than under the Medium growth level option.

8.13 It is still the case that generally the spatial options that mix short-medium term sources of supply (smaller sites in urban areas and villages) with longer-term sources (new settlements, urban extensions and Green Belt release) are better able to deliver across the plan period as a whole with a smoother trajectory. These sites also have different characteristics and are likely to result in variety in terms of location, size, type and tenure of housing, and also be more geographically spread to reduce competition, thus better matching the housing supply with demand.

8.14 The housing delivery assumptions in this report still show that in order to optimise housing delivery, demonstrate a five-year housing land supply and maintain delivery across the plan period, it will be necessary to gap-fill the 'troughs' in the housing trajectory with additional sources of supply. This should be underpinned by cautious but realistic lead-in times and build-out rates, and

[9] Whereby any shortfall since the start of the plan is added to the remainder of the plan period evenly; in contrast to the 'Sedgefield' method (advocated in the Planning Practice Guidance) which addresses the shortfall in the next five years.

an ‘over-allocation’ of land against the eventual housing requirement (we recommend at least a 10% buffer) in order to ensure that any unforeseen delays to delivering individual site allocations during the plan period, or changes to market conditions, do not result in under-delivery that would threaten the five year housing land supply or performance against the Housing Delivery Test.

9. Commentary on preferred housing requirement, preferred option development strategy and Green Belt hybrid

Introduction

9.1 This chapter assesses, with regard to housing delivery, the working assumption Greater Cambridge Local Plan preferred option housing requirement and development strategy, and a new blended Edge of Cambridge: Green Belt alternative, in the same way to that completed for the strategic spatial options in November 2020 (as updated in **Chapter 8** of this report).

9.2 Alongside other evidence assessments and the Sustainability Appraisal, consideration of the preferred option and Edge of Cambridge: Green Belt alternative alongside the strategic spatial options assessments ensures consideration of a range of reasonable alternative strategies.

Context

9.3 For the strategic spatial options stage, we completed assessments of the three growth levels and eight strategic spatial options. Further to this, ahead of the Preferred Options Plan consultation taking place in autumn 2021, officers from GCSP on behalf of the two councils shared a working assumption preferred option development strategy, including preferred growth level and distribution assumptions for dwellings, jobs and associated population growth.

9.4 It should be noted that use of the working assumption preferred option development strategy to inform this evidence base does not confer formal support by either council for that strategy. No decisions will be taken on development strategy assumptions until relevant member committees meet and approve documents for the Local Plan preferred options consultation. Such decisions will be informed by appraisal of reasonable alternatives. Setting out working assumptions in this and other Local Plan evidence base reports does not prejudice those decisions.

Growth level

9.5 Following consideration of the November 2020 strategic spatial options evidence bases and Sustainability Appraisal, GCSP have determined that the medium level of homes associated with the central employment scenario represents the objectively assessed need for homes in Greater Cambridge. Having determined this, the previously assessed alternative growth options of minimum and maximum are no longer considered to represent reasonable alternatives.

9.6 Further to the above, the Greater Cambridge Local Plan Preferred Option growth level is the medium homes level, including a 1:1 commuting ratio for housing growth generated by additional jobs above those supported by the Standard Method, in line with the councils' aims of limiting longer distance

commuting and thereby limiting carbon emissions (described as 'medium+'). We, and other evidence base consultants, did not assess the medium+ level of growth for the Strategic Spatial options in 2020, but we do not consider that rerunning the evidence testing of the strategic spatial options against a new medium+ housing figure would result in materially different outcomes to our November 2020 conclusions.

9.7 Drawing on the above, we are testing the new spatial options of 'preferred option' and 'Blended Strategy including Edge of Cambridge: Green Belt' based on the medium+ growth level, and have not assessed the impacts of the previous alternative growth levels (minimum, medium and maximum) in relation to these new spatial options.

Spatial distribution

9.8 The Councils' working assumption preferred option is a blended strategy including a number of broad supply locations. To ensure that the preferred option is tested against reasonable alternatives, an assessment of the preferred option blended strategy has been completed, against:

- the strategic spatial options tested last year; and
- other reasonable alternative blended strategies.

9.9 Some of the spatial options tested last year were blended strategies and others were not. The Councils reviewed the strategic spatial options tested in November 2020 to see whether these included a range of reasonable alternative blended strategies, noting that they don't need to test every possible reasonable alternative. The conclusion to this assessment was that the only alternative blended strategy not yet tested was one including development at Edge of Cambridge: Green Belt. The Councils therefore identified a blended development strategy distribution for this spatial option, which is directly comparable to the preferred option and broadly comparable to the strategic spatial options from November 2020.

Spatial options tested

Preferred Spatial Option

9.10 **Table 24** shows the Councils' preferred housing requirement and preferred spatial option.

9.11 The assumption is for a medium employment forecast and related housing growth level with a 1:1 'consume own smoke' commuting assumption for additional jobs above those supported by the standard housing minimum. The commuting assumption is different to that included in the previous 'medium' growth level option underpinning the initial evidence published in November 2020 and results in a higher housing figure with an additional 2,400 dwellings over the plan period.

9.12 The likely preferred option for employment and housing growth levels is based on the most likely employment forecast; however the plan can still provide a flexible supply in the event that the market is able to deliver faster than currently forecast.

9.13 The proposed preferred spatial option is a blended spatial strategy to meet a variety of needs.

9.14 The preferred spatial strategy seeks to increase housing delivery rates at the existing new towns, including making best use of existing allocations for Northstowe and Waterbeach new towns where delivery extends beyond the plan period. This would yield an additional 1,500 dwellings during the plan period, although not change the amount of homes overall.

9.15 North East Cambridge is the most notable new source of supply within Cambridge urban area and may deliver around 4,000 dwellings during the plan period.

9.16 At North West Cambridge an additional 1,000-1,500 dwellings could be delivered at Eddington to make best use of an existing allocation, and the Preferred Options assumes 1,000 additional homes during the plan period.

9.17 At the edge of Cambridge (outside of the Green Belt) Cambridge East has been selected as a preferred option as it is well connected to the city and has the potential to deliver a mix of homes and range of jobs, services and supporting infrastructure. It would make good use of safeguarded land in the existing Local Plans and is a brownfield site. Delivery would start post 2030 to follow the relocation of Marshalls.

9.18 The significant accessibility benefits offered by East West Rail, assuming proposals for a new railway line and Cambourne station reach a sufficiently advanced stage during the preparation stages of the Local Plan, is an opportunity to support a major expansion of Cambourne as part of the strategy for Greater Cambridge. Timing of delivery would most likely be post 2030 to follow the opening of the railway, and the plan would include policy safeguards to ensure adequate public transport capacity throughout delivery of the development in the event of proposals coming forward sooner. Given the ongoing work to progress the East West Rail project, there remains uncertainty about the potential location of an East West Rail station, and therefore the location and scale of growth for an expanded Cambourne. Because of this uncertainty, the Preferred Options consultation will set out a high-level approach identifying a broad location rather than a specific site. The 10,000 homes set out in **Table 24** is therefore purely indicative.

9.19 A number of small sites have been identified as suitable and deliverable within Cambridge urban area, within the Southern Cluster close to the research parks, and at villages elsewhere in the rural area with the best public transport connections.

Table 24: GCSP Preferred Housing Requirement and Preferred Spatial Option

	Homes 2020-2041	Homes Post 2041	Homes Full Build Out
Requirement	-	-	-
Preferred Option	44,331	N/A	N/A
Preferred Option (rounded)	44,400	N/A	N/A
10% buffer	4,440	N/A	N/A
Total	48,840	-	-
Current housing supply	-	-	-
Current supply - Housing Trajectory (1 April 2021)	35,500	11,200	-
Current supply - updates to Housing Trajectory	1,300	-	-
Additional homes to be identified	12,000	-	-
Additional sources of supply	-	-	-
Increased delivery rates at existing major sites delivering beyond 2041	-	-	-
Northstowe (faster delivery rates)	750	N/A	750
Waterbeach New Town (faster delivery rates)	750	N/A	750
Densification of Cambridge	-	-	-
North East Cambridge	3,900	4,450	8,350
North West Cambridge	1,000	-	1,500
Other smaller urban site	200	-	200
Edge of Cambridge non-Green Belt	-	-	-
Cambridge Airport (safeguarded land)	2,900	4,100	7,000
Western Cluster (focus on transport node)	-	-	-
Extension to Cambourne (East West Rail)	2,000	8,000	10,000
Southern Cluster (integrating jobs and homes)	-	-	-

	Homes 2020-2041	Homes Post 2041	Homes Full Build Out
For supporting jobs cluster in the southern part of Greater Cambridge, net zero carbon, and rural communities / small sites requirement	Approx. 600	N/A	Approx. 600
Dispersal to villages	-	-	-
Small element for supporting rural communities / small sites requirement	Approx. 900	N/A	Approx. 900
Total additional sources of supply	12,900	16,600	28,550
Total including current and additional sources of supply	49,700	-	65,350
Surplus	900	N/A	N/A

Alternative Edge of Cambridge: Green Belt blended strategy

9.20 The Edge of Cambridge: Green Belt blended strategy alternative is identical to the working assumption preferred option strategy except for the inclusion of residential development at Edge of Cambridge: Green Belt in place of additional development around Cambourne. The precise location of this Green Belt development is not specified. **Table 25** overleaf shows the Council's preferred housing requirement and alternative blended spatial option.

Table 25: GCSP Preferred Housing Requirement and Alternative Edge of Cambridge: Green Belt blended strategy

	Homes 2020-2041	Homes Post 2041	Homes Full Build Out
Requirement	-	-	-
Preferred Option	44,331	N/A	N/A
Preferred Option (rounded)	44,400	N/A	N/A
10% buffer	4,440	N/A	N/A
Total	48,840	-	-
Current housing supply	-	-	-
Current supply - Housing Trajectory (1 April 2021)	35,500	11,200	-
Current supply - updates to Housing Trajectory	1,300	-	-
Additional homes to be identified	12,000	-	-
Additional sources of supply	-	-	-
Increased delivery rates at existing major sites delivering beyond 2041	-	-	-
Northstowe (faster delivery rates)	750	N/A	750
Waterbeach New Town (faster delivery rates)	750	N/A	750
Densification of Cambridge	-	-	-
North East Cambridge	3,900	4,450	8,350
North West Cambridge	1,000	-	1,500
Other smaller urban site	200	-	200
Edge of Cambridge non-Green Belt	-	-	-
Cambridge Airport (safeguarded land)	2,900	4,100	7,000
Edge of Cambridge Green Belt	-	-	-
Edge of Cambridge Green Belt - non site specific	2,000	-	2,000
Southern Cluster (integrating jobs and homes)	-	-	-

	Homes 2020-2041	Homes Post 2041	Homes Full Build Out
For supporting jobs cluster in the southern part of Greater Cambridge, net zero carbon, and rural communities / small sites requirement	Approx. 600	N/A	Approx. 600
Dispersal to villages	-	-	-
Small element for supporting rural communities / small sites requirement	Approx. 900	N/A	Approx. 900
Total additional sources of supply	12,900	8,600	22,550
Total including current and additional sources of supply	49,700	-	59,350
Surplus	900	N/A	N/A

Approach

9.21 This Chapter assesses the above new spatial options using the same methodology as applied to the 24 spatial options originally assessed in the Interim Report (November 2020), now updated as set out in **Chapter 8**. The assumptions used are the AECOM assumptions for lead-in times and build-out rates as outlined in **Chapter 7**, and the windfall allowance assumptions as set out in **Chapter 3**.

Findings

9.22 This section comments on the deliverability of the preferred housing requirement, the preferred spatial option, and the alternative blended strategy option to inform the preferred options consultation in Autumn 2021. It should be noted that this assessment is carried out using the assumptions from this final report, which are the same assumptions as used to update the November 2020 commentary on the spatial options (as set out in **Chapter 8**) to enable a comparison to be made on a like for like basis with the other growth level requirements and spatial options previously tested.

Housing requirement commentary

9.23 The Housing Delivery Study Interim Report (November 2020) recommended that the Councils considered a 'medium plus' housing requirement that was higher than the medium requirement tested at that time, but not as high as the maximum requirement tested at that time (which the Interim Report found to be undeliverable). The Housing Delivery Study Interim Report states in the conclusion:

> "In light of the high level of commitments and the imbalance between committed jobs and housing, the Minimum options could lead to unsustainable development and increased levels of in-commuting. The Medium growth scenario envisages a broadly similar level of growth in line with recent delivery rates. We consider that there is scope to deliver higher rates of delivery in Greater Cambridge under the Medium growth scenario."
>
> "… we would recommend that a "Medium Plus" option should be considered by the Councils with a cautious trajectory assumptions applied at "reserve sites" (e.g. North East Cambridge and Cambridge Airport where the specific timing of land availability is currently uncertain as at the time of writing). Over-allocating against the housing requirement will provide an ample buffer/headroom against stalled or non-delivery on some sites."

9.24 The difference between the medium housing growth level tested for the strategic options previously (42,000 or 46,200 including a 10% buffer) and the medium+ housing growth level ('consume own smoke') (44,400 or 48,840 including a 10% buffer) being taken forward for preferred options is 2,400 (or 2,640 including the buffer), which forms around 6% of the total number of homes GCSP are planning for. This compares with the maximum option of 56,900 (or 62,600 including a 10% buffer) homes. The preferred medium+ level is around 20% of the difference between the two.

9.25 The commentary in **Table 26** below assesses the pros and cons of this 'medium plus' housing requirement figure relative to the baseline housing trajectory (i.e. what is committed, with windfalls and without new allocations), and should be read alongside **Table 22** in this report which updates Table 3.8 from the Interim Findings (November 2020) which considered the minimum, medium and maximum housing requirement options.

Table 26: Assessment of the medium plus housing requirement option

Housing Requirement	Commentary (Pros/Cons)
Medium 'plus' (2114 dpa)	**Pros:** New housing allocations would be required in the medium-longer term after 2029/30 to "top up" the baseline trajectory where annual delivery is predicted to drop below the annual requirement. The housing requirement would be largely met in the short term through existing commitments. Without additional allocations in the mid-latter part of the plan period there will be under-delivery implications in terms of five-year housing land supply and the Housing Delivery Test. This better-matches housing delivery with committed employment opportunities, with resultant benefits in terms of housing affordability and reduced rates of long-distance commuting. The number of committed jobs to homes would be balanced to meet housing need nearest to where it arises. The housing and economic land supply would be more flexible to changing circumstances with less reliance on a smaller more concentrated basket of sites as would likely occur under a lower requirement. **Cons:** Previous recorded delivery in the Greater Cambridge area is 2,020 dwellings (in 2018/19) and the average over 2002/03-2018/19 is 1,439 dpa, therefore this requirement will be a significant jump in delivery over the period to 2041. Sustaining such high levels of completions is challenging, however it is considered a small delivery risk given the strength of the housing market locally and the relationship with the planned number of jobs. It should be noted that no concerns were raised in the engagement with the development industry about the ability to deliver against this requirement.

Spatial options commentary

9.26 The Interim Report identified that the minimum and medium spatial options "would be capable of delivering their stated housing requirements and a five-year housing land supply at plan adoption" and that:

> "Generally, the options that mix short-medium term sources of supply (smaller sites in urban areas and villages) with longer-term sources (new settlements, urban extensions and Green Belt release) are better-able to deliver across the plan period as a whole with a smoother trajectory. These sites also have different characteristics and are likely to result in variety in terms of location, size, type and tenure of housing, and also be more geographically spread to reduce competition, thus better-matching the housing supply with demand.

9.27 In light of this feedback, feedback from other consultants carrying out evidence base studies, and the emerging preferred 'medium plus' housing requirement, GCSP has developed two new spatial options to test: the preferred spatial strategy and a Green Belt hybrid. The difference between the two options is that the preferred approach includes 2,000 additional dwellings in the plan period 2020-41 at Cambourne, whereas the Green Belt hybrid includes 2,000 dwellings at the Edge of Cambridge within the Green Belt instead.

9.28 The working assumption preferred option strategy is relatively similar in its geographical distribution to Strategic Spatial Option 2: Edge of Cambridge - Non Green Belt tested in November 2020 in the Interim Report.

9.29 Now that the Councils are considering a 'medium plus' requirement it is necessary to test whether the proposed spatial strategy will be able to deliver this over the plan period. **Table 27** contains a summary of the pros and cons of the two options. The detailed housing trajectory and delivery analysis for these two options is provided in **Appendix 9**.

Table 27: Spatial Options Commentary (preferred option and Green Belt hybrid)

Option Focus and Description	Pros	Cons	Other comments
Preferred Option • Northstowe (faster delivery rates) • Waterbeach New Town (faster delivery rates) • Densification (North East Cambridge, North West Cambridge and urban sites) • Edge of Cambridge non-Green Belt (Cambridge Airport) • Extension to Cambourne (East West Rail) • Southern Cluster (approx. 600 dwellings) • Dispersal to villages (approx. 900 dwellings)	• Close geographical proximity between key employment locations and homes which will ensure that housing delivery is responsive to job creation, meeting demand from in-migrants. The medium plus housing requirement would match job creation to housing development so that demand is met in full. • Ability to provide housing for ownership and affordable housing. • Opportunity to offer self/custom build. • Ability to provide specialist housing if required e.g. older persons extra care because of existing facilities, services and amenities. • Private rented supply e.g. Build to Rent as development would be relatively higher density at Cambridge urban area and along transport corridors. • Smaller allocations in Cambridge and at the villages will provide early delivery post adoption until new strategic sites begin to deliver.	• North East Cambridge – there may be a risk to relying on delivery from this site at the end of the plan period subject to progress in the process to relocate the Cambridge Wastewater Treatment Plant. The relocation of the works has secured government funding through the Housing Investment Fund and Anglian Water has started the process of preparing a Development Control Order for an alternative site. The level of confidence in the availability and deliverability of the site should be kept under review during the plan making process. • Cambridge Airport – there may be a risk to rely on delivery from this site during the latter part of the plan period, notwithstanding that Marshall has confirmed to the Councils its commitment to relocate and seeks to demonstrate the availability and deliverability of the site, whilst being keen to stress that no final decisions have yet been made. It advises that it has a signed option agreement at Cranfield Airport, Bedford and that	• The balance to find under this scenario spreads development across villages and the southern cluster which could deliver sufficient small sites to meet NPPF paragraph 69 requirements if they are not progressed as single allocations.

Option Focus and Description	Pros	Cons	Other comments
	• Providing development in the villages (alongside an urban extension and a new settlement) will provide a wider choice of housing in the market for people in terms of size and location and will increase the market absorption rate. • Able to demonstrate a five-year housing land supply at plan adoption. • North East Cambridge – the relocation of the works has secured government funding through the Housing Investment Fund and Anglian Water has started the process of preparing a Development Control Order for an alternative site. • Cambridge Airport – Marshall has confirmed to the Councils its commitment to relocate and has advised that it has a signed option agreement at Cranfield Airport, Bedford and that there would be no commercial, planning, technical or regulatory impediment to a move to Cranfield and vacant possession is anticipated by 2030.	there would be no commercial, planning, technical or regulatory impediment to a move to Cranfield and vacant possession is anticipated by 2030. The position should be kept under review during the plan making process as appropriate. • If the phasing of East-West Rail and the new railway station at Cambourne is delayed then this could delay completions from the Cambourne Expansion. Uncertainty over the location of the new station could also affect lead-in times. • Potential competition between Cambourne, Bourn Airfield and the Cambourne Extension with all three under construction at the mid-latter part of the plan period, however the committed Cambourne West site would be past its peak and starting to decline before peak delivery would be reached at a new Cambourne allocation. • Under-delivery against the requirement in 2032/33 and marginal over-delivery in 2033/34 (using AECOM assumptions) which could require additional medium-term site	

Option Focus and Description	Pros	Cons	Other comments
		allocations or earlier development of longer-term strategic sites without a subsequent SPD/AAP to guide development.	
Green Belt Hybrid • Northstowe (faster delivery rates) • Waterbeach New Town (faster delivery rates) • Densification (North East Cambridge, North West Cambridge and urban sites) • Edge of Cambridge non-Green Belt (Cambridge Airport) • Edge of Cambridge Green Belt (non-site specific) • Southern Cluster (approx. 600 dwellings)	• Close geographical proximity between key employment locations and homes which will ensure that housing delivery is responsive to job creation, meeting demand from in-migrants. The medium plus housing requirement would match job creation to housing development so that demand is met in full. • Ability to provide housing for ownership and affordable housing. • Opportunity to offer self/custom build. • Ability to provide specialist housing if required e.g. older persons extra care because of existing facilities, services and amenities. • Private rented supply e.g. Build to Rent as development would be relatively higher density at Cambridge urban area. • Smaller allocations in Cambridge and allocations at the villages will provide early delivery post adoption	• North East Cambridge – there may be a risk to relying on delivery from this site at the end of the plan period subject to progress in the process to relocate the Cambridge Wastewater Treatment Plant. The relocation of the works has secured government funding through the Housing Investment Fund and Anglian Water has started the process of preparing a Development Control Order for an alternative site. The level of confidence in the availability and deliverability of the site should be kept under review during the plan making process. • Cambridge Airport – there may be a risk to rely on delivery from this site during the latter part of the plan period, notwithstanding that Marshall has confirmed to the Councils its commitment to relocate and seeks to demonstrate the availability and deliverability of the site, whilst being keen to stress that no final decisions	• The balance to find under this scenario spreads development across villages and the southern cluster which could deliver sufficient small sites to meet NPPF paragraph 69 requirements if they are not progressed as single allocations.

Option Focus and Description	Pros	Cons	Other comments
• Dispersal to villages (approx. 900 dwellings)	until new strategic sites begin to deliver. • Providing development in the villages (alongside an urban extension and a new settlement) will provide a wider choice of housing in the market for people in terms of size and location and will increase the market absorption rate. • Able to demonstrate a five-year housing land supply at plan adoption. • North East Cambridge – the relocation of the works has secured government funding through the Housing Investment Fund and Anglian Water has started the process of preparing a Development Control Order for an alternative site. • Cambridge Airport – Marshall has confirmed to the Councils its commitment to relocate and has advised that it has a signed option agreement at Cranfield Airport, Bedford and that there would be no commercial, planning, technical or regulatory impediment to a move to Cranfield and vacant possession is anticipated by 2030.	have yet been made. It advises that it has a signed option agreement at Cranfield Airport, Bedford and that there would be no commercial, planning, technical or regulatory impediment to a move to Cranfield and vacant possession is anticipated by 2030. The position should be kept under review during the plan making process as appropriate. • Lead-in times extended for the Edge of Cambridge site(s) compared to other options due to the requirement to release Green Belt land through an adopted plan before applications can be approved (i.e. applications cannot be “twin-tracked” during plan-making unless “very special circumstances” can be demonstrated). The lead-in times are dependent on the size and complexity of the sites allocated though. • Potential for the Green Belt site allocations to compete with North East, North West Cambridge and Cambridge Airport and reduce delivery rates under this scenario as they would be delivering a similar product	

Option Focus and Description	Pros	Cons	Other comments
		in a similar location concurrently at scale. • Under-delivery against the requirement in 2032/33 (using AECOM assumptions) which could require additional medium-term site allocations or earlier development of longer-term strategic sites without a subsequent SPD/AAP to guide development.	

Summary

9.30 With regard to the preferred housing requirement option – 'medium plus' – this performs similarly to the previously assessed 'medium' requirement but slightly better in that it better-matches housing supply against jobs. Delivering against medium plus requires new allocations in the mid-latter part of the plan period as the beginning of the plan period is largely met by existing commitments, which should result in the ability to deliver a five-year housing land supply at plan adoption and pass the Housing Delivery Test. No concerns were raised in the engagement with the development industry about the ability to deliver against this requirement

9.31 With regard to the new spatial scenarios, both are considered to be realistic and deliverable spatial options during the plan period as they bring forward a blended supply of sites that would 'top up' the baseline housing supply in the mid-latter part of the plan period to meet the medium plus requirement.

9.32 The difference between the two spatial options is approximately 2,000 dwellings at either Cambourne Additional (the preferred option) or in the Green Belt. The lead-in times are both significant (dependent on identification of the location of the new station at Cambourne and Green Belt release through the adoption of a new Local Plan) and the build-out rates are similar. The preferred option would begin to phase in additional dwellings at Cambourne as the existing Cambourne West committed site is built out, which should reduce any potential market absorption issues.

10. Assessment of Preferred Option Housing Trajectory

Introduction

10.1 In light of our Interim Findings and further testing of options through this report, their updated housing trajectory (April 2021) and other evidence base information prepared to support the preferred options version of the Local Plan, the Councils have created a detailed housing trajectory for the final preferred option as set out in the Greater Cambridge Local Plan: First Proposals that will be subject to public consultation in autumn 2021. This detailed trajectory is provided in **Appendix 10**.

10.2 This chapter assesses this detailed trajectory and comments on the overall deliverability of the final Preferred Option, drawing on the recommendations included in this study and the latest available information provided by the Councils, and reviewing where the Councils have taken an approach that differs from the high-level AECOM assumptions presented earlier in the report.

10.3 The final Preferred Option housing trajectory starts with the Greater Cambridge housing trajectory (April 2021) as its basis. It then adds additional supply identified from a further review of existing allocations, the review of the windfall allowance undertaken in this report, and from an assessment of anticipated delivery from Use Class C2 student and older peoples communal accommodation with planning permission or from an adopted allocation, before finally adding the anticipated supply from the new sites proposed for allocation in the Greater Cambridge Local Plan: First Proposals. Each of these elements is reviewed in the sections below.

Greater Cambridge housing trajectory (April 2021)

10.4 This Preferred Options housing trajectory uses the latest Greater Cambridge housing trajectory published in April 2021 as its starting point for understanding anticipated delivery from existing commitments.

10.5 The Councils prepared this housing trajectory by assessing the deliverability and / or developability of all adopted allocations, sites with planning permission, and sites of 10 dwellings or more with a resolution to grant planning permission. The Councils have considered information gathered from a variety of sources, including a survey of developers, landowners and housebuilders, site visits, Planning Performance Agreements, housebuilders' websites, and progress of the site through the planning application process. Having been prepared in 2021 it takes account of the impacts of Covid-19 on housing delivery.

10.6 This records that 31,265 dwellings are anticipated to be completed in 2020-2041 on existing adopted allocations and sites with planning permission. It anticipates a further 4,220 dwellings will be completed in 2020-2041 from the windfall allowance. Together this gives an overall total anticipated in 2020-2041 of 35,485 dwellings as recorded in the published housing trajectory (April 2021).

10.7 We consider that through engaging with the development industry and drawing upon monitoring evidence the Councils have taken a robust approach to the preparation of their housing trajectory, and therefore consider that the anticipated delivery from existing commitments as set out in the Greater Cambridge housing trajectory (April 2021) is robust and reliable. It has taken into account the impact of Covid-19 on committed sites, and other updated information on progress on the delivery of sites, and therefore uses the best available information to forecast delivery.

Additional supply from review of allocations, review of windfall allowance, and supply from student or older people's accommodation

Review of allocations

10.8 The Councils have also undertaken a review of the deliverability and / or developability of all their adopted allocations, including seeking further information from the landowner / developer or agent where necessary, and have re-assessed those without planning permission through the HELAA. As a result the Councils have amended the deliverability and / or developability assessment and / or the anticipated site capacity of some of the adopted allocations. This results in 161 additional dwellings to those anticipated in the Greater Cambridge housing trajectory (April 2021), due to amendments to the following sites:

- Willowcroft, 137-143 Histon Road, Cambridge (Site R2) – updated information received that demonstrates deliverability and/or developability, and a reassessment of the site capacity, results in 131 additional dwellings anticipated in 2020-2041. The housing trajectory (April 2021) does not anticipate any dwellings from this site in 2020-2041.
- Henry Giles House, 73-79 Chesterton Road, Cambridge (Site R4) – amended boundary to exclude Carlyle House and a reassessment of the site capacity, results in 8 less dwellings anticipated in 2020-2041. The housing trajectory (April 2021) anticipates 48 dwellings from this site in 2020-2041.
- Camfields Resource Centre and Oil Depot, 137-139 Ditton Walk (Site R5) – updated information received that demonstrates deliverability and/or developability, results in 21 additional dwellings anticipated in 2020-2041. The housing trajectory (April 2021) already anticipates 14 dwellings from this site in 2020-2041.
- Travis Perkins, Devonshire Road, Cambridge (Site R9) – reassessment of the site capacity, results in 17 additional dwellings anticipated in 2020-2041. The housing trajectory (April 2021) already anticipates 43 dwellings from this site in 2020-2041.

10.9 The Councils have assessed the anticipated delivery from these sites based on information gathered from a variety of sources, and therefore we consider that

the anticipated delivery from these sites is robust and reliable, and takes account of the best available information.

Review of Windfall Allowance

10.10 The Councils have included additional anticipated delivery from the windfall allowance, drawing upon the analysis set out in **Chapter 3**. The Greater Cambridge housing trajectory (April 2021) assumes a total of 350 dwellings a year from the windfall allowance (130 dwellings a year in Cambridge and 230 dwellings a year in South Cambridgeshire) based on the Councils previous evidence to justify this prepared in 2019. **Chapter 3** outlines that 185-195dpa would be appropriate for Cambridge and 240-255dpa would be appropriate for South Cambridgeshire, giving a total of 425-450dpa.

10.11 The Councils have followed the same principles as applied to the windfall allowance in the Greater Cambridge housing trajectory (April 2021), and used the lower estimate for each area, to calculate additional anticipated delivery from this source of supply. The Councils assume that the windfall allowance will start delivering after the five year supply period, in which the majority of existing windfall sites with planning permission will be delivered, and that where the windfall allowance is included that it together with any anticipated delivery from windfall sites with planning permission will not deliver more than the total number of dwellings anticipated from windfall sites (425 dwellings a year). This means that in some years the windfall allowance is reduced. An additional 1,125 dwellings are anticipated from the windfall allowance in 2020-2041.

10.12 We consider that it is appropriate for the Councils to include additional anticipated delivery from the windfall allowance, as our analysis shows that their previous assumption of 350 dwellings a year is an underestimate. For the reasons set out in **Chapter 3**, we consider that the anticipated delivery from the windfall allowance included by the Councils in their preferred options housing trajectory is robust and reliable.

Supply from student and older people's accommodation

10.13 The Greater Cambridge housing trajectory (April 2021) does not include any anticipated completions in 2020-2041 from communal (use class C2) accommodation provided in the form of bedspaces – either for students or older people – due to that housing trajectory being used to demonstrate how the Councils can deliver their adopted housing requirements. The Councils' adopted housing requirements were calculated based on a methodology that considered communal accommodation separately, and therefore the Councils have not been counting dwelling equivalents of communal accommodation towards delivering their housing requirements. The Greater Cambridge housing trajectory (April 2021) does include any self-contained dwellings for students or older people.

10.14 However, as the Councils' preferred option housing requirement for the new Greater Cambridge Local Plan has been calculated using the government's standard methodology as a starting point and considering anticipated economic growth scenarios as a variation on that, it is now consistent with the

methodology set out in national planning policy and guidance to include such accommodation.

10.15 National planning guidance also sets out that communal (use class C2) accommodation provided in the form of bedspaces can be counted towards delivering the housing requirement, by calculating its dwelling equivalent. The Housing Delivery Test rulebook sets out the ratios to be used to convert bedspaces to dwellings for both student accommodation and older peoples accommodation.

10.16 For the purposes of understanding how existing commitments will contribute towards delivering the preferred option housing requirement, the Councils have therefore assessed the deliverability and / or developability of the communal (use class C2) accommodation anticipated on any extant planning permissions and allocations, using the same approach as for housing developments and as set out in the Greater Cambridge Housing Trajectory and Five Year Land Supply document (April 2021). As a result, the equivalent of 427 dwellings are anticipated in 2020-2041 from developments of communal accommodation that were not included in the 2021 trajectory.

10.17 As the Councils have assessed the anticipated delivery from these sites based on information gathered from a variety of sources, including engagement with the developers at each site, we consider that the anticipated delivery from these sites is robust and reliable, and takes account of the best available information.

Additional sites

10.18 The Greater Cambridge Local Plan: First Proposals proposes the allocation of new sites alongside the densification of existing sites and faster delivery rates on existing sites as the approach for meeting the preferred option housing requirement. This is in addition to the existing supply from existing commitments and the windfall allowance, as outlined above.

Faster delivery rates at Northstowe and Waterbeach New Town

10.19 The Greater Cambridge housing trajectory (April 2021) anticipates that Northstowe and Waterbeach New Town will deliver up to 250 dwellings per annum, except in a few specific years at Northstowe. For Northstowe, higher build out rates are included for the years in which Urban Splash are delivering Phase 2A as these dwellings are being delivered using Modern Methods of Construction and therefore are offering a different product to the rest of the homes currently being built at Northstowe.

10.20 The longer-term trajectories for Northstowe and Waterbeach New Town have been set with a peak of 300dpa as per our recommendation in **Chapter 7**. This results in an additional 50dpa on these sites from 2026/27 onwards (after the five year supply period) and an anticipated additional 750 dwellings on each of these sites within the plan period. The Councils have assumed the additional delivery after the developments have started construction and therefore there is a gradual build up to this new peak. This is considered realistic in light of our

research and engagement with the development industry, and our recommendations in this report.

North East Cambridge

10.21 The Councils are proposing mixed use development at North East Cambridge, including residential uses. The Councils have assumed that North East Cambridge will have some early delivery on the Chesterton Sidings parcel as there are already pre-application discussions in progress. For the remainder of the Chesterton Sidings parcel and the other parcels, the Councils have assumed that delivery will start in 2030/31 soon after the Water Treatment Plant has been relocated. The build out rates for this are based on our recommendations as set out in **Chapter 7**, with a gradual build-up of annual completions to a peak of 350 dwellings a year.

10.22 The Councils have site-specific evidence that supports the anticipated early delivery of some dwellings on this site, ahead of the relocation of the Water Treatment Plant. This initial parcel is anticipated to peak at 200dpa which is not considered unrealistic when considering experience at the Southern Fringe.

10.23 With regard to the remainder of this site, the Councils assumptions result in a lead-in time that is 3 years shorter than our assumptions as set out in **Chapter 7**. The AECOM strategic site typologies use cautious lead-in time assumptions and highlight the potential for 2-3 year time savings should the Councils depart from their historic approach of requiring additional documents to be prepared after the initial adoption of a site allocation policy in the Local Plan. This is something that was supported in the development industry workshops to reduce lead-in times.

10.24 The Councils are currently preparing an Area Action Plan for this site alongside the Local Plan, and there is the potential that the two plans could be on very similar timetables. As set out in the Greater Cambridge Local Development Scheme, the Councils are keeping under review whether it is appropriate to merge the AAP into the Local Plan at the Proposed Submission stage. The build-out rate for the remainder of the site uses our assumptions of a peak of 350dpa, and is therefore considered to be realistic. The anticipated delivery from this site should be kept under review should the relocation proposals for the Water Treatment Plant not transpire as envisaged.

North West Cambridge

10.25 The Greater Cambridge housing trajectory (April 2021) anticipates that the existing outline planning permission for this site will be built out at up to 250 dwellings per year until it is completed in 2031/32. The Councils are anticipating that additional dwellings will be delivered on this site through densification, and therefore the Councils have assumed that these dwellings will be delivered once the existing permission has been completed and continuing the same build out rates. The housing trajectory for additional supply from this site therefore shows 250 dwellings a year from 2032/2033 to 2035/2036. This trajectory for North West Cambridge differs to our typology assumptions for an urban extension, however it is considered that there are site-specific reasons that justify this.

10.26 As densification within an existing allocated site that is already under construction (Eddington) it is considered that the Councils' assumptions are realistic.

Cambridge East (Cambridge Airport)

10.27 The Councils are proposing the allocation of the safeguarded land at Cambridge Airport. This phase is currently in use as Cambridge Airport, and is separate to the sites north of Newmarket Road (Marleigh/Wing), north of Cherry Hinton, and land at Coldham's Lane. The Councils have assumed that Cambridge East will start delivering in 2031/2032 after Marshalls have relocated the airport uses, and that build out rates will be based on our assumptions for urban extensions of a gradual increase in annual completions to maximum of 350 dwellings a year.

10.28 The Interim Findings stated the following for the spatial options within which Cambridge Airport was a component of the supply:

> "There may be a risk to relying on housing delivery from Cambridge Airport during the middle of the plan period, notwithstanding that Marshall recently confirmed to the Councils its commitment to relocate and seeks to demonstrate the availability and deliverability of the site, whilst being keen to stress that no final decisions have yet been made. It advises that it has a signed option agreement at Cranfield Airport, Bedford and that there would be no commercial, planning, technical or regulatory impediment to a move to Cranfield and vacant possession is anticipated by 2030. The position should be kept under review during the plan making process as appropriate."

10.29 Using the assumptions in **Chapter 7** the typology for this site would assume that first completions would be in 2033/34 ramping up to 350dpa from 2036/37 onwards as an 'urban extension' to Cambridge. This is on the assumption that an additional SPD or AAP is required after the site is allocated in the new Local Plan. This additional layer of supplementary guidance extends the lead-in time.

10.30 The Councils' Preferred Options trajectory has a 2 year shorter lead-in time than our assumptions with first completions in 2031/32 and 350dpa from 2035/36 onwards. This reflects the anticipated date for Marshalls to relocate the airport uses, and that the Councils will either not require a supplementary guidance document after an allocation is made in the new Local Plan or that this will be prepared alongside the final stages of the Local Plan and adopted around the same time. On this basis the lead-in times and build-out rates are considered realistic, although this should be kept under review should relocation proposals not transpire as envisaged.

Cambourne additional

10.31 The Councils are proposing the allocation of additional homes at Cambourne. The Councils have assumed that this broad location will start delivering in 2032/2033 after the opening of the new railway station, with build out rates based on our assumptions for new settlements of a gradual increase in annual completions to maximum of 300 dwellings a year. Using the assumptions in **Chapter 7**, the new settlement typology for this site would assume peak annual

completions of 300dpa with delivery commencing in 2033/34. This is on the assumption that an additional SPD or AAP is required after the site is allocated in the new Local Plan, and before a planning application can be determined. This additional layer of supplementary guidance extends the lead-in time.

10.32 The Councils' assumptions in the Preferred Options trajectory result in delivery starting in 2032/33 which is 1 year earlier than our assumption. This reflects the anticipated date for the new station at Cambourne to be opened as part of East West Rail and that the Councils will either not require a further supplementary guidance document after an allocation is made in the new Local Plan or that this will be prepared alongside the final stages of the Local Plan and adopted around the same time. A new station at Cambourne is anticipated to be operational from 2030 onwards, so the first completions are anticipated to be 2-3 years after the opening of the station. On this basis the lead-in times and build-out rates are considered realistic, although this should be kept under review should the East West Rail proposals not transpire as envisaged.

10.33 The Councils' Preferred Option build-out rates at Cambourne Additional are assumed to ramp up to 300dpa in line with our assumptions, however it should be noted that this site is in close proximity to the committed Cambourne West site which in turn has had a reduced build-out rate applied due to proximity to Bourn Airfield. Cambourne West is due to be completed in 2037/38 which is when the peak of Cambourne Additional is projected to be reached, so the two trajectories complement each other in that regard – as one phases in the other phases out.

10.34 East-West Rail should be operational from 2030 onwards which will increase demand for housing in this location with good accessibility to employment and services in Cambridge, Milton Keynes and Bedford; and by this point Cambourne will be well-established as a new town and will begin to be a market in its own right (rather than 'overspill' for Cambridge). Combining the trajectories from Bourn Airfield, Cambourne West and Cambourne Additional the peak delivery is set to be 550 dwellings in 2036/37 from three strategic sites along the A428 / East West Rail corridor.

Smaller allocations in Cambridge and at villages

Cambridge

10.35 The Councils are proposing one new smaller allocation in Cambridge at the garages between 20 St. Matthews Street and Blue Moon Public House. The Councils have assumed that this site will deliver approximately 12 dwellings, and their delivery assumptions are: that a full planning application will be submitted immediately after the adoption of the new Local Plan, that build out rates will be based on our assumptions for a full planning application in a central site location, that the lead-in time will be based on our assumption of three years from submission of the application to first completions, and that all the dwellings will be completed in a year. We consider that this is realistic.

Southern Cluster villages

10.36 The Councils are proposing two new smaller allocations in the rural southern cluster area at:

- Land between Hinton Way and Mingle Lane, Great Shelford (maximum capacity of 100 dwellings)
- Land at Maarnford Farm, Hunts Road, Duxford (approximately 60 dwellings)

10.37 The Councils delivery assumptions for land between Hinton Way and Mingle Lane, Great Shelford are: that an outline planning application will be submitted immediately after the adoption of the new Local Plan, that build out rates will be based on our assumptions for an outline planning application in a rural connected location, that the lead-in time will be based on our assumption of four years from submission of the application to first completions, and that build out rates will be based on our assumption of 40 dwellings a year.

10.38 The Councils delivery assumptions for Maarnford Farm, Duxford are: that an outline planning application will be submitted immediately after the adoption of the new Local Plan, that build out rates will be based on our assumptions for an outline planning application in a rural minor/group location, that the lead-in time will be based on our assumption of four years from submission of the application to first completions, and that build out rates will be based on our assumption of 40 dwellings a year.

10.39 We consider that the anticipated delivery timetable for each of these sites is realistic.

Rest of Rural Area villages

10.40 The Councils are proposing four new smaller allocations in the rest of the rural area at:

- The Moor, Moor Lane, Melbourn (approximately 20 dwellings)
- Land at Highfields (phase 2), Caldecote (approximately 64 dwellings)
- Land at Mansel Farm, Station Road, Oakington (approximately 20 dwellings)
- Land to the west of Cambridge Road, Melbourn (approximately 120 dwellings)

10.41 The Councils delivery assumptions for The Moor, Melbourn are: that a full planning application will be submitted immediately after the adoption of the new Local Plan, that build out rates will be based on our assumptions for a full planning application in a rural minor/group location, that the lead-in time will be based on our assumption of three years from submission of the application to first completions, and that build out rates will be based on our assumption of 40 dwellings a year.

10.42 The Councils delivery assumptions for Land at Highfields (phase 2), Caldecote are: that a planning application for this site was submitted in May 2021, that build out rates will be based on our assumptions for a full planning application in a rural minor/group location, that the lead-in time will be based on our assumption of three years from submission of the application to first completions, and that build out rates will be based on our assumption of 40 dwellings a year.

10.43 The Councils delivery assumptions for Mansel Farm, Oakington are: that a full planning application will be submitted immediately after the adoption of the new Local Plan, that build out rates will be based on our assumptions for a full planning application in a rural minor/group location, that the lead-in time will be based on our assumption of three years from submission of the application to first completions, and that build out rates will be based on our assumption of 40 dwellings a year.

10.44 The Councils delivery assumptions for west of Cambridge Road, Melbourn are: that an outline planning application will be submitted immediately after the adoption of the new Local Plan, that build out rates will be based on our assumptions for an outline planning application in a rural minor/group location, that the lead-in time will be based on our assumption of four years from submission of the application to first completions, and that build out rates will be based on our assumption of 40 dwellings a year.

10.45 We consider that the anticipated delivery timetable for each of these sites is realistic.

Deliverability

10.46 The following section discusses the overall ability of the preferred options trajectory to deliver against the housing requirement over the plan period, over the first five-years and in terms of the Housing Delivery Test.

Trajectory over the plan period

10.47 The performance of the housing trajectory relative to the medium plus housing requirement is shown below in **Figure 4**. This shows that using the figures in the housing trajectory the supply is due to exceed the housing requirement every year apart from 2020/21 (which was affected by COVID-19 and is five years before anticipated plan adoption).

10.48 Given the anticipated high level of completions in the period 2021/22-2024/25 prior to plan adoption the new plan period is not expected to start with a shortfall against the requirement, and therefore a stepped annual housing requirement is not necessary.

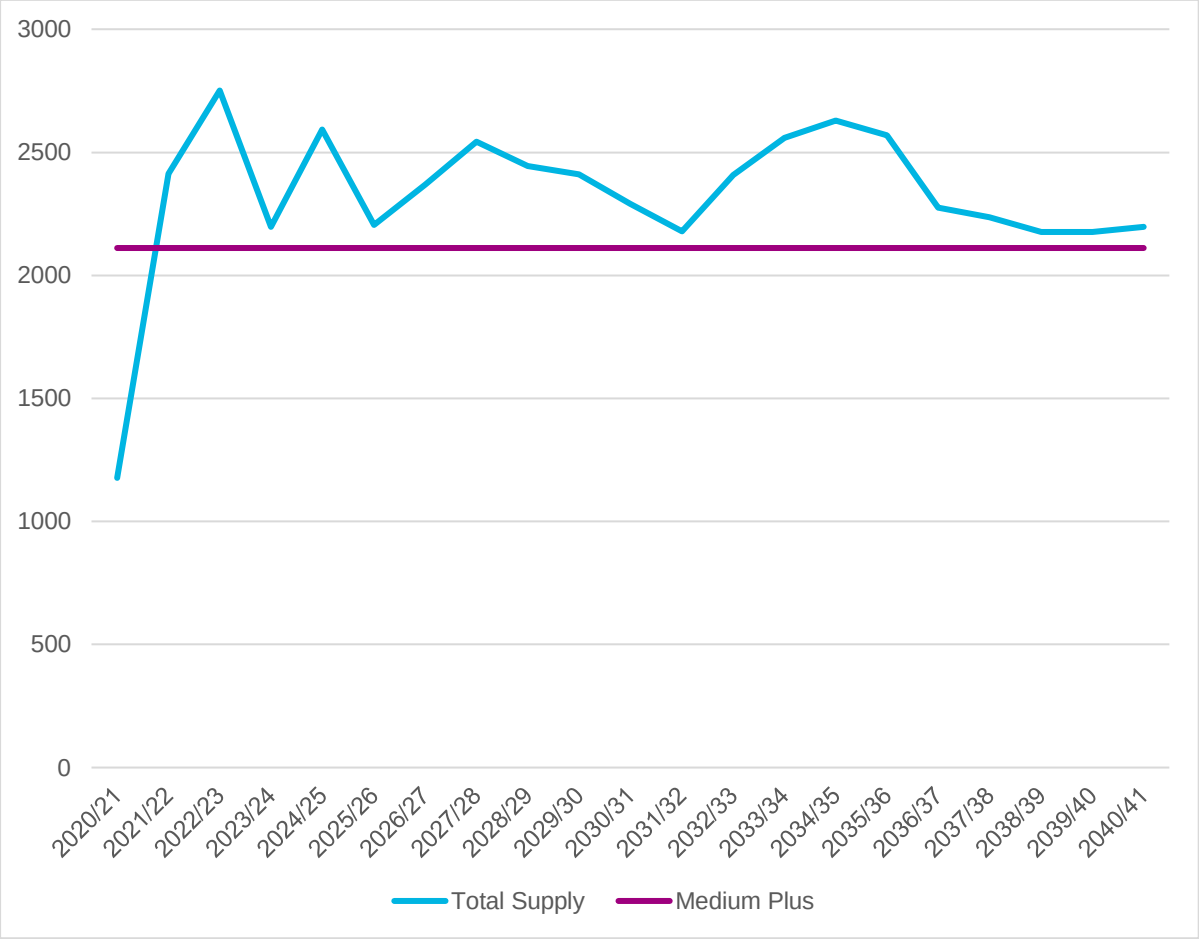


Figure 4: Preferred Option housing trajectory against the Medium Plus housing requirement

10.49 **Figure 5** shows the GCSP breakdown of the supply according to the source. As can be seen the existing housing trajectory forms the bulk of the housing delivery over the plan period, with new site allocations taking on greater importance in the trajectory as time progresses. The beginning of the plan period is largely 'fixed' due to the impact of lead-in times on new allocations. The Preferred Options 'hybrid' approach of combining smaller allocations in Cambridge and at the villages that deliver in the middle of the plan period, alongside the longer-term delivery that comes from strategic sites with longer lead-in times, creates a fairly smooth trajectory.

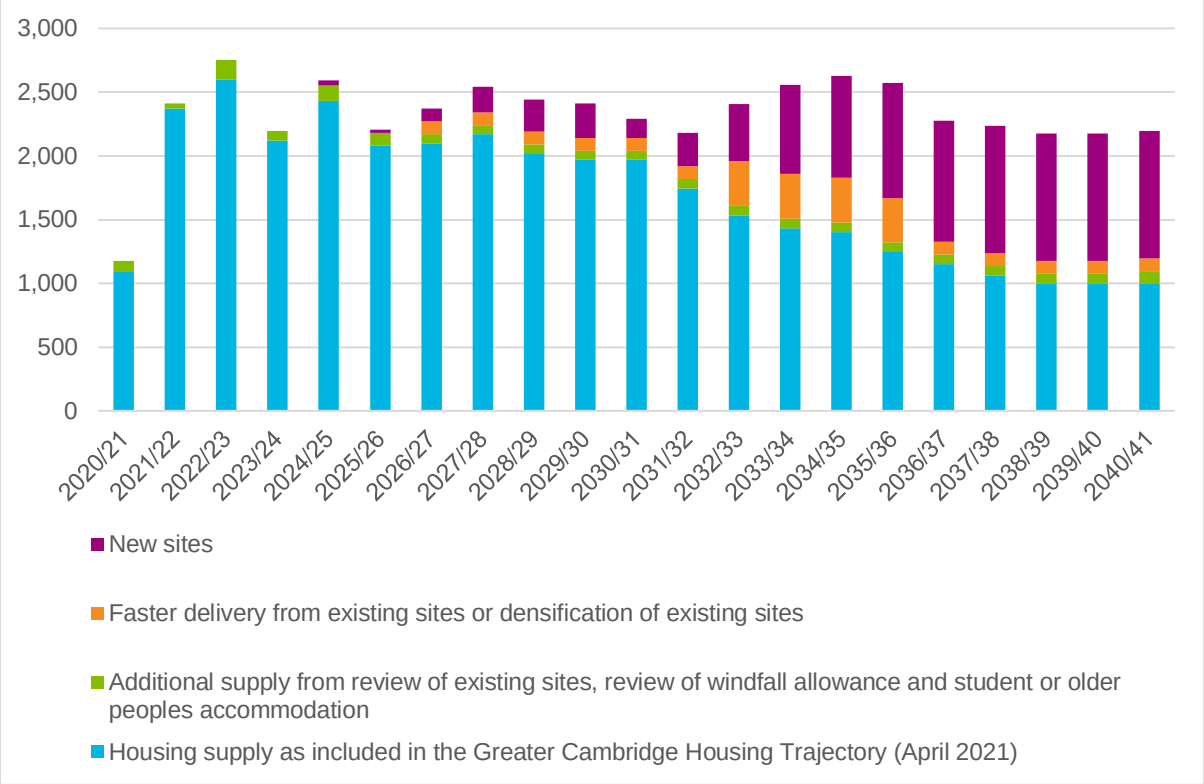


Figure 5: GCSP breakdown of the housing trajectory by site source

10.50 Overall the planned supply is anticipated to deliver 48,794 dwellings against a requirement of 44,400 dwellings, an over-allocation of around 10%. This over-allocation provides a healthy buffer should one or more of the strategic sites not progress as envisaged in the trajectory, and as a result the Councils should still be able to maintain delivery against the housing requirement. The over-allocation provides flexibility and resilience to deal with unforeseen circumstances that may arise during the plan period and should assist with being able to resist speculative planning applications not in accordance with the plan strategy.

Housing Delivery Test

10.51 The preferred option medium plus housing requirement exceeds the local housing need figure (calculated using the standard methodology) and therefore as the Housing Delivery Test is measured against the lower of these two figures, the preferred option development strategy comfortably delivers against the Housing Delivery Test. **Appendix 10** shows that the lowest result is 121% in 2022/23, and consequently there is no need to apply a 20% buffer to the five-year housing land supply. This assumes the current local housing need figure is retained which may not be the case as either affordability or household projections (the two inputs into the standard method for calculating local housing need) will be updated throughout the plan period.

Five-year housing land supply

10.52 We have anticipated that a 10% buffer will be applied to the five year housing land supply at plan adoption, on the basis that the Councils will wish to

demonstrate their five year supply through a recently adopted plan. We have done this rather than applying the minimum 5% buffer or higher 20% buffer applied where there is under-delivery based on the Housing Delivery Test. On this basis, we calculate the five-year housing land supply at plan adoption to be 5.15 years. The prospects of maintaining a five-year housing land supply over the plan period are good as no single year after plan adoption is forecast to result in under-delivery against the annual requirement.

10.53 The plan period is not anticipated to start with a shortfall against the requirement so there is no need for a stepped annual housing requirement to be used.

Summary

10.54 The Preferred Options housing trajectories produced by the Councils for the new proposed allocations draw upon the cautious assumptions for build-out rates and lead-in times as recommended in this report and the Councils have provided sufficient site-specific justification where the assumptions have been departed from.

10.55 The Interim Findings and the recommendations contained within this report have influenced the Councils' selection of their Preferred Option strategy and housing requirement. As such the Councils are in a strong position to pursue a plan that delivers against the preferred option housing requirement over the plan period as a whole, including a sufficient 'over-allocation buffer' to build-in flexibility and resilience into the supply. The Councils' development strategy and associated anticipated housing trajectory have the ability to deliver a five-year housing land supply at plan adoption.

10.56 The majority of the housing supply over the plan period comes from sites that are already committed, such that the new sources of supply identified in the Preferred Options do not begin to deliver completions at scale until the middle of the plan period. The strong supply from existing commitments at the start of the plan period, and the choice of the 'medium plus' housing requirement, result in a plan that begins without any shortfall. This means that there is no need for a 20% buffer to be applied to the five-year housing land supply at plan adoption, and there is no need, for housing delivery purposes, to pursue a stepped annual housing requirement.

11. Conclusions and recommendations

Housing delivery factors in Greater Cambridge

11.1 The UK construction sector relies upon migrant labour. Following the Coronavirus global pandemic and the UK's exit from the European Union there is evidence that the sector is facing a labour and skills shortage with the biggest impacts likely to affect London and the South East. The UK-born construction workforce is ageing. Combined with issues with training and apprenticeship programmes and falling birth rates, ageing means that there are structural shortages in the sector. In Greater Cambridge, the two Councils are working with the Greater Cambridge Partnership, Cambridgeshire and Peterborough Combined Authority and partners across education, training and business to deliver apprenticeships, and encourage uptake of training opportunities. There are opportunities through the new Local Plan and the Council's procurement processes to help boost construction skills and uptake of apprenticeships locally.

11.2 Technological innovations, such as MMC, can help to ameliorate some of these labour market and skills risks and generate new jobs in off-site manufacturing, whilst at the same time encouraging standardised levels of quality and durability. Adopting MMC can also lead to increased productivity in the sector, meaning that fewer people are required to build the same number of houses. MMC also offers the potential to expand the range of house/ apartment typologies and provide choice within the market.

11.3 Specialist forms of housing (such as older peoples housing and self-build) and tenures (such as private rented sector) can help to boost delivery rates by offering a wide variety of products to a wider spectrum of prospective renters and purchasers who may be seeking housing other than traditional market homes for sale or affordable housing in the form of affordable rented homes and/or shared ownership.

11.4 Build to Rent schemes are likely to be 'pre-sold' to institutional investors, reducing the risk to developers and allowing them to be built out rapidly, especially in the early phases of larger development. There are limited BTR developments at present within Greater Cambridge which suggests there is likely to be pent up demand for quality rented products. Investors are likely to favour the Cambridge location given its buoyant rental market that will provide funding certainty for rapid build out of schemes.

11.5 On larger developments the inclusion of some serviced self-build plots/custom-build alongside more conventional market homes has the potential to speed up the overall rate of sales. Councils and developers can impose timeframes for progress and the use of design codes or plot passports may help to speed up the consents and construction phases. Research suggests a typical scheme may take ~1.5-3 years (from plot purchase to final completion).

11.6 The impact on the economy and housing market of the Coronavirus global pandemic may impact on aspects of site viability, sales rates and investors' appetite. Public intervention may be required to bring sites forward in the short

term. Overall, the short-term impact on delivery rates is likely to be negative however Greater Cambridge may fair better than other locations because of its ability to offer the attributes that buyers and renters value (such as more space and choice of suburban and rural locations) and because of its economic strength in sectors that have been resilient for example technology and life sciences.

Windfall Sites

11.7 Historically the Councils have included a windfall allowance of 350dpa in Greater Cambridge but a review of the data indicates that 500dpa has been delivered in the area. It is considered that a mid-point figure of 425dpa is justified and realistic, however this could be increased by 5% to 450dpa taking into account the likely contribution of new permitted development rights. On this basis we would suggest the split should be 240-255dpa for South Cambridgeshire and 185-195dpa for Cambridge City.

11.8 The mid-point approach is considered pragmatic and reasonable for the purposes of supporting this Joint Local Plan, however we would recommend that the Councils review the windfall allowance when preparing evidence to support the successor to the Joint Local Plan so that any 'on the ground' trends for windfall development can be factored into the next plan.

Market Absorption

11.9 There are several interrelated factors that influence market absorption. For the purposes of plan making and the Local Plan's development strategy and when preparing the housing trajectory, it would be prudent to consider the proximity of nearby strategic sites and work with site promoters to understand whether competing sites (or sites reliant on the same infrastructure improvements) will reduce potential delivery rates over the plan period by applying broad areas of influence assumptions. Based on the published literature and stakeholder feedback, it would be prudent to engage with the landowners, promoters and developers of draft allocation sites to understand whether the presence of other nearby sites may reduce likely build-out rates. There is some evidence in the published literature that suggests for detached greenfield sites, the Councils might consider similarly sized sites within an 8-mile radius as in competition and for urban sites this may be within 2-mile radius. This rule of thumb should be tested through further engagement with site promoters once the Councils' preferred option development strategy and site allocations have been published in the Greater Cambridge Local Plan: First Proposals.

Strategic site assumptions – lead-in times and build out rates

11.10 Based on an analysis of strategic sites (200 dwellings and above) across the OxCam Arc, we have set out a series of recommended assumptions for strategic sites (as shown in **Table 28**). These assumptions are considered realistic and reliable for use in plan-making in the Greater Cambridge area, reflecting the strength of the market but without being overly-optimistic and avoiding applying a single average to all site sizes/types.

11.11 For strategic sites (>200 dwellings) we have recommended an 8-9 year lead-in time from allocation to first completions on-site where some form of supplementary guidance is required such as a masterplan, design guide/code or Supplementary Planning Document (SPD), however if this were to be incorporated into the Local Plan allocation then this could shorten the lead-in time by 2-3 years.

11.12 Taking the build out rate assumptions we have then factored in the proposed plan period, date of plan adoption and lead-in time assumptions in **Table 29**. When applying the delivery assumptions to sites, we do not recommend exceeding the peak year or peak outlet assumptions. For sites larger than the hypothetical examples, it is recommended that the build period is extended. **Table 30** shows example strategic site trajectories including lead-in time post adoption (assumed April 2025).

Table 28: Strategic site lead-in time and build-out rate assumptions

Site Size	Plan adoption to submission*	Submission to Approval**	Approval to first Completion	Average build-out rate	Average outlets	Peak build-out rate	Peak outlets
200-499	2 years	4	2	50	1	50	1
500-999	2 years	4	2	90	1-2	100	2
1000-1499	3 years	4	2	120	2-3	150	3
1500-1999	3 years	4	2	145	3-4	200	4
2000+ New Settlement	3 years	4	2	200-250	4-5	300	5
2000+ Urban Extension	3 years	4	2	225-275	5	350	7

*N.B. this assumes the preparation of some form of supplementary guidance such as a masterplan, design guide/code or Supplementary Planning Document (SPD) to guide strategic developments of >200 dwellings. This timeframe could be reduced where no supplementary guidance or Green Belt release is required prior to submission of an application.

** Approval is defined as a legally implementable permission for example following approval of Reserved Matters. It is assumed that strategic site promoters will typically seek outline planning approval. However, it is acknowledged that some smaller sites in the 200-499 range could be brought forward for full planning and time savings would be achievable. This should be assessed on a case by case basis (where appropriate).

Table 29: Strategic site build-out rate phasing assumptions example

Size band	Y 1	Y 2	Y 3	Y 4	Y 5	Y 6	Y 7	Y 8	Y 9	Y 10	Y 11	Y 12	Y 13	Y 14	Y 15	Y 16	Y 17	Y 18	Y 19	Y 20	Total	Average dpa	Equivalent outlets
200-499	50	50	50	50	50																250	50	1.0
500-999	50	100	100	100	100	100	50														600	86	1.7
1000-1499	50	100	150	150	150	150	150	150	100	50											1200	120	2.4
1500-1999	50	100	150	200	200	200	200	200	150	100	50										1600	145	2.9
2000+ NS	50	100	150	200	250	300	300	300	300	300	300	300	300	300	300	250	200	150	100	50	4500	225	4.5
2000+ SUE	50	150	250	350	350	350	350	250	150	50											2300	230	4.6

Source: AECOM Analysis

Table 30: Example strategic site trajectories (including lead-in time post adoption, assumed April 2025)

Size band	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	38/39	39/40	40/41	Total in plan period	Peak dwellings per year	Average dwellings per year
200-499	-	-	-	-	-	-	-	-	-	-	-	-	50	50	50	50	50	-	-	-	-	250	50	50
500-999	-	-	-	-	-	-	-	-	-	-	-	-	50	100	100	100	100	100	50	-	-	600	100	86
1000-1499	-	-	-	-	-	-	-	-	-	-	-	-	-	50	100	150	150	150	150	150	150	1050	150	131
1500-1999	-	-	-	-	-	-	-	-	-	-	-	-	-	50	100	150	200	200	200	200	200	1300	200	163
2000+ NS	-	-	-	-	-	-	-	-	-	-	-	-	-	50	100	150	200	250	300	300	300	1650	300	206
2000+ SUE	-	-	-	-	-	-	-	-	-	-	-	-	-	50	150	250	350	350	350	350	250	2100	350	263

Source: AECOM Analysis

Non-strategic site assumptions – lead-in times and build out rates

11.13 Based on an analysis of non-strategic sites (less than 200 dwellings) across Greater Cambridge (as set out in **Chapters 5** and **6**), we have set out a series of recommended assumptions for non-strategic sites (as shown in **Table 31**). These assumptions are considered realistic and reliable for use in the Greater Cambridge area, reflecting the strength of the market but without being overly-optimistic and avoiding applying a single average to all site sizes/types.

Table 31: Non-strategic site lead-in time and build-out rate assumptions, by HELAA typology

Typology	Density Low	Low-Medium	Medium-High	High	GCSP Monitoring category	Lead-in times (submission to first completion) - Full	Lead-in times (submission to first completion) - Outline	Build-out rate flats	Build-out rate houses	Notes
Central	75-225dph 75	125	175	225	Cambridge Urban Area (City) (flats)	3	5	All built in one year	N/A	Assume outline permission sought only on the largest sites (200+ dwellings)
Suburban	40-120dph 40	60	90	120	Cambridge Urban Area (City) (flats and houses mix)	3	5	75dpa houses and flats mix	75dpa houses and flats mix	Assume outline permission sought only on the largest sites (200+ dwellings)
Suburban	40-120dph 40	60	90	120	Cambridge Urban Area (City) (houses)	3	5	N/A	50dpa	Assume outline permission sought only on the largest sites (200+ dwellings)
Rural connected	30-80dph 30	40	60	80	Rural Centre (South)	3	4	All built in one year	40dpa	Assume outline if larger than 50 dwellings

Typology	Density	Low	Low-Medium	Medium-High	High	GCSP Monitoring category	Lead-in times (submission to first completion) - Full	Lead-in times (submission to first completion) - Outline	Build-out rate flats	Build-out rate houses	Notes
Rural minor/group	30-40dph	n/a	30	40	n/a	Minor Rural Centre (South)	3	4	N/A	40dpa	Assume outline if larger than 50 dwellings
Rural Infill	15dph	15	n/a	n/a	n/a	Infill Village (South)	3	-	N/A	All built out in one year (small sites only)	Applications of this size unlikely to be made in outline
Large city edge / infill (<200 dwellings)	50-150dph	50	70	100	150	Edge of Cambridge (City), Cambridge Urban Area (South)	4	6	All built in one year	40dpa	Assume outline if larger than 50 dwellings
Large city edge / infill (>200 dwellings)	50-150dph	50	70	100	150	Strategic site (for large sites 200 dwellings+),	-	-	-	-	See preceding strategic sites section.
New Settlement	40-60dph	40	50	60	n/a	Strategic site (for large sites 200 dwellings+)	-	-	-	-	See preceding strategic sites section.

11.14 As the Councils work their way through the plan-making process these strategic and non-strategic site assumptions can be refined as they are applied to individual sites, taking into account site-specific circumstances and the aspirations of individual landowners/developers. For example, where a housebuilder is promoting a site there is the potential to shorten the lead-in period as there is no need to dispose of the site to a housebuilder after outline permission is granted, and also there is the option of a hybrid application to allow some dwellings to be built more quickly as part of a first phase. Following consultation on the Greater Cambridge Local Plan: First Proposals it is recommended that the assumptions put forward in this report are reviewed in light of consultation feedback and with the benefit of additional monitoring data to assess whether the assumptions put forward remain suitable for application in future housing trajectories.

Review of commentary on growth levels and spatial scenarios

11.15 **Chapter 8** of this report updates the November 2020 Interim Report findings on the three housing requirement options and eight spatial scenarios with the new lead-in time and build-out rate assumptions and windfall allowance applied.

11.16 The revised findings do not significantly alter the main conclusions from the interim findings with regards to the three growth level options and eight spatial options. The eight spatial options at the minimum growth level option would still be capable of delivering their stated housing requirement and a five-year housing land supply at plan adoption, whilst the five-year housing land supply position at plan adoption for the eight spatial options at the medium growth level option has been improved slightly with the application of the new assumptions. To provide a sufficient buffer of sites we would still recommend that for these two growth level options the Councils include new allocations that provide short/medium/long-term 'top-up' supply alongside the existing commitments; and/or a small number of sites could be replaced with alternatives to help deliver a 'smoother' trajectory over the plan period.

11.17 Our findings still show that, when the revised assumptions in this report are applied, all of the eight spatial options at the maximum growth level option would be unachievable during the plan period and would not result in a five-year housing land supply at plan adoption. To deliver a five-year housing land supply at plan adoption, for any of the eight spatial options at the maximum growth level option, it would still require the application of a stepped annual housing requirement or the 'Liverpool method[10]' to address any shortfall in the five-year housing land supply. Based on the housing delivery assumptions set out in this report, any stepped annual housing requirement would require overall annual completions later in the plan period in excess of what is deemed to be achievable and would require levels of growth in excess of historical

[10] Whereby any shortfall since the start of the plan is added to the remainder of the plan period evenly; in contrast to the 'Sedgefield' method (advocated in the Planning Practice Guidance) which addresses the shortfall in the next five years.

annual housing completion rates. Adding new sites that would deliver later in the plan period to make up for the shortfall earlier in the plan period would still likely be unachievable given the unprecedented levels of housing completions required to meet the overall housing requirement over the plan period.

11.18 Overall in terms of the housing growth level options we still consider that there is scope to deliver higher rates of delivery in Greater Cambridge than under the Medium growth level option.

11.19 It is still the case that generally the spatial options that mix short-medium term sources of supply (smaller sites in urban areas and villages) with longer-term sources (new settlements, urban extensions and Green Belt release) are better-able to deliver across the plan period as a whole with a smoother trajectory. These sites also have different characteristics and are likely to result in variety in terms of location, size, type and tenure of housing, and also be more geographically spread to reduce competition, thus better-matching the housing supply with demand.

11.20 The housing delivery assumptions in this report still show that in order to optimise housing delivery, demonstrate a five-year housing land supply and maintain delivery across the plan period, it will be necessary to gap-fill the 'troughs' in the housing trajectory with additional sources of supply. This should be underpinned by cautious but realistic lead-in times and build-out rates, and an 'over-allocation' of land against the eventual housing requirement (we recommend at least a 10% buffer) in order to ensure that any unforeseen delays to delivering individual site allocations during the plan period, or changes to market conditions, do not result in under-delivery that would threaten the five year housing land supply or performance against the Housing Delivery Test.

Commentary on Preferred Housing Requirement, Preferred Option and Green Belt Hybrid

11.21 **Chapter 9** assesses the preferred option 'medium plus' housing requirement plus two new spatial scenarios to deliver it, the preferred option and a Green Belt hybrid. The assessment was undertaken using the same methodology as previous assessments to enable like-for-like comparisons to be made.

11.22 With regard to the preferred housing requirement option – 'medium plus' – this performs similarly to the previously assessed 'medium' requirement but slightly better in that it better-matches housing supply against jobs. Delivering against medium plus requires new allocations in the mid-latter part of the plan period as the beginning of the plan period is largely met by existing commitments, which should result in the ability to deliver a five-year housing land supply at plan adoption and pass the Housing Delivery Test. No concerns were raised in the engagement with the development industry about the ability to deliver against this requirement.

11.23 With regard to the new spatial scenarios, both are considered to be realistic and deliverable spatial options during the plan period as they bring forward a blended supply of sites that would 'top up' the baseline housing supply in the mid-latter part of the plan period to meet the medium plus requirement.

11.24 The difference between the two spatial options is approximately 2,000 dwellings at either Cambourne Additional (the preferred option) or in the Green Belt. The lead-in times are both significant (dependent on identification of the location of the new station at Cambourne and Green Belt release through the adoption of a new Local Plan) and the build-out rates are similar. The preferred option would begin to phase in additional dwellings at Cambourne as the existing Cambourne West committed site is built out, which should reduce any potential market absorption issues.

Assessment of Preferred Option Housing Trajectory

11.25 The Preferred Options housing trajectories produced by the Councils for the new proposed allocations draw upon the cautious assumptions for build-out rates and lead-in times as recommended in this report and the Councils have provided sufficient site-specific justification where the assumptions have been departed from.

11.26 The Interim Findings and the recommendations contained within this report have influenced the Councils' selection of their Preferred Option strategy and housing requirement. As such the Councils are in a strong position to pursue a plan that delivers against the preferred option housing requirement over the plan period as a whole, including a sufficient 'over-allocation buffer' to build-in flexibility and resilience into the supply. The Councils' development strategy and associated anticipated housing trajectory have the ability to deliver a five-year housing land supply at plan adoption.

11.27 The majority of the housing supply over the plan period comes from sites that are already committed, such that the new sources of supply identified in the Preferred Options do not begin to deliver completions at scale until the middle of the plan period. The strong supply from existing commitments at the start of the plan period, and the choice of the 'medium plus' housing requirement, result in a plan that begins without any shortfall. This means that there is no need for a 20% buffer to be applied to the five-year housing land supply at plan adoption, and there is no need, for housing delivery purposes, to pursue a stepped annual housing requirement.

Next steps

11.28 The Councils will be consulting on the preferred options in autumn 2021. Feedback should be sought on the housing trajectory and the assumptions contained within it, based on the recommendations in this Final Housing Delivery Study report. Feedback in particular should also be sought from the landowners, site promoters and developers for the preferred option site allocations to understand if they have any concerns with the trajectory.

11.29 Depending on the feedback received there may be a need to revise the lead-in time and delivery rate assumptions for the individual sites and to update the trajectory as the plan is progressed to the next stage, however as previously stated it is considered that the strategy contains sufficient flexibility and enough of a buffer to continue to be deliverable over the plan period should one or more sites not progress as intended.

Appendix 1 Strategic sites data

The two tables within this appendix provide publicly available information on known lead-in times and published trajectories of strategic sites (200 or more dwellings) in the OxCam Arc. Otterpool Garden Community (Folkestone and Hythe) and Welborne Garden Community (Fareham) are also included as examples of new settlements in the south east.

Table 32: Comparator Strategic Site Trajectories

Local Authority	Strategic site name	Total in trajectory	12/13	13/14	14/15	15/16	16/17	17/18	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	33/34	34/35	35/36	36/37	37/38	Peak dwellings per year	Average dwellings per year
South Cambridgeshire	Orchard Park / Arbury Camp	900	56	34	16	75	39	6	0	42	0	0	0	105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	105	69
South Cambridgeshire	Northstowe (including extension)	10000	-	-	-	-	-	13	140	278	246	232	345	395	345	187	250	250	250	250	250	250	250	250	-	-	-	-	395	246
South Cambridgeshire	Trumpington Meadows	600	-	-	-	29	2	62	123	106	72	125	58	5	41	-	-	-	-	-	-	-	-	-	-	-	-	-	125	62
South Cambridgeshire	Land North of Newmarket Road	1300	-	-	-	-	-	-	-	-	-	110	160	225	210	190	190	190	25	-	-	-	-	-	-	-	-	-	225	163
South Cambridgeshire	North of Cherry Hinton	420	-	-	-	-	-	-	-	-	-	-	-	35	68	68	68	68	68	45	-	-	-	-	-	-	-	-	68	60
South Cambridgeshire	North West Cambridge	Up to 3,000 dwellings in total in both South Cambs and City	-	-	-	-	-	-	1	37	15	21	9	20	15	0	125	125	125	125	125	125	250	32	-	-	-	-	250	72
South Cambridgeshire	North West Cambridge Huntingdon Road to Histon Road / Darwin Green 2 and 3 / NIAB Main 2 and 3	1100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	102	200	200	200	200	98	-	-	-	-	200	167
South Cambridgeshire	Cambourne (additional 950)	950	-	88	123	239	201	96	81	83	32	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	239	106
South Cambridgeshire	Bayer Cropscience	380	-	-	-	-	51	30	35	119	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	119	57
South Cambridgeshire	Fulbourn and Ida Darwin Hospitals	250	-	-	-	-	-	-	-	-	-	-	37	65	65	46	-	-	-	-	-	-	-	-	-	-	-	-	65	53

Local Authority	Strategic site name	Total in trajectory	12/13	13/14	14/15	15/16	16/17	17/18	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	33/34	34/35	35/36	36/37	37/38	Peak dwellings per year	Average dwellings per year
South Cambridgeshire	Northern Fringe East	Capacity to be set in future AAP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Cambridgeshire	Waterbeach New Town	8500	-	-	-	-	-	-	-	-	-	-	150	250	250	250	250	250	250	250	250	250	250	250	-	-	-	-	250	242
South Cambridgeshire	Bourn Airfield	3500	-	-	-	-	-	-	-	-	-	-	-	35	75	120	150	150	150	150	150	150	150	150	-	-	-	-	150	130
South Cambridgeshire	Cambourne West	2350	-	-	-	-	-	-	-	-	-	-	-	80	160	160	160	150	150	150	150	150	150	150	-	-	-	-	160	146
South Cambridgeshire	Sawston, land south of Babraham Road	260	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	55	55	55	55	15	-	-	-	-	-	-	55	43
Cambridge City	East Cambridge (Cambridge Airport) / Land North of Cherry Hinton	780	-	-	-	-	-	-	-	-	-	-	-	60	132	132	132	132	132	60	-	-	-	-	-	-	-	-	132	111
Cambridge City	Northern Fringe East	Capacity to be set in future AAP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cambridge City	Clay Farm	2250	-	16	271	393	149	467	539	109	93	90	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	539	219
Cambridge City	Bell School	347	-	-	-	-	21	122	45	50	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	122	54
Cambridge City	Glebe Farm	321	-	55	112	86	34	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	112	63
Cambridge City	North West Cambridge	Up to 3,000 dwellings in total in both South Cambs and City	-	-	-	-	-	73	352	373	7	2	0	152	34	0	231	125	125	125	125		-	-	-	-	-	-	373	123
Cambridge City	Land between Huntingdon Road and Histon Road (NIAB 1 / Darwin Green 1)	1593	-	-	-	-	-	-	-	15	100	180	200	200	200	200	200	200	98	-	-	-	-	-	-	-	-	-	200	159
Cambridge City	Trumpington Meadows	600	2	141	141	38	103	27	0	0	0	7	66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	141	48

Local Authority	Strategic site name	Total in trajectory	12/13	13/14	14/15	15/16	16/17	17/18	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	33/34	34/35	35/36	36/37	37/38	Peak dwellings per year	Average dwellings per year
Cambridge City	Land North of Worts Causeway	200	-	-	-	-	-	-	-	-	-	-	-	60	80	60	-	-	-	-	-	-	-	-	-	-	-	-	80	67
Cambridge City	Land South of Worts Causeway	230	-	-	-	-	-	-	-	-	-	-	50	50	50	50	30	-	-	-	-	-	-	-	-	-	-	-	50	46
Huntingdonshire	Alconbury Weald / RAF Alconbury / North Huntingdonshire cluster	4,725	-	-	-	-	48	227	119	199	207	209	208	208	300	300	300	300	300	300	300	300	300	300	300	-	-	-	300	249
Huntingdonshire	Edison Bell Way	342	-	-	-	-	-	-	-	-	-	42	100	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	100	86
Huntingdonshire	Bearscroft Farm, Godmanchester	799	-	-	-	-	87	114	114	114	75	100	110	55	30	-	-	-	-	-	-	-	-	-	-	-	-	-	114	89
Huntingdonshire	St Neots East Loves Farm (1300388OUT)/Wintringham Park (17/2308/OUT)	2,922	-	-	-	-	-	-	-	4	43	125	150	200	200	200	200	200	200	200	200	200	200	200	200	200	-	-	200	172
Huntingdonshire	RAF Upwood & Upwood Hill House	450	-	-	-	-	-	-	-	-	-	18	60	60	22	36	37	37	36	36	36	36	36	-	-	-	-	-	60	38
Huntingdonshire	East of Silver Street and South of A1, Buckden	270	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	50	50	50	50	50	-	-	-	-	-	50	45
Huntingdonshire	South of Gidding Road, Sawtry	295	-	-	-	-	-	-	-	-	30	50	50	50	50	50	15	-	-	-	-	-	-	-	-	-	-	-	50	42
Peterborough	Hampton (Residual sites)	1,648	-	-	-	-	-	-	-	50	80	80	80	100	150	150	150	150	150	150	150	150	58	-	-	-	-	-	150	118
Peterborough	Land at Paston Reserve	506	-	-	-	-	-	-	-	-	-	-	-	-	100	100	100	100	50	56	-	-	-	-	-	-	-	-	100	84
Peterborough	Hampton Gardens	880	-	-	-	-	-	98	188	125	125	125	125	94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	188	126
Peterborough	Hampton Heights	350	-	-	-	-	-	-	-	20	30	40	40	40	40	40	40	30	30	-	-	-	-	-	-	-	-	-	40	35
Peterborough	Land south of Oakdale Avenue (Residual)	483	-	-	-	-	-	75	75	0	80	80	80	70	23	-	-	-	-	-	-	-	-	-	-	-	-	-	80	60
Peterborough	Fletton Quays, land east Station Road	358	-	-	-	-	-	-	229	129	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	229	179
Peterborough	Site of former of Peterborough	225	-	-	-	-	-	-	20	20	40	97	30	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	97	38

Local Authority	Strategic site name	Total in trajectory	12/13	13/14	14/15	15/16	16/17	17/18	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	33/34	34/35	35/36	36/37	37/38	Peak dwellings per year	Average dwellings per year
	District Hospital (residual)																													
Peterborough	Land east of Alwalton Hill (gateway Peterborough)	610	-	-	-	-	-	-	-	-	-	-	-	-	80	80	80	80	80	80	80	50	-	-	-	-	-	-	80	76
Peterborough	East of England Show Ground	650	-	-	-	-	-	-	-	-	-	-	-	50	125	125	125	125	100	-	-	-	-	-	-	-	-	-	125	108
Peterborough	Norwood	2,000	-	-	-	-	-	-	-	-	-	50	50	100	150	200	200	200	200	200	200	150	150	100	50	-	-	-	200	143
Peterborough	Former Freemasons Site, Ivatt Way	460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	50	50	70	90	70	80	-	-	-	90	66
Peterborough	Fengate South	350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	50	50	50	50	50	50	-	-	-	50	50
Peterborough	Hampton Centre	200	-	-	-	-	-	-	-	-	-	-	-	50	50	50	50	-	-	-	-	-	-	-	-	-	-	-	50	50
Peterborough	Orton Centre	250	-	-	-	-	-	-	-	-	-	-	-	-	50	50	50	50	50	-	-	-	-	-	-	-	-	-	50	50
Peterborough	Part of Tanholt Farm, Eye	200	-	-	-	-	-	-	-	-	-	-	-	50	50	50	50	-	-	-	-	-	-	-	-	-	-	-	50	50
Peterborough	North Westgate Opportunity Area	200	-	-	-	-	-	-	-	-	-	-	-	-	50	50	50	50	-	-	-	-	-	-	-	-	-	-	50	50
Peterborough	Station West Opportunity Area	200	-	-	-	-	-	-	-	-	-	-	-	-	50	50	100	-	-	-	-	-	-	-	-	-	-	-	100	67
Peterborough	Station East Opportunity Area	400	-	-	-	-	-	-	-	-	-	-	-	-	100	100	100	100	-	-	-	-	-	-	-	-	-	-	100	100
Peterborough	Riverside South	200	-	-	-	-	-	-	-	-	-	-	-	-	50	50	50	50	-	-	-	-	-	-	-	-	-	-	50	50
East Cambridgeshire	Land at High Flyer Farm North of Kings Avenue Ely Cambridgeshire	800	-	-	-	-	-	-	-	-	35	50	100	115	50	50	50	50	50	50	50	50	50	50	-	-	-	-	115	57
East Cambridgeshire	North Ely Urban Extension	2,200	-	-	-	-	-	-	37	50	50	80	62	50	145	145	150	150	150	150	155	155	155	155	155	131	75	-	155	116
East Cambridgeshire	Land at Newmarket Road Burwell	350	-	-	-	-	-	-	-	-	-	-	20	60	60	60	60	60	30	-	-	-	-	-	-	-	-	-	60	50
East Cambridgeshire	West of Woodfen Road	250	-	-	-	-	-	-	-	-	10	50	50	50	50	40	-	-	-	-	-	-	-	-	-	-	-	-	50	42
East Cambridgeshire	Land Parcel North of Grange Lane	680	-	-	-	-	-	-	-	-	-	-	35	70	70	70	70	70	70	70	70	35	35	15	-	-	-	-	70	57

Local Authority	Strategic site name	Total in trajectory	12/13	13/14	14/15	15/16	16/17	17/18	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	33/34	34/35	35/36	36/37	37/38	Peak dwellings per year	Average dwellings per year
	Littleport Cambridgeshire																													
East Cambridgeshire	Land off Brook Street	400	-	-	-	-	-	-	-	-	-	-	-	50	50	50	50	50	50	50	50	-	-	-	-	-	-	-	50	50
East Cambridgeshire	Eastern Gateway area	600	-	-	-	-	-	-	-	-	30	50	50	50	50	50	50	50	50	50	50	50	20	-	-	-	-	-	50	46
Milton Keynes	Eastern Expansion Area (Brooklands)	1,777	-	-	-	-	239	242	187	301	254	210	147	85	112	-	-	-	-	-	-	-	-	-	-	-	-	-	301	197
Milton Keynes	Western expansion area (Area 10 and 11)	4,997	-	-	-	-	289	537	585	504	316	246	246	432	520	562	320	220	220	-	-	-	-	-	-	-	-	-	585	384
Milton Keynes	Strategic Land Allocation	2,903					-	-	3	191	301	365	424	373	305	220	220	220	145	136	-	-	-	-	-	-	-	-	424	242
Milton Keynes	South East Milton Keynes	3,000	-	-	-	-	-	-	-	-	-	-	-	-	-	200	450	500	500	450	450	450	-	-	-	-	-	-	500	429
Milton Keynes	Tattenhoe Park (residual)	1,015					-	-	-	-	-	90	97	83	183	241	191	130	-	-	-	-	-	-	-	-	-	-	241	145
Milton Keynes	Campbell Park	1,500	-	-	-	-	-	-	-	-	-	-	-	150	150	200	200	200	200	150	150	100	-	-	-	-	-	-	200	167
Milton Keynes	East of M1	1,680	-	-	-	-	-	-	-	-	-	-	-	-	-	295	295	295	295	205	295	-	-	-	-	-	-	-	295	280
Milton Keynes	Tickford Fields	930	-	-	-	-	-	-	-	-	-	-	50	100	100	100	100	100	100	100	100	80	-	-	-	-	-	-	100	93
Bedford	Eastcotts (western, eastern and south eastern parcels)	700	-	-	-	-	-	-	-	15	60	113	80	80	80	52	40	40	40	40	40	20	-	-	-	-	-	-	113	54
Bedford	Land north of Bromham Road, Biddenham	1,300	-	-	-	-	-	178	164	105	105	105	83	80	80	80	80	80	80	80	-	-	-	-	-	-	-	-	178	100
Bedford	Great Denham	464	-	-	-	-	-	-	193	131	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	193	155
Bedford	Wixams Village 2	720	-	-	-	-	-	-	-	120	150	150	150	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	150	144
Bedford	Wootton (north and south of Fields Road)	714	-	-	-	-	-	-	210	191	131	120	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	143
Bedford	Ford End Road	630	-	-	-	-	-	-	-	-	-	-	93	117	110	110	50	50	50	50	-	-	-	-	-	-	-	-	117	79
Central Bedfordshire	Land at Chase Farm & Land West/NE of High Street (East)	1,442	-	-	-	-	-	-	-	40	15	40	20	48	48	48	96	96	96	96	126	181	181	181	130	-	-	-	181	90

Local Authority	Strategic site name	Total in trajectory	12/13	13/14	14/15	15/16	16/17	17/18	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	33/34	34/35	35/36	36/37	37/38	Peak dwellings per year	Average dwellings per year
Central Bedfordshire	North of Houghton Regis	4,987	-	-	-	-	49	105	69	137	119	345	519	439	394	414	307	295	295	250	250	250	250	250	250	-	-	-	519	262
Central Bedfordshire	Land at Potton Road, Biggleswade	279	-	-	-	-	150	129	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	150	140
Central Bedfordshire	Land off Flitwick Road, Ampthill (Warren Farm)	393	-	-	-	-	-	101	145	88	59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	145	98
Central Bedfordshire	Land at Steppingley Road and Froghall Road, Flitwick	381	-	-	-	-	116	95	97	72	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	116	76
Central Bedfordshire	Land South of The Wixams (MA3)	1,200	-	-	-	-	-	-	-	-	-	-	-	-	-	25	100	150	200	200	200	150	125	50	-	-	-	-	200	133
Central Bedfordshire	Land at Moreteyne Farm, Marston Moretaine	519	-	-	-	-	54	75	150	78	36	45	45	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	150	65
Central Bedfordshire	East of Leighton Linslade	2,324	-	-	-	-	-	-	12	338	67	200	256	161	97	255	288	265	125	60	40	40	40	40	40	-	-	-	338	137
Central Bedfordshire	Wixams	1,603	-	-	-	-	-	-	68	150	73	172	168	80	100	100	107	107	107	107	107	107	50	-	-	-	-	-	172	107
Vale of White Horse	Land west of Great Western Park	769	-	-	-	-	-	-	-	-	-	-	-	77	307	385	-	-	-	-	-	-	-	-	-	-	-	-	385	256
Vale of White Horse	Grove Airfield	738	-	-	-	-	-	-	13	193	52	120	120	120	120	-	-	-	-	-	-	-	-	-	-	-	-	-	193	105
Vale of White Horse	Crab Hill, North East Wantage	840	-	-	-	-	-	-	18	109	73	120	178	166	176	-	-	-	-	-	-	-	-	-	-	-	-	-	178	120
Vale of White Horse	Monks Farm	175	-	-	-	-	-	-	-	-	-	-	25	75	75	-	-	-	-	-	-	-	-	-	-	-	-	-	75	58
Vale of White Horse	Milton Heights	231	-	-	-	-	-	-	13	43	25	30	35	40	45	-	-	-	-	-	-	-	-	-	-	-	-	-	45	33
Vale of White Horse	North of Abingdon on Thames	475	-	-	-	-	-	-	-	-	75	100	100	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	100	95
Vale of White Horse	East of Kingston Bagpuize with Southmoor	50	-	-	-	-	-	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-	-	50	50
Oxford City	Barton Park	770	-	-	-	-	-	-	-	48	66	74	47	50	50	75	50	50	50	50	50	60	50	-	-	-	-	-	75	55
Oxford City	Northern Gateway	500	-	-	-	-	-	-	-	-	-	-	-	-	16	50	100	100	100	20	20	34	40	20	-	-	-	-	100	50

Local Authority	Strategic site name	Total in trajectory	12/13	13/14	14/15	15/16	16/17	17/18	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	33/34	34/35	35/36	36/37	37/38	Peak dwellings per year	Average dwellings per year
South Oxfordshire	Land adjacent Culham Science Centre	2,100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	250	250	250	250	250	250	250	250	-	-	-	250	233
South Oxfordshire	Land at Chalgrove Airfield	2,105	-	-	-	-	-	-	-	-	-	-	-	-	-	80	130	150	240	250	220	225	205	275	330	-	-	-	330	211
South Oxfordshire	Grenoble Road	2,480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	200	300	200	336	336	336	336	336	-	-	-	336	276
South Oxfordshire	Land to the north east of Didcot	1,708	-	-	-	-	-	-	-	27	78	90	98	101	132	150	150	150	150	150	150	150	132	-	-	-	-	-	150	122
South Oxfordshire	Northfield	1,800	-	-	-	-	-	-	-	-	-	-	-	-	-	50	150	200	200	200	200	200	200	200	200	-	-	-	200	180
South Oxfordshire	Land at Berinsfield	1,700	-	-	-	-	-	-	-	-	-	-	-	-	-	100	150	200	200	200	200	200	200	150	100	-	-	-	200	170
South Oxfordshire	Land North of Bayswater Brook	1,100	-	-	-	-	-	-	-	-	-	-	-	-	-	50	150	150	150	150	150	150	150	-	-	-	-	-	150	138
South Oxfordshire	Ladygrove East, Land off A4130, Hadden Hill, Didcot	642	-	-	-	-	-	-	-	-	-	-	21	86	86	86	86	86	86	86	19	-	-	-	-	-	-	-	86	71
South Oxfordshire	Land to the west of Wallingford	555	-	-	-	-	-	-	-	-	-	48	48	48	48	48	48	48	48	48	48	48	27	-	-	-	-	-	48	46
South Oxfordshire	Wallingford Site E, Land north of A4130	502	-	-	-	-	-	-	-	-	-	-	86	86	86	86	86	72	-	-	-	-	-	-	-	-	-	-	86	84
South Oxfordshire	Land at Wheatley Campus, Oxford Brookes University	500	-	-	-	-	-	-	-	-	-	-	46	92	92	92	92	86	-	-	-	-	-	-	-	-	-	-	92	83
South Oxfordshire	Didcot Gateway South	300	-	-	-	-	-	-	-	-	-	-	-	100	100	100	-	-	-	-	-	-	-	-	-	-	-	-	100	100
South Oxfordshire	Orchard Centre Phase 2	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	100	100	50	-	-	-	-	-	-	-	-	100	75
South Oxfordshire	Vauxhall Barracks	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	100	100	50	-	-	-	-	-	-	100	75
Cherwell	Bankside Phase 1 (Longford Park)	530	-	-	-	-	-	104	150	146	98	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	150	106
Cherwell	Drayton Lodge Farm	250	-	-	-	-	-	-	-	-	50	75	100	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	63

Local Authority	Strategic site name	Total in trajectory	12/13	13/14	14/15	15/16	16/17	17/18	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	33/34	34/35	35/36	36/37	37/38	Peak dwellings per year	Average dwellings per year
Cherwell	Land adjoining and west of Warwick Road	300	-	-	-	-	-	-	40	100	100	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	75
Cherwell	Land East of Southam Road	405	-	-	-	-	-	100	100	80	80	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	81
Cherwell	Land South of Salt Way and West of Bloxham Road	350	-	-	-	-	-	-	25	75	75	75	75	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	58
Cherwell	North of Hanwell Fields	544	-	-	-	-	57	100	100	100	100	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	91
Cherwell	South of Salt Way - East	1,361	-	-	-	-	-	50	19	50	125	150	150	150	150	100	100	100	100	75	42	-	-	-	-	-	-	-	150	97
Cherwell	West of Bretch Hill	400	-	-	-	-	14	80	80	80	80	66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	67
Cherwell	Bankside Phase 2	600	-	-	-	-	-	-	-	-	50	100	100	100	100	100	50	-	-	-	-	-	-	-	-	-	-	-	100	86
Cherwell	Canalside	700	-	-	-	-	-	-	-	-	50	50	100	100	100	100	100	100	-	-	-	-	-	-	-	-	-	-	100	88
Cherwell	Gavray Drive	300	-	-	-	-	-	-	-	25	75	100	75	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	60
Cherwell	Graven Hill	2,099	-	-	-	-	-	30	100	200	200	200	200	200	200	200	200	200	169	-	-	-	-	-	-	-	-	-	200	175
Cherwell	Kingsmere, South West Bicester (Phase 1)	819	-	-	-	-	-	200	200	200	150	69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	164
Cherwell	North West Bicester Phase 2	2,405	-	-	-	-	-	-	-	50	155	220	220	220	220	220	220	220	220	220	220	-	-	-	-	-	-	-	220	200
Cherwell	South East Bicester	1,475	-	-	-	-	-	-	-	-	100	150	200	200	200	200	200	150	75	-	-	-	-	-	-	-	-	-	200	164
Cherwell	South West Bicester Phase 2	709	-	-	-	-	-	-	-	70	110	110	140	140	139	-	-	-	-	-	-	-	-	-	-	-	-	-	140	118
Cherwell	Former RAF Upper Heyford	2,021	-	-	-	-	-	130	130	150	150	150	150	150	150	150	150	150	140	140	131	-	-	-	-	-	-	-	150	144
Aylesbury Vale	Kingsbrook, Aylesbury East, Broughton Crossing	2,450	-	-	-	-	92	219	181	204	150	200	200	200	200	200	154	150	150	150	-	-	-	-	-	-	-	-	219	175
Aylesbury Vale	Land North of Aston Clinton Rd, Weston Turville	386	-	-	-	-	-	-	-	-	25	75	100	100	75	11	-	-	-	-	-	-	-	-	-	-	-	-	100	64
Aylesbury Vale	Land North Of A421 Tingewick Road	382	-	-	-	-	-	-	-	31	75	100	100	76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	76

Local Authority	Strategic site name	Total in trajectory	12/13	13/14	14/15	15/16	16/17	17/18	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	33/34	34/35	35/36	36/37	37/38	Peak dwellings per year	Average dwellings per year
	Buckingham Buckinghamshire																													
Aylesbury Vale	Land between Wendover Road and Aston Clinton Road	2,555	-	-	-	-	-	-	-	-	-	-	-	80	150	225	300	300	300	300	300	300	300	-	-	-	-	-	300	256
Aylesbury Vale	Land south west of Milton Keynes	1,855	-	-	-	-	-	-	-	-	-	-	-	100	200	250	250	250	250	250	250	55	-	-	-	-	-	-	250	206
Aylesbury Vale	Aylesbury Woodland	990	-	-	-	-	-	-	-	-	-	-	-	-	30	120	120	120	120	120	120	120	120	-	-	-	-	-	120	110
Aylesbury Vale	AGT2 South West Aylesbury	1,300	-	-	-	-	-	-	-	-	-	-	-	-	60	100	120	180	180	180	180	180	120	-	-	-	-	-	180	144
Aylesbury Vale	Shenley Park	1,150	-	-	-	-	-	-	-	-	-	-	-	-	50	100	160	200	200	160	160	120	-	-	-	-	-	-	200	144
Aylesbury Vale	RAF Halton	1,000	-	-	-	-	-	-	-	-	-	-	-	-	25	100	125	125	125	125	125	125	125	-	-	-	-	-	125	111
Aylesbury Vale	AGT1 South Aylesbury	875	-	-	-	-	-	-	-	-	-	-	-	-	75	100	150	150	150	130	120	-	-	-	-	-	-	-	150	125
Aylesbury Vale	AGT3 Aylesbury north of A41	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	160	160	160	45	-	-	-	-	-	-	-	160	120
Aylesbury Vale	Land off Osier Way (south of A421 and east of Gawcott Rd)	420	-	-	-	-	-	-	-	-	-	-	-	30	100	120	100	70	-	-	-	-	-	-	-	-	-	-	120	84
Aylesbury Vale	Land to east of B4033 Great Horwood Rd	315	-	-	-	-	-	-	-	-	-	-	-	55	85	80	40	40	15	-	-	-	-	-	-	-	-	-	85	53
Folkestone and Hythe	Otterpool Garden Community	650	-	-	-	-	-	-	-	-	-	-	325	325	-	-	-	-	-	-	-	-	-	-	-	-	-	-	325	325
Fareham	Welborne Garden Community	3,700	-	-	-	-	-	-	-	-	-	-	30	180	240	250	250	250	250	250	250	250	250	250	250	250	250	250	250	231

Source: Various LPA AMRs, housing trajectories and five-year housing land supply statements

Table 33: Comparator Strategic Site Lead-In Times

Local Authority	Strategic site name	Allocation reference	Date of first allocation	Date of validation	Date of outline permission	Date reserved matters approved	Date of full planning permission	Allocation to submission (months)	Submission to detailed approval (months)	Approval to first completion (months)	Total allocation to first completion (months)	Total submission to first completion (months)	Estimate date of first completion (midpoint in the year)
South Cambridgeshire	Orchard Park / Arbury Camp	HG2 Cambridge North Fringe West / SP/1 Cambridge Northern Fringe West / SS/1 Orchard Park	01/02/2004	-	-	-	Jun-05	-	-	-	-	-	-
South Cambridgeshire	Northstowe (including extension)	SS/5	01/01/2007	27/02/2012	22/04/2014	01/09/2016	-	63	55	1	119	56	01/10/2016
South Cambridgeshire	Trumpington Meadows	CSF/3	01/02/2008	18/01/2008	09/10/2009	01/08/2011	-	-	43	39	81	82	01/10/2014
South Cambridgeshire	Land North of Newmarket Road	CE/3 / SS/3	01/02/2008	18/12/2013	30/11/2016	-	-	72	-	-	154	83	01/10/2020
South Cambridgeshire	North of Cherry Hinton	SS/3	01/02/2008	29/03/2018	18/12/2020	-	-	124	-	-	179	55	01/10/2022
South Cambridgeshire	North West Cambridge	NW4	01/10/2009	22/09/2011	22/02/2013	07/12/2015	-	24	51	22	97	73	01/10/2017
South Cambridgeshire	North West Cambridge Huntingdon Road to Histon Road / Darwin Green 2 and 3 / NIAB Main 2 and 3	SP/2 / SS/2	01/01/2010	-	-	-	-	-	-	-	216	-	01/10/2027
South Cambridgeshire	Cambourne (additional 950)	SP/3	01/01/2010	16/08/2007	03/10/2011	26/07/2011	-	-	48	14	33	62	01/10/2012

Local Authority	Strategic site name	Allocation reference	Date of first allocation	Date of validation	Date of outline permission	Date reserved matters approved	Date of full planning permission	Allocation to submission (months)	Submission to detailed approval (months)	Approval to first completion (months)	Total allocation to first completion (months)	Total submission to first completion (months)	Estimate date of first completion (midpoint in the year)
South Cambridgeshire	Bayer Cropscience	SP/8 / H/2	01/01/2010	01/12/2006	12/02/2010	24/12/2012	-	-	74	34	70	108	01/10/2015
South Cambridgeshire	Fulbourn and Ida Darwin Hospitals	SP/9 / H/3	01/01/2010	28/02/2017	07/11/2019	-	-	87	-	-	143	56	01/10/2021
South Cambridgeshire	Northern Fringe East	SS/4	27/09/2018	-	-	-	-	-	-	-	-	-	-
South Cambridgeshire	Waterbeach New Town	SS/6	27/09/2018	17/02/2017	01/09/2019	01/08/2020	-	-	42	14	37	56	01/10/2021
South Cambridgeshire	Bourn Airfield	SS/7	27/09/2018	10/09/2018	-	-	-	-	-	-	49	49	01/10/2022
South Cambridgeshire	Cambourne West	SS/8	27/09/2018	22/12/2014	29/12/2017	01/06/2020	-	-	66	28	49	95	01/10/2022
South Cambridgeshire	Sawston, land south of Babraham Road	H/1c	27/09/2018	-	-	-	-	-	-	-	85	-	01/10/2025
Cambridge City	East Cambridge (Cambridge Airport) / Land North of Cherry Hinton	9.01 / R47	20/07/2006	29/03/2018	18/12/2020	-	-	142	-	-	197	55	01/10/2022
Cambridge City	Northern Fringe East	9.04 / Policy 15	20/07/2006	-	-	-	-	-	-	-	-	-	-
Cambridge City	Clay Farm	9.06 / R42a	20/07/2006	06/06/2007	11/08/2010	23/01/2013	-	11	69	0	80	69	01/02/2013
Cambridge City	Bell School	9.12 / R42d	20/07/2006	31/08/2006	14/12/2010	23/04/2014	-	1	93	18	112	111	01/10/2015
Cambridge City	Glebe Farm	9.13 / R42c	20/07/2006	17/12/2009	-	-	11-Aug-10	42	8	26	76	34	01/10/2012
Cambridge City	North West Cambridge	9.07 / 9.11	20/07/2006	20/09/2011	22/02/2013	27/02/2014	-	63	30	32	124	61	01/10/2016
Cambridge City	Land between Huntingdon Road and Histon Road (NIAB	9/8 / R43	20/07/2006	19/12/2006	20/02/2015	23/05/2016	-	5	115	29	149	143	01/10/2018

Local Authority	Strategic site name	Allocation reference	Date of first allocation	Date of validation	Date of outline permission	Date reserved matters approved	Date of full planning permission	Allocation to submission (months)	Submission to detailed approval (months)	Approval to first completion (months)	Total allocation to first completion (months)	Total submission to first completion (months)	Estimate date of first completion (midpoint in the year)
	1 / Darwin Green 1)												
Cambridge City	Trumpington Meadows	9/5 / R42b	20/07/2006	21/12/2007	09/10/2009	29/07/2011	-	17	44	2	63	46	01/10/2011
Cambridge City	Land North of Worts Causeway	GB1	18/10/2018	30/03/2020	-	-	-	18	-	-	48	31	01/10/2022
Cambridge City	Land South of Worts Causeway	GB2	18/10/2018	21/08/2019	-	-	-	10	-	-	36	26	01/10/2021
Huntingdonshire	Alconbury Weald / RAF Alconbury / North Huntingdonshire cluster	SEL1 and HU1	23-Sep-09	15-Aug-12	01-Oct-14	18-Dec-15	-	35	41	10	86	50	01/10/2016
Huntingdonshire	Edison Bell Way	HU5 Site allocation	24-Sep-09	06-Apr-17	-	-	16-Oct-18	92	19	36	146	55	01/10/2021
Huntingdonshire	Bearscroft Farm, Godmanchester	HU16 Site allocation	25-Sep-09	23-Apr-12	06-Mar-14	09-Jun-16	-	31	50	-	-	-	-
Huntingdonshire	St Neots East Loves Farm (1300388OUT)/Wintringham Park (17/2308/OUT)	SEL.2 Site allocation	25-Sep-09	20-Mar-13	-	-	06-Nov-18	42	69	11	122	80	01/10/2019
Huntingdonshire	RAF Upwood & Upwood Hill House	RA8 Site allocation	25-Sep-09	02-Aug-12	07-Jun-17	Sep-20	-	35	98	13	146	112	01/10/2021
Huntingdonshire	East of Silver Street and South of	BU1 Site allocation	15-May-19	24-Dec-18	-	-	-	-	-	-	102	107	01/10/2027

Local Authority	Strategic site name	Allocation reference	Date of first allocation	Date of validation	Date of outline permission	Date reserved matters approved	Date of full planning permission	Allocation to submission (months)	Submission to detailed approval (months)	Approval to first completion (months)	Total allocation to first completion (months)	Total submission to first completion (months)	Estimate date of first completion (midpoint in the year)
	A1, Buckden												
Huntingdonshire	South of Gidding Road, Sawtry	SY2 Site allocation	25-Sep-09	23-Jan-17	01-May-18	05-Nov-19	-	89	34	11	134	45	01/10/2020
Peterborough	Hampton (Residual sites)	Reference: residual 4000	-	-	09-Mar-93	-	-	-	-	-	-	-	01/10/2019
Peterborough	Land at Paston Reserve	Reference: 91/00001/OUT	-	05-Sep-91	13-Feb-06	-	-	-	-	-	-	-	-
Peterborough	Hampton Gardens	Reference: 16/00722/REM	-	16-Apr-16	16-Sep-16	-	-	-	-	-	-	-	-
Peterborough	Hampton Heights	Allocation LP35.1. Outline Reference: 14/02165/OUT. Reserved Matters reference 18/01736/REM	23-Feb-11	12-Dec-14	19-Jun-15	15-Feb-19	-	46	51	8	105	58	01/10/2019
Peterborough	Land south of Oakdale Avenue (Residual)	Reference: 03/00842/OUT	-	24-Jun-03	17-Aug-07	05-Dec-14	-	-	139	-	-	-	-
Peterborough	Fletton Quays, land east Station Road	Reference: 15/01589/OUT	23-Feb-11	25-Sep-15	24-Dec-15	27-Oct-16	-	56	13	23	93	37	01/10/2018
Peterborough	Site of former of Peterborough District Hospital (residual)	Reference: 14/00536/OUT	23-Feb-11	02-Apr-14	31-Oct-14	04-Dec-15	-	38	20	34	93	55	01/10/2018

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Peterborough	Land east of Alwalton Hill (gateway Peterborough)	LP35.4	23-Feb-11	28-Aug-15	10-Oct-16	-	-	55	-	-	166	111	01/10/2024
Peterborough	East of England Show Ground	LP35.7	24-Jun-19	-	-	-	-	-	-	-	52	-	01/10/2023
Peterborough	Norwood	LP35.7	24-Jun-19	18-Feb-19	-	-	-	-	-	-	28	32	01/10/2021
Peterborough	Former Freemasons Site, Ivatt Way	LP37.25	24-Jun-19	-	-	-	-	-	-	-	113	-	01/10/2028
Peterborough	Fengate South	LP37.27	24-Jun-19	-	-	-	-	-	-	-	113	-	01/10/2028
Peterborough	Hampton Centre	LP37.30	24-Jun-19	-	-	-	-	-	-	-	52	-	01/10/2023
Peterborough	Orton Centre	LP37.31	24-Jun-19	-	-	-	-	-	-	-	64	-	01/10/2024
Peterborough	Part of Tanholt Farm, Eye	LP39.7	24-Jun-19	03-Jun-19	-	-	-	-	-	-	52	53	01/10/2023
Peterborough	North Westgate Opportunity Area	LP47.3	24-Jun-19	-	-	-	-	-	-	-	64	-	01/10/2024
Peterborough	Station West Opportunity Area	LP48.6	24-Jun-19	-	-	-	-	-	-	-	64	-	01/10/2024
Peterborough	Station East Opportunity Area	LP48.7	24-Jun-19	-	-	-	-	-	-	-	64	-	01/10/2024
Peterborough	Riverside South	LP50.1	24-Jun-19	-	-	-	-	-	-	-	64	-	01/10/2024
East Cambridgeshire	Land at High Flyer Farm North of Kings Avenue Ely	Local plan reference: ELY1. Site reference: 100029	21-Apr-15	21-Nov-11	18-Jun-15	19-Feb-18	-	-	76	32	66	108	01/10/2020

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	Cambridgeshire												
East Cambridgeshire	North Ely Urban Extension	Local plan reference: ELY1. Site reference: 100030	21-Apr-15	13/09/2013	20-Jun-16	07-Sep-17	-	-	49	13	42	61	01/10/2018
East Cambridgeshire	Land at Newmarket Road Burwell	Local plan reference: BUR1. Site reference: 50027	21-Apr-15	02-Oct-15	31-Oct-19	-	-	5	-	-	91	85	01/10/2022
East Cambridgeshire	West of Woodfen Road	Local plan reference: LIT1. Site reference: 180029	21-Apr-15	01-Oct-20	-	-	-	66	-	-	-	-	-
East Cambridgeshire	Land Parcel North of Grange Lane Littleport Cambridgeshire	Local plan reference: LIT2. Site reference: 180030	21-Apr-15	27-Apr-17	31-Jan-20	-	-	25	-	-	91	66	01/10/2022
East Cambridgeshire	Land off Brook Street	Local plan reference: SOH1. Site reference: 230056	21-Apr-15	-	-	-	-	-	-	-	103	-	01/10/2023
East Cambridgeshire	Eastern Gateway area	Local plan reference: SOH3. Site reference: 230058	21-Apr-15	Nov-19	-	-	-	55	-	-	66	11	01/10/2020
Milton Keynes	Eastern Expansion Area (Brooklands)	Local Plan 2005	01-Dec-05	09-Dec-05	07-Aug-07	-	-	0	-	-	-	-	-

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Milton Keynes	Western expansion area (Area 10 and 11)	Local Plan 2005	01-Dec-05	28-Feb-05	05-Oct-07	-	-	-	-	-	120	129	01/10/2015
Milton Keynes	Strategic Land Allocation	Core Strategy 2013	Jul-13	08-Nov-13	02-Apr-15	04-Nov-15	-	4	24	35	64	60	01/10/2018
Milton Keynes	South East Milton Keynes	Plan:MK 2019	20-Mar-19	-	-	-	-	-	-	-	80	-	01/10/2025
Milton Keynes	Tattenhoe Park (residual)	Local Plan 2005	01-Dec-05	30/05/2006	22/08/2007	05/11/2012	-	6	78	108	193	187	01/10/2021
Milton Keynes	Campbell Park	-	20-Mar-19	-	-	-	-	-	-	-	55	-	01/10/2023
Milton Keynes	East of M1	Plan:MK 2019	20-Mar-19	-	-	-	-	-	-	-	80	-	01/10/2025
Milton Keynes	Tickford Fields	Neighbourhood Plan allocation	20-Mar-19	20/01/2020	-	-	-	10	-	-	43	33	01/10/2022
Bedford	Eastcotts (western, eastern and south eastern parcels)	-	-	23/05/2005	11/02/2010	08/07/2019		-	172	3	-	175	01/10/2019
Bedford	Land north of Bromham Road, Biddenham	-	-	09/01/2002	27/03/2014	06/11/2015	-	-	168	23	-	191	01/10/2017
Bedford	Great Denham	-	-	28/03/2002	20/03/2007	30/04/2008	-	-	74	-	-	-	-
Bedford	Wixams Village 2	-	-	17/11/1999	02/06/2006	17/01/2008	-	-	99	143	-	242	01/10/2019
Bedford	Wootton (north and south of Fields Road)	-	-	14/07/2011	-	-	16/02/2012	-	7	-	-	-	-
Bedford	Ford End Road	P12	15-Jan-20	-	-	-	-	-	-	-	33	-	01/10/2022

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Central Bedfordshire	Land at Chase Farm & Land West/NE of High Street (East)	HT005 / MA8	Apr-11	06-Mar-17	25-May-18	-	-	72	-	-	104	31	01/10/2019
Central Bedfordshire	North of Houghton Regis	HT057	Apr-11	21-Dec-12	02-Jun-14	-	13-Mar-15	21	27	19	67	46	01/10/2016
Central Bedfordshire	Land at Potton Road, Biggleswade	-	Apr-11	22-May-14	-	-	02-Apr-15	38	11	6	55	17	01/10/2015
Central Bedfordshire	Land off Flitwick Road, Ampthill (Warren Farm)	HA4	Apr-11	24-Apr-12	30-Oct-13	03-Jun-16	-	13	50	16	79	66	01/10/2017
Central Bedfordshire	Land at Steppingley Road and Froghall Road, Flitwick	MA2	Apr-11	27-Feb-13	17-Jul-13	09-Feb-15	-	23	24	8	55	32	10/10/2015
Central Bedfordshire	Land South of The Wixams (MA3)	MA3	-	-	-	-	-	-	-	-	-	-	01/10/2025
Central Bedfordshire	Land at Moreteyne Farm, Marston Moretaine	-	Apr-11	28-Dec-11	19-Sep-13	27-Feb-15	-	9	39	7	55	46	01/10/2015
Central Bedfordshire	East of Leighton Linslade	-	Apr-11	01-Jun-11	28-Aug-15	13-Jun-18	-	2	86	4	91	89	01/10/2018
Central Bedfordshire	Wixams	HT116	Apr-11	17-Nov-99	02-Jun-06	-	-	-	-	-	91	230	01/10/2018

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Vale of White Horse	Land west of Great Western Park	41	14/12/2016	20-Jan-15	-	-	-	-	-	-	83	106	01/10/2023
Vale of White Horse	Grove Airfield	1240	14/12/2016	27/02/2012	17/07/2017	17/04/2018	-	-	75	6	22	80	01/10/2018
Vale of White Horse	Crab Hill, North East Wantage	1244	14/12/2016	01/08/2013	13/07/2015	12/11/2017	-	-	52	11	22	63	01/10/2018
Vale of White Horse	Monks Farm	15	14/12/2016	02/04/2015	13/08/2015	21/01/2016	-	-	10	82	71	91	01/10/2022
Vale of White Horse	Milton Heights	9	14/12/2016	16/11/2016	-	-	26/10/2017	-	11	11	22	23	01/10/2018
Vale of White Horse	North of Abingdon on Thames	1255	14/12/2016	09/01/2017	08/11/2017	Jul-20	-	1	42	3	46	45	01/10/2020
Vale of White Horse	East of Kingston Bagpuize with Southmoor	1270	Oct-19	-	-	-	-	-	-	-	61	-	01/10/2024
Oxford City	Barton Park	HELAA Ref. 2	27/12/2012	31/05/2013	18/10/2013	10/03/2016	-	5	34	43	82	77	01/10/2019
Oxford City	Northern Gateway	HELAA Ref.1	20/07/2015	31/07/2018	-	-	-	37	-	-	112	75	01/10/2024
South Oxfordshire	Land adjacent Culham Science Centre	-	10/12/2020	-	-	-	-	-	-	-	71	-	01/10/2026
South Oxfordshire	Land at Chalgrove Airfield	-	10/12/2020	-	-	-	-	-	-	-	59	-	01/10/2025
South Oxfordshire	Grenoble Road	-	10/12/2020	-	-	-	-	-	-	-	71	-	01/10/2026
South Oxfordshire	Land to the north east of Didcot	1009	01/12/2012	24/08/2015	30/06/2017	23/11/2018	-	33	40	10	83	50	01/10/2019
South Oxfordshire	Northfield	-	10/12/2020	-	-	-	-	-	-	-	59	-	01/10/2025

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South Oxfordshire	Land at Berinsfield	-	10/12/2020	-	-	-	-	-	-	-	59	-	01/10/2025
South Oxfordshire	Land North of Bayswater Brook	-	10/12/2020	-	-	-	-	-	-	-	59	-	01/10/2025
South Oxfordshire	Ladygrove East, Land off A4130, Hadden Hill, Didcot	-	Dec-12	05/03/2019	-	-	-	76	-	-	119	44	01/10/2022
South Oxfordshire	Land to the west of Wallingford	-	Dec-12	04/08/2014	04/10/2017	08/05/2019	-	20	58	29	107	87	01/10/2021
South Oxfordshire	Wallingford Site E, Land north of A4130	-	-	03/01/2017	09/08/2019	-	-	-	-	-	-	70	01/10/2022
South Oxfordshire	Land at Wheatley Campus, Oxford Brookes University	STRAT14	10/12/2020	19/01/2018	Apr-20	-	-	-	-	-	22	57	01/10/2022
South Oxfordshire	Didcot Gateway South	H2	10/12/2020	-	-	-	-	-	-	-	34	-	01/10/2023
South Oxfordshire	Orchard Centre Phase 2	-	10/12/2020	-	-	-	-	-	-	-	71	-	01/10/2026
South Oxfordshire	Vauxhall Barracks	-	10/12/2020	-	-	-	-	-	-	-	95	-	01/10/2028
Cherwell	Bankside Phase 1 (Longford Park)	Banbury 4	-	-	-	-	-	-	-	-	-	-	-
Cherwell	Drayton Lodge Farm	-	20/07/2015	30/10/2018	17/01/2020	-	-	40	-	-	63	23	01/10/2020
Cherwell	Land adjoining and west of	-	-	03/05/2013	03/03/2014	07/03/2017	-	-	47	19	-	66	01/10/2018

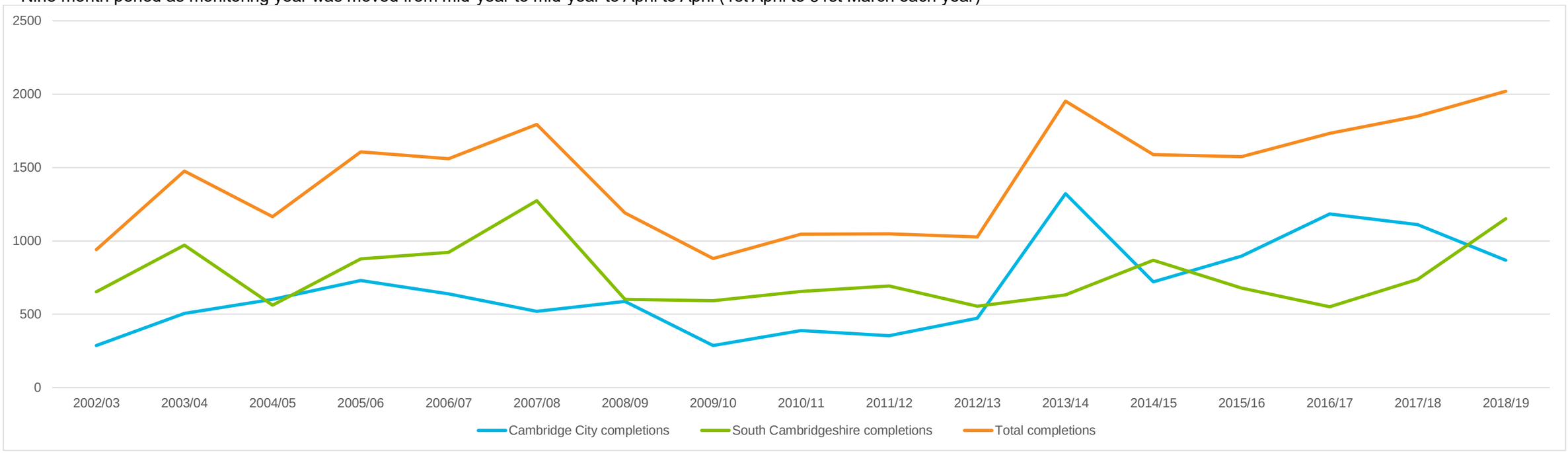
Local Authority	Strategic site name	Allocation reference	Date of first allocation	Date of validation	Date of outline permission	Date reserved matters approved	Date of full planning permission	Allocation to submission (months)	Submission to detailed approval (months)	Approval to first completion (months)	Total allocation to first completion (months)	Total submission to first completion (months)	Estimate date of first completion (midpoint in the year)
	Warwick Road												
Cherwell	Land East of Southam Road	Banbury 2	20/07/2015	06/02/2013	18/12/2013	17/07/2015	-	-	30	15	15	44	01/10/2016
Cherwell	Land South of Salt Way and West of Bloxham Road	Banbury 16	20/07/2015	21/07/2014	13/11/2015	02/10/2017	-	-	39	12	39	51	01/10/2018
Cherwell	North of Hanwell Fields	Banbury 5	20/07/2015	20/12/2012	02/09/2014	13/11/2015	-	-	35	-	-	-	-
Cherwell	South of Salt Way - East	Banbury 17	20/07/2015	23/01/2012	23/09/2013	28/11/2014	-	-	35	-	-	-	-
Cherwell	West of Bretch Hill	Banbury 3	-	27/03/2013	09/03/2016	25/08/2016	-	-	42	-	-	31	01/10/2015
Cherwell	Bankside Phase 2	Banbury 4	20/07/2015	-	-	-	-	-	-	-	63	-	01/10/2020
Cherwell	Canalside	Banbury 1	20/07/2015	-	-	-	-	-	-	-	63	-	01/10/2020
Cherwell	Gavray Drive	Bicester 13	20/07/2015	-	-	-	-	-	-	-	51	-	01/10/2019
Cherwell	Graven Hill	Bicester 2	20/07/2015	03/10/2011	08/08/2014	19/12/2016	-	-	63	10	27	73	01/10/2017
Cherwell	Kingsmere, South West Bicester (Phase 1)	-	-	-	-	-		-	-	-	-	-	-
Cherwell	North West Bicester Phase 2	-	20/07/2015	01/03/2017	-	-	07/08/2017	20	5	26	51	31	01/10/2019
Cherwell	South East Bicester	Bicester 12	20/07/2015	28/06/2016	-	-	-	11	-	-	63	52	01/10/2020
Cherwell	South West Bicester Phase 2	Bicester 3	20/07/2015	05/06/2013	30/05/2017	16/10/2018		-	65	12	51	77	01/10/2019
Cherwell	Former RAF Upper Heyford	Villages 5	-	-	-	-	-	-	-	-	-	-	-

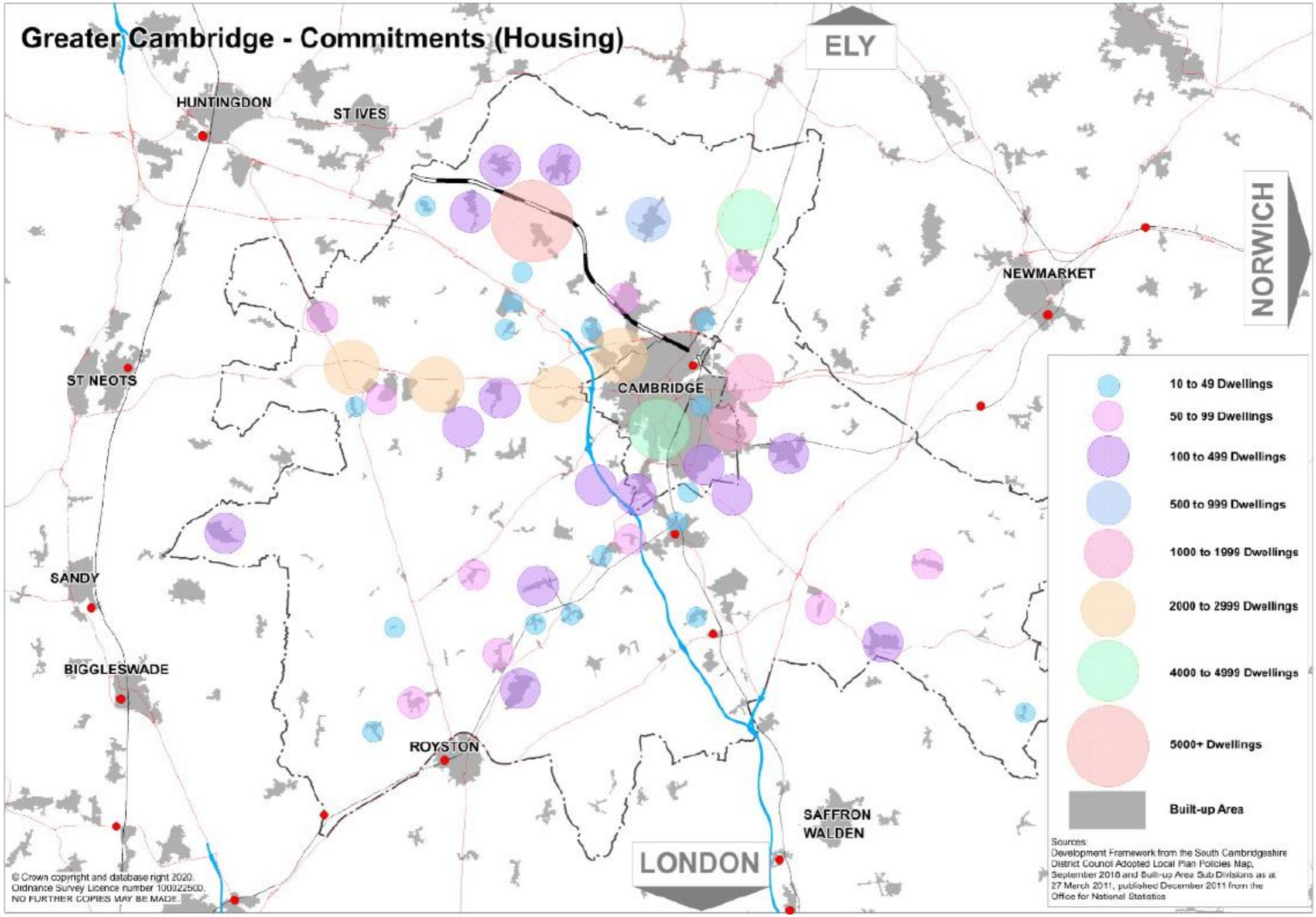
Local Authority	Strategic site name	Allocation reference	Date of first allocation	Date of validation	Date of outline permission	Date reserved matters approved	Date of full planning permission	Allocation to submission (months)	Submission to detailed approval (months)	Approval to first completion (months)	Total allocation to first completion (months)	Total submission to first completion (months)	Estimate date of first completion (midpoint in the year)
Aylesbury Vale	Berryfields MDA	-	-	-	-	-	-	-	-	-	-	-	-
Aylesbury Vale	Kingsbrook, Aylesbury East, Broughton Crossing	AGT6	-	24/12/2010	05/12/2013	21/07/2015	-	-	56	15	-	70	01/10/2016
Aylesbury Vale	Land North of Aston Clinton Rd, Weston Turville	-	-	09-Nov-15	11-Oct-17	24-Jul-19	-	-	45	15	-	60	01/10/2020
Aylesbury Vale	Land North Of A421 Tingewick Road Buckingham Buckinghamshire	-	-	17-Apr-15	25-Jan-17	12-Apr-19	-	-	49	6	-	54	01/10/2019
Aylesbury Vale	Land between Wendover Road and Aston Clinton Road	AGT4	-	05/03/2016	-	-	-	-	-	-	-	92	01/10/2023
Aylesbury Vale	Land south west of Milton Keynes	NLV001	-	30/01/2015	-	-	-	-	-	-	-	106	01/10/2023

Appendix 2 Commitments and Historic Delivery Rates

Completions	1999/2001*	2001/02**	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	Total	Average 2002/03-2018/19
Cambridge City completions	325	159	287	505	601	731	638	521	588	287	390	355	473	1,322	720	896	1,183	1,112	868	11,961	675
South Cambridgeshire completions	1,602	525	653	972	563	877	923	1,274	602	593	655	693	555	631	868	679	551	737	1,152	15,105	763
Total completions	1,927	684	940	1,477	1,164	1,608	1,561	1,795	1,190	880	1,045	1,048	1,028	1,953	1,588	1,575	1,734	1,849	2,020	27,066	1,439

Data taken from published AMRs
Cambridge City data 1999-2010/11 is from the Cambridge City 2017/18 AMR
South Cambridgeshire data 1999-2010/11 is from the South Cambridgeshire 2017/18 AMR
Data from 2011/12 onwards is from the Appendix 2 of the Greater Cambridge AMR 2018/19
* Source data is only available for a two-year period (1.7.99 – 30.6.01)
** Nine month period as monitoring year was moved from mid-year to mid-year to April to April (1st April to 31st March each year)




Greater Cambridge - Commitments (Housing)
ELY
HUNTINGDON
ST IVES
NEWMARKET
NORWICH
ST NEOTS
CAMBRIDGE
SANDY
BIGGLESWADE
ROYSTON
SAFFRON WALDEN
LONDON
10 to 49 Dwellings
50 to 99 Dwellings
100 to 499 Dwellings
500 to 999 Dwellings
1000 to 1999 Dwellings
2000 to 2999 Dwellings
4000 to 4999 Dwellings
5000+ Dwellings
Built-up Area
Sources:
Development Framework from the South Cambridgeshire District Council Adopted Local Plan Policies Map, September 2018 and Built-up Area Sub Divisions as at 27 March 2011, published December 2011 from the Office for National Statistics
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Appendix 3 Questionnaire

Greater Cambridge Local Plan Housing Delivery Study: development industry survey

Initial engagement with housebuilders, developers, planning agents, estate agents, and the construction industry

1. **Stakeholder details**
2. **Lead-in times**
3. **Build-out rates**
4. **Sales rates and market absorption**
5. **Windfall development**
6. **Custom and self-build housing**
7. **Specialist housing and housing tenure**
8. **Housing delivery and industry capacity**
9. **Other matters**
10. **Appendix1: Background information**

Privacy notice:
The Councils will comply with all laws concerning the protection of personal information, and both Councils have published privacy notices: www.scambs.gov.uk/privacynotice and www.cambridge.gov.uk/privacy-notice. In addition AECOM, as a contractor to the Councils for this Study, will comply with all laws concerning the protection of personal information, in accordance with its global privacy statement https://aecom.com/privacy-policy/global-privacy-statement/. Survey responses, including names, addresses and contact details will not be published, however anonymised responses will be reported in the Study. Please also be aware that under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004, the Councils must consider requests for disclosure of any information it holds.

The Councils are subject to the Freedom of Information Act 2000 and Environmental Information Regulations 2004, and laws concerning the protection of personal information. If you consider that any of the information that you provide as part of your response is commercially sensitive or personal information, please identify it as such and please explain how disclosure would be detrimental to your organisation. The Councils cannot guarantee non-disclosure of this information, but will apply any relevant exemption where one is clearly engaged.

1: STAKEHOLDER DETAILS		
Name:		
Organisation:		
Address:		
Email:		
Telephone:		
Stakeholder Type (please put a 'X' in the box for all that apply):	Landowner	
	Housebuilder / Developer	
	Housing Association / Registered Provider	
	Land Promoter	
	Builder / Contractor	
	Consultant (Surveyor, Planner)	
	Estate Agent	
	Other (Please specify)	
Sector (please put a 'X' in the box for all that apply):	Mainstream housing	
	Older people's housing	
	Affordable housing	
	Build to rent	
In relation to your activities in the Cambridge and South Cambridgeshire area	Approximately how many units do you build nationally each year?	
	Approximately how many units do you build in the Greater Cambridge area each year?	
	What is the typical site size?	
	What is the size of your biggest scheme?	

Would you be interested in follow-up interviews or workshops to discuss the issues raised further? (Yes/No, add comment if necessary)

2: Lead-in times

The time periods between the allocation of a site and the grant of planning permission and the time between the grant of planning permission and the start of construction on site are important to understand how quickly development may come forward. Historic monitoring data in Greater Cambridge indicates that this depends, amongst other things, on the size of the site (including if it is a strategic allocation in a Development Plan Document), the nature of the development and if the consenting route is through a full planning permission or outline and reserved matters planning permissions. Site-specific issues can also occur regarding infrastructure delivery or the need for a further Development Plan Document, Masterplan or Design Code to be adopted prior to or at the time of the determination of the planning application.

Figure 15 of the 2019 Housing Trajectory (replicated below) outlines the local assumptions currently used by the Councils to estimate lead-in times, based on an analysis of the time taken to progress from validation of a planning application to commencement of the development from a large sample of historic planning applications in the area.

Figure 15: Typical Assumptions for Lead-in Times in years

		Outline submitted to first dwellings under construction	Outline approved to first dwellings under construction	RM submitted to first dwellings under construction	RM approved to first dwellings under construction	Full submitted to first dwellings under construction	Full approved to first dwellings under construction	PA submitted to first dwellings under construction	PA approved to first dwellings under construction
Cambridge	Non-strategic Sites					2.0 (2.1)	1.5 (1.3)	1.0 (0.9)	0.5 (0.6)
	All Sites			1.5 (1.7)	1.0 (1.0)				
South Cambridgeshire	Non-strategic Sites	3.5 (3.6)	2.0 (2.1)			2.0 (2.2)	1.0 (1.1)	1.0 (0.8)	0.5 (0.7)
	All Sites			1.5 (1.4)	1.0 (0.8)				

NOTE: All Sites = includes Strategic Sites, RM = reserved matters, PA = prior approval, and the numbers included in brackets are the actual lead-in times based on the data analysed, whereas the numbers without brackets are the rounded typical assumptions.

In due course the Housing Delivery Study will consider the lead-in times for the different types of sites, helping to inform the development of the Greater Cambridge Local Plan.

For the purpose of this survey, Lichfield's (2020) "Start to Finish" report provides useful context. Whilst this research uses a larger sample size than simply looking at historic sites within Greater Cambridge, it is based on national research including large sites in weaker housing markets than Greater Cambridge.

Site size	Average planning approval period (years)	Average planning to delivery period (years)	Total lead-in time (years)
50-99	1.4	2.0	3.3*
100-499	2.1	1.9	4.0
500-999	3.3	1.7	5.0
1,000-1,499	4.6	2.3	6.9
1,500-1,999	5.3	1.7	7.0
2,000+	6.1	2.3	8.4

*does not sum due to rounding

Do you recognise the local data in Table 15 above as being representative of this area and your sites? If not, in what way is it different?

What, if anything, could the following consultees do to improve lead-in times? And for your site(s) specifically?

Cambridge City Council, South Cambridgeshire District Council, Cambridge and Peterborough Combined Authority or Homes England	
Non-Departmental Public Bodies (Historic England, Natural England, Environment Agency)	
Highways England, Cambridgeshire County Council (Highways Authority), Network Rail	
Utilities companies (drainage, water, power)	
Other (please describe)	

In the short-medium term, if the proposed change to increase the national minimum site size threshold for seeking affordable housing contributions is brought in, do you think that will affect lead-in times for development? Do you think that it would increase or reduce lead-in times?

In the longer-term, if the Planning White Paper proposal to grant outline planning permission through a Local Plan allocation is brought in, do you think that will affect lead-in times for development? Do you think that it would increase or reduce lead-in times?
Please add any further comments that may be relevant for lead-in times
3: Build-out rates
Once construction begins on a site with planning permission, development sites are built out at different speeds. The rate of build out depends on a wide range of factors, including the nature of the development, the size of the site, the number of outlets, the relationship with other (competing) sites and the price point of the scheme. According to the Letwin Review, the fundamental driver of build out rates is the 'absorption rate' or rate at which homes are sold. With a wider range of homes on offer, it is possible to deliver homes on major strategic sites more quickly. Including a diverse range of homes from one-bedroom apartments to larger family homes and bungalows will appeal to a wider range of buyers, 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, rural greenfield sites provide mostly larger, multiple bedroom homes because families tend to be the buyers most willing to trade proximity to the workplace for open, green spaces and being close to good schools. However, broadening the mix to include more apartments 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 build to rent properties alongside owner-occupier homes, further widens the market and balances out community demographics. Greater numbers of affordable homes can also increase annual delivery rates as the affordable homes are generally seen as being additional to the market homes, allowing further completions without competition affecting sales prices. 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 along railway lines that offered reliable public transport services to London. 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. An analysis of historic monitoring data for Greater Cambridge has led to the Councils using 'typical assumptions' (as per Figure 17 of the 2019 housing trajectory, replicated below) for estimating build-out rates on non-strategic sites

(i.e. relatively smaller sites that are not underpinned by strategic allocations in the development plan, including windfalls and smaller allocations in urban or village locations).

Figure 17: Typical Assumptions for Build Out Rates, excluding strategic sites

	Size	Peak dwellings per year	Average dwellings per year	Number of years of completions
Cambridge	10-49	40	12	1
	50-99	99	90	1
	100-199	150	82	2
South Cambridgeshire	10-49	39	15	1
	50-99	80	38	2
	100-199	90	60	3

For larger strategic sites the Councils typical assumptions are for a build out rate of 250 dwellings per annum, with the first year or two at a slightly lower build out rate, unless the developer progressing the site has stated that they will develop at a lower annual rate. This approach was agreed at the Local Plan Examination in Public and is currently used for Waterbeach New Town, and major developments on the edge of Cambridge, but because Bourn Airfield New Village and Cambourne West are only 1.5 miles or so apart a lower build out rate of 150 dwellings per annum for each was assumed (or 300 dwellings per annum combined).

The 250 dwellings per annum figure is significantly higher than the equivalent Lichfields data (see table below) but reflects the strong demand in the local housing market.

Site size	Median housing delivery (dwellings per annum)	Mean delivery as % of total on site	Mean annual delivery (dwellings per annum)	Mean annual delivery as % of total units on site
50-99	27	33%	22	29%
100-499	54	24%	55	21%
500-999	73	9%	68	9%
1,000-1,499	88	8%	107	9%
1,500-1,999	104	7%	120	7%
2,000+	137	4%	160	4%

Do you recognise the above local completions data (as shown in Figure 17) as being representative of this area? If not, in what way is it different?

In a 'normal' market, how many sales of market housing per year would you expect per outlet?
How many affordable housing completions per year would you expect per outlet?
What is the site size threshold to have more than one outlet?
Is there a maximum number of outlets that a strategic site could accommodate (excluding specialist housing schemes)?
What specific conditions would be required to deliver higher levels of housing per annum on strategic sites, above the 250 dwellings per annum currently assumed?
What do you think the maximum number of annual completions could be on a strategic site (assuming any specific conditions referred to above are met)?
Where there is more than one outlet, what factors influence the sales rates and would you expect each outlet to have a sales rate that is less or more than a single outlet?
What could the Councils do to ensure the outlets complement each other to enhance build out rates, rather than compete against each other?
Please estimate your expected build out rates (units per year) on the following sized sites:

0-10 dwellings	
11-20 dwellings	
21-50 dwellings	
51-100 dwellings	

101-250 dwellings	
251-500 dwellings	
500 dwellings plus in an urban extension	Per Outlet: Overall:
Smaller new settlement of approx. 5,000 dwellings	Per Outlet: Overall:
Larger new settlement of 10,000 dwellings plus	Per Outlet: Overall:
If the proposed change to increase the national minimum site size threshold for seeking affordable housing contributions is brought in, do you think that will affect build-out rates? Do you think that it would increase or reduce build-out rates?	
In the short-medium term, if the proposed introduction of First Homes is brought in, do you think that will affect build-out rates? Do you think that it would increase or reduce build-out rates?	
In the longer-term, if the proposed new 'Infrastructure Levy' as set out in the Planning White Paper is brought in, do you think that will affect build-out rates? Do you think that it would increase or reduce build-out rates?	
Please add any further comments that may be relevant for build-out rates	
4: Sales rates and market absorption	
Overall, the market has a finite capacity to absorb new housing. The Letwin Review concluded "if either the major house builders themselves, or others, were to offer much more housing of varying types, designs and tenures including a high proportion of affordable housing, and if more distinctive settings, landscapes and streetscapes were provided on the large sites, and if the resulting variety matched appropriately the differing desires and financial capacities of the people wanting to live in each particular area of high housing demand, then the overall absorption rates – and hence the overall build out rates – could be substantially accelerated." To increase the number of completions, and capacity of the market to absorb new housing, it will be necessary to respond to the factors raised in the Letwin Review: providing a sufficient diversity of housing types, sizes, locations, tenures and prices to cater for need and demand across the entire market. The Councils are seeking a better understanding of these aspects of the market, both now and over the plan period.	

The Councils are considering a range of options for housing growth in the Joint Greater Cambridge Local Plan. There are several factors that will impact on this directly, however an underlying driver is how the household population changes. The population changes naturally through births and deaths, and these household population changes mean that households form at different points. Different types of households tend to live in particular tenures, for example newly forming households tend to be found in the private rented sector, families with children tend to be found in homes with mortgages and older households often under-occupy their homes which are owned without mortgages. Where a Council sets a housing requirement that is more than the natural rate of change, the additional houses will be filled by more households forming for the first time (or at a younger age) or by increased migration (internal or international). The 'affordability adjustment' in the government's Standard Method for calculating a local housing need figure, is in part aimed to ensure that by building more houses than the existing population requires, the upward pressure on house prices will be relieved. The promotion of alternative tenures such as affordable housing, the private rented sector (through build to rent) and First Homes recognises the challenges faced by many households in accessing market housing.
Who are the new buyers/renters of homes in Greater Cambridge? What is their reason for moving – change of circumstance / life stage, moving for employment reasons? Are they local or in-migrants?
Where do the buyers/renters want to live e.g. new settlements, central Cambridge, villages? Is there a difference in their preference based on where they come from? Do local buyers have different preferences to those relocating from within the UK or internationally?
What is the demand for new-build properties relative to existing 'second hand' properties?
What are the most popular tenures and products among buyers and renters?
Where there is more than one outlet, what factors influence the sales rates? Would you expect each outlet to have a sales rate that is <u>less</u> or <u>more</u> than a single outlet?
What could the Councils do to ensure the outlets complement each other to enhance build-out rates, rather than compete against each other?

Short-term: Do you think that COVID-19 will have a permanent impact on buyer/renter preferences? If so, how?
Short-term: What effect will reduced access to mortgage finance have in Greater Cambridge? For example, will it affect house prices or delivery rates?
Please add any further comments that may be relevant for sales rates and market absorption
5: Windfall development
The National Planning Policy Framework (NPPF) defines a windfall site as a site "not specifically identified in the development plan". National policy requires local planning authorities to support the development of windfall sites through their policies and decisions – giving great weight to the benefits of using suitable sites within existing settlements for homes. The NPPF states that "where an allowance is to be made for windfall sites as part of anticipated supply, there should be compelling evidence that they will provide a reliable source of supply. Any allowance should be realistic having regard to the strategic housing land availability assessment, historic windfall delivery rates and expected future trends". The current Local Plans assume an average of 130 dwellings per annum within Cambridge from windfall sites, and 220 dwellings per annum within South Cambridgeshire, calculated using monitoring data over the period 2001-2018. These sites include all developments that are not allocated; however the figures do not include the development of residential gardens. Delivery of affordable housing through rural exception sites is an important component of the windfall figures. Over the period 2004/05-2018/19 an average of 38.5 dwellings per annum has come forward through rural exception sites, however up to 31 March 2014 the figure was 49 dwellings per annum (included in the windfall allowance). The windfall allowance is calculated based on historic completions, and since then the Local Plans have been adopted in 2018 with updated development management policies and the Government has amended the General Permitted Development Order to allow the upward extension of existing homes and demolition and rebuild of vacant residential and commercial buildings without the need for full planning permission. These changes have the potential to change the future rate of windfall completions compared to the trends seen between 2004/05-2018/19.
The existing Local Plan assumes an average of 130 dwellings per annum within Cambridge from windfall sites, and 220 dwellings per annum within South Cambridgeshire. Do you think that this rate of delivery will continue into the future?

In your experience, what are the main sources of windfall development locally? E.g. change of use conversions, sub-division of larger properties, backland and infill development, additional storeys on buildings, rural exception sites.
Are there specific locations or types of sites where there is potential for greater levels of windfall development, for example through intensification/redevelopment in the new Local Plan?
What do you think will be the impact of the new expanded Permitted Development Rights on windfall development in Greater Cambridge?
Over the period 2004/05-2018/19 an average of 38.5 dwellings per annum came forward through rural exception sites, however up to 31 March 2014 the figure was an average of 49 dwellings per annum (included in the windfall allowance). Do you envisage this 38.5 dwelling per annum rate of rural exception site completions continuing into the future?
Short-term: If the proposed extension to Planning Permission in Principle is brought in; do you think that it will increase the annual number of completions from windfall development?
Please add any further comments that may be relevant for windfall development.
6: Custom and Self-build housing
Custom and self-build housing is housing built or commissioned by individuals (or groups of individuals) for their own occupation. Under section 1 of the Self-Build and Custom Housebuilding Act 2015, local authorities are required to keep a register of those seeking to acquire serviced plots in the area for their own self-build and custom house building. They are also subject to duties under sections 2 and 2A of the Act to have regard to this and to give enough suitable development permissions to meet the identified demand. The Councils want to understand your experiences of delivering custom and self-build housing. It is well recognised that this is a complication to development where larger sites are expected to make provision for a proportion of custom and self-build dwellings on-site. Smaller custom and self-build sites are being delivered in the Greater Cambridge area independently, however, to facilitate delivery of these types of housing the South Cambridgeshire Local Plan has a requirement in Policy H/9 (Housing Mix)

that states “On all sites of 20 or more dwellings, and in each phase of strategic sites, developers will supply dwelling plots for sale to self and custom builders. Where plots have been made available and appropriately marketed for at least 12 months and have not been sold, the plot(s) may either remain on the market or be built out by the developer. Exceptionally, no provision will be expected in developments or phases of developments which comprise high density multi-storey flats and apartments”. Policy H9 is a relatively new policy requirement adopted in 2018 and therefore the lead-in times and build-out rates locally for these developments is not yet fully understood, given the policy only applies to larger sites granted permission since plan adoption.
Have you been involved with any sites that are either wholly self-build or custom build housing or have an element of self-build or custom build housing? What were your experiences? Has this affected the overall lead-in times or build-out rates for the development in any way? Has this affected the lead-in times or build-out rates for the specific self or custom build plots?
If so, how was this delivered? For example, did you simply sell off a corner of a site that was separate, did you sell serviced plots or did you offer a full or partial ‘bespoke’ service, to deliver a customised (but not unique home)?
What is a reasonable site size threshold for on-site delivery of custom and self-build housing, and why?
What practical measures could the Council introduce to enable delivery in this area?
What is your appetite for a custom build approach? What factors are required (design code, outline/obligations/RMs approach etc) for this to work for you?
Please add any further comments that may be relevant for custom and self-build housing
7: Specialist housing and housing tenure
The Letwin Review found that heterogenous housing markets with high varieties of different types of housing tenure offer more opportunities to accelerate delivery as they provide more opportunities to target demand from different end user groups. The Letwin Review also found that open market sale, open market private rented,

discounted or ‘affordable’ homes (including shared ownership) and ‘social’ rented were complementary products that did not overlap with one another.

In this context we refer to specialist housing as a type of housing that is targeted at a specific sector and in many cases restricted to that sector through the planning consent. Historically it has included sectors such as student housing, and older peoples’ housing (Sheltered Housing and Extra-care).

The Local Plan 2018 policy for affordable housing in South Cambridgeshire is to provide 40% on-site provision on sites of 11 dwellings or more; and for Cambridge it is a minimum of 25% for sites of 11-14 dwellings and 40% for 15 or more dwellings. The precise affordable size and tenure mix is not specified in policy in either plan. With regards to specialist housing, South Cambridgeshire requires 5% of homes to be M4(2) standard adaptable dwellings; whilst Cambridge requires all housing to be M4(2) standard with 5% of affordable homes meeting M4(3) standard wheelchair user dwellings.

Since the Local Plans were adopted the Government has consulted on introducing First Homes as a new type of low cost affordable home ownership (through a consultation in February 2020), and then more recently in the August 2020 “changes to the current planning system” consultation the securing of First Homes through developer contributions in the short term, and supporting small and medium-sized builders by temporarily lifting the small sites threshold below which developers do not need to contribute to affordable housing to 40 or 50 dwellings. These changes have the potential to change the quantum and tenure of affordable housing delivered in the future from that which is currently delivered. -

Build to Rent (BTR) is a growing part of the market in the UK and Greater Cambridge has many of the attributes that could make it an attractive location for this product. A critical benefit that BTR brings is to create scale of development in new locations quickly. This in turn brings activity that helps to drive ‘placemaking’. The potential implications of large-scale build to rent on sustainable communities also needs to be considered. The parameters for successful BTR locations are typically access to transport hubs, access to areas of high employment, an established commercial centre and a high demographic of 25-34 year olds.

What is your view on local demand for specialist housing? What criteria do occupiers look for? Does the local level of demand support an increase in delivery of this type of housing? What could be done to increase the delivery from this type of housing?

What is your view on local demand for older people’s housing? What criteria do occupiers look for? Does the local level of demand support an increase in delivery of this type of housing? What could be done to increase the delivery from this type of housing?

What is your view on local demand for student housing? What criteria do occupiers look for? Does the local level of demand support an increase in delivery of this type of housing? What could be done to increase the delivery from this type of housing?

What is your view on local demand for Build to Rent and Private Rental Sector housing? What criteria do occupiers look for? Does the local level of demand support an increase in delivery of this type of housing? What could be done to increase the delivery from this type of housing?
Do the lead-in times and build-out rates for specialist housing; older people's housing; student housing and Build to Rent and Private Rental Sector housing differ to 'conventional' C3 market and affordable housing? If so, how?
Are there any barriers to the delivery of affordable housing in Greater Cambridge? If so, what are they?
Short-term: If the Government's proposal to remove the affordable housing requirement for sites under 40 or 50 dwelling is brought in, what impact do you think First Homes would have on affordable housing delivery in Greater Cambridge?
Please add any further comments that may be relevant for specialist housing and housing of different tenures
8: Housing delivery and industry capacity

Recent levels of housebuilding in Greater Cambridge, as measured by the Government's Housing Delivery Test, shows that over the period 2016/17 to 2018/19 an average of 2,125 dwellings have been completed. The three housing quantum options were identified in the First Conversation consultation is as shown in the table below. This shows that recent completions in the past 3 years have been above the Local Plan requirement and the Government's Standard Method assessment of local housing need in the area. To meet the higher growth scenario the rate of delivery would need to significantly increase.

Description	Overall requirement (2017-2040)	Annual requirement (dwellings per annum)
Current Local Plan	33,500	1,675
Standard Method	40,900	1,800 (approx.)
Based on the Cambridge and Peterborough Independent Economic Review	66,700	2,900 (approx.)

The nature of the developer and their financing model can affect the rate of delivery on sites. Housing delivery rates are significantly influenced by the

business models of housebuilders and their gearing. Individual housebuilder priorities will change over the course of their financial years and across the development cycle, but units are typically drip fed into the market to avoid an oversupply which would reduce values below that assumed when purchasing the land. Compared to larger volume housebuilders, SME builders can find it relatively more difficult to access finance early on in the planning process to acquire sites and fund upfront technical studies to support planning applications, due to the perceived risk from lenders. On larger sites the master developer model offers an opportunity to diversify the number and type of developers by providing a varied supply of serviced plots – underpinned by appropriate supporting infrastructure – to different types of housebuilders. Using their land acquisition powers public sector delivery bodies can be effective in overcoming issues around equalisation to fund infrastructure and the speed and level of housing delivery. The rate of housing delivery is also constrained by the supply chains and availability of labour and capital. The Councils are seeking to understand how the market is constrained and what it can do to relieve those constraints. For example, Modern Methods of Construction (MMC) could help to speed up the delivery of housing and can deliver highly sustainable (in terms of energy usage) housing. MMC is being used by Urban Splash at Northstowe. The Councils wish to further understand how they can support different types of developers and remove barriers to the delivery of housing, whilst exploring the potential for innovation such as MMC.
Does local housebuilding capacity exist to significantly increase delivery above recent completions (an average of 2,125 dwellings per annum between 2016/17 – 2018/19 under the Housing Delivery Test)? Does size matter both in terms of the developer and the size of the growth location?
Would it be possible for housebuilders to deliver the higher 2,900 dwellings per annum figure from the First Conversation consultation either: a) within the first five years, b) after a period of time allowing housebuilding capacity to increase, c) by the end of the plan period (2041), or d) not at all?
What impact do you think Modern Methods of Construction (MMC) will have on housing delivery and the capacity of the housebuilding industry to increase delivery?
Is there anything that the Councils, or the public sector more generally, could do to de-risk sites and help developers obtain access to finance?
Short-term: Do you anticipate that Brexit and COVID-19 will affect the local availability of labour, materials and the speed of construction in Greater Cambridge?

Short-term: If brought in, will the government's proposals to boost the SME housebuilding sector through increasing the size of sites eligible for permission in principle and removing s106 planning obligations for affordable housing contributions of sites under 40 or 50 dwellings boost housebuilding capacity in Greater Cambridge?
Please add any further comments that may be relevant for housing delivery and industry capacity
9: Other matters
The Housing Delivery Study is covering a broad range of topics. Please do not hesitate to make any further comments below. In particular, what can the Councils do to facilitate development (early provision of infrastructure, would the government's ideas on 'zoning' assist, specified housing mixes, master planning etc)?

Appendix 4 Greater Cambridge Local Plan Housing Delivery Survey – Summary and Analysis of Responses

Overview

This appendix provides a summary and analysis of the responses AECOM received from a survey conducted on behalf of Cambridge City Council and South Cambridgeshire District Council. The two councils are jointly preparing the emerging Greater Cambridge Local Plan.

A survey on housing delivery was sent out to local stakeholders to gather their opinions and feedback. The survey asked for commentary on lead-in times; build-out rates; sales rates and market absorption; windfall development; custom and self-build housing; specialist housing and housing tenure; and housing delivery and industry capacity.

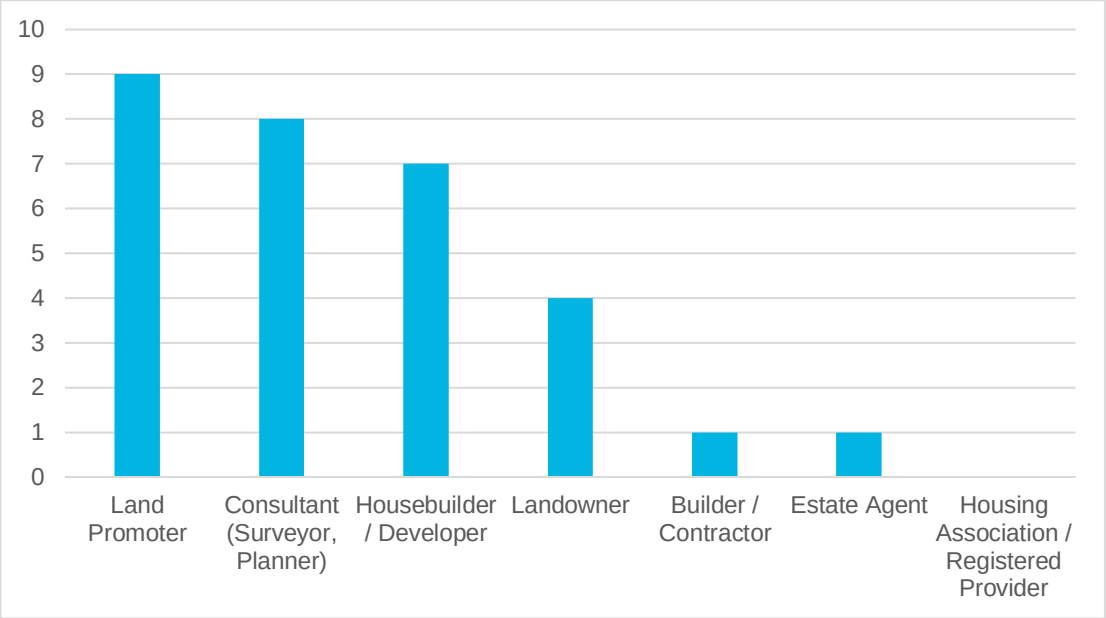
This appendix is structured similarly to the survey with chapters relevant to each survey section. The survey began by asking respondents for details so this note begins with a short analysis of the survey respondents.

Survey respondents

The survey received 16 responses from the following organisations: The Abbey Group Cambridgeshire, Axis Land Partnerships Limited, Barker Parry Town Planning Ltd, Carter Jonas on behalf of CEMEX UK Properties Ltd, Carter Jonas LLP, European Property Ventures (EPV), Southern & Regional Developments, Countryside Properties, Deloitte on behalf of Grosvenor Britain & Ireland, Lichfields on behalf of CEG, M Scott Properties Ltd, Pegasus Group, Prestige GP Ltd, Quod on behalf of Marshall Group Properties Limited, Rapleys LLP on behalf of Mactaggart and Mickel Homes (M&M Homes) Limited and Thakeham Homes Ltd.

Of the 16 respondents, 5 were based in Cambridgeshire, while the other 11 were based in other parts of the UK but all had been involved with work in the area.

The following bar chart shows the type of stakeholders by professional discipline. The numbers do not total 16 because stakeholders often selected more than one category in the survey. The largest representation was from land promoters, closely followed by consultants (either surveyors or planners) and housebuilders / developers. There were fewer respondents who described themselves as builders or estate agents and no housing associations or registered providers.



15 of 16 respondents described themselves as providing mainstream housing, with the outstanding 1 having left this response blank. 11 respondents added that they also provided affordable housing. Only 5 respondents reported specifically providing older people's housing, and 4 build to rent.

Too few respondents provided answers to questions on the number of units built nationally a year and the number of units built in the Greater Cambridge area each year to provide a reliable sample. However, the number of units built nationally varied widely by respondents from 30 at the low end to 5,000 at the high end, showing that the respondents encompass a wide range of organisations by size.

The typical site size which respondents develop tended to fall between 10 and 30 hectares and the largest schemes respondents had developed had a range of 30 units to 12,000 units with a mean of approximately 3,000. The stakeholders include small developers which have typically worked on schemes comprising 30 units on 2 hectare sites. In addition, the stakeholders include the very largest developers such as Countryside Properties, who are regularly building large urban extensions or new settlements with thousands of homes and the assembly of hundreds of hectares of land.

All 16 respondents responded that they would be interested in follow-up interviews or workshops to discuss the issues further which is highly encouraging and shows enthusiasm for the consultation process. Those that added a comment stressed that they would welcome the opportunity to help inform the Local Plan process.

Lead-in times

Do you recognise the local data in Table 15 above as being representative of this area and your sites? If not, in what way is it different?

Most respondents found that the data was not representative for the area or their site, only 2 of 16 responded that the data was representative. One medium-sized developer suggested that the data did not take account of the time taken to receive pre-application advice, or schemes which were withdrawn and therefore concealed from the data. A planning consultancy raised the issue of lengthy waits for outline and reserved matters permissions, while another concurred that the data was optimistic in

terms of the time taken to obtain approval for schemes, with additional delays often caused by site-specific issues or slow response times from statutory consultees. A major developer raised a specific issue with build-out rates on their sites in South Cambridgeshire, suggesting that the Local Plan examination had delayed outline approvals significantly. A property investment firm argued that the data should take account of the time taken for schemes to have outline and then reserved matters approvals. A development consultancy and a medium-sized developer both suggested that pre-application advice is a crucial part of any major planning application process. A property agent raised a broader issue about the methodology of the data collection, arguing that the Councils have skewed the data to reflect optimistic build-out rates by excluding schemes considered to have had abnormal delays. They also asserted that greater time needed to be added to take account of the preparation required on site to put in place infrastructure which can add up to 6-9 months delay.

In summary, respondents to this question highlighted that the data had not taken sufficient account of the delays created by lengthy pre-application discussions alongside outline and reserved matters approvals. One suggested the data collection had skewed the sample towards delivering an optimistic projection

What, if anything, could the following consultees do to improve lead-in times? And for your site(s) specifically?

Local and regional government respondents requested more resourcing for planning teams so that they could provide more timely pre-application advice, allow for regular communication through the whole application process and also ensure experienced professionals handle these complex discussions. A common theme to these responses was a frustration with the lack of resourcing which the Councils' planning teams have, leading to delays and insufficient advice and communication. Two consultancies also raised the view that the Councils should ensure that allocations are in locations which lend themselves to early delivery, rather than placing the onus on difficult development management discussions later down the line.

For Non-Departmental Agencies and Public Bodies, a common response was that these bodies should always respond within the statutory period. Delays in these responses can have significant implications for build out rates and lead in times. In addition, some respondents suggested involving these public bodies more in pre-application discussions to anticipate any issues better.

Infrastructure and utilities respondents were keen for a more joined-up approach to the planning process, with involvement in pre-application stage. A major developer specifically raised the issue that there is insufficient cooperation on the funding and delivery of strategic infrastructure at the earliest stages of plan preparation.

In the short-medium term, if the proposed change to increase the national minimum site size threshold for seeking affordable housing contributions is brought in, do you think that will affect lead-in times for development? Do you think that it would increase or reduce lead-in times?

The consensus was that this would moderately reduce lead-in times, especially for small to medium sites which are presently above the threshold. One development consultancy provided more detailed commentary, suggesting that this would reduce the constraints created by phasing, negotiations over affordable housing provision and finding a registered provider. However, this would only have a mild impact compared

to improving the approvals process and ensuring infrastructure is deliverable at an early stage.

In the longer-term, if the Planning White Paper proposal to grant outline planning permission through a Local Plan allocation is brought in, do you think that will affect lead-in times for development? Do you think that it would increase or reduce lead-in times?

There was cautious optimism that the Planning White Paper would likely reduce lead-in times. However, the certainty and extent of improvement would only be known when the finer details are available. A land promoter/developer raised their view that Local Plans might experience more complex examinations due to the increased level of detail needed to justify site allocations, as these could effectively become outline applications within Local Plans. This could also delay some issues towards further matters applications if the planning authority wished to expedite the allocation. However, two development consultancies felt that the reforms would front-load detailed requirements for site promoters and potentially present the planning authority with too high a volume of information about sites at the plan-making stage. A town planning consultancy suggested that ultimately better resourcing would be needed to ensure that the reforms would work effectively. A major developer felt greater detail was needed on the Design Codes process, but if successfully implemented reforms could rapidly speed up delivery.

Further comments that may be relevant for lead-in times

One development consultancy suggested that there ought to be flexibility within the chosen housing strategy, and greater consideration of villages to ensure a suitable mix of sites. This may also avoid some of the deliverability issues of large urban extensions or new settlements. Two property investment firms referenced Lichfields' 'Start to Finish' second edition which highlights that large schemes of more than 500 dwellings that have outline permission take on average 3 years to deliver the first home. However, from the date at which an application is validated the average figures can be 5 - 8.4 years for the first home to be delivered. This shows that there are delays in the planning process from validation that have a major effect on housing delivery as such sites make no contribution to completions in the first five years.

Lead-in times key summary points

- The Councils need more resourcing to reduce lead-in times
- Pre-application advice needs to be more detailed with more seamless communication and responsiveness
- The data is too optimistic and does not fully take account of the delays created by the planning process and infrastructure provision

Build-out rates

Do you recognise the above local completions data (as shown in Figure 17) as being representative of this area? If not, in what way is it different?

Respondents found that the data for completions was broadly more representative than the data for lead-in times. One medium-sized developer responded that the data was not reflective of their experience because higher rates depend on multiple house

builders and this may not always be the case. Two property investment firms both considered that the figures were too optimistic and did not reflect site specific factors. Meanwhile, a major developer and another investment firm felt the data was representative. A consultancy advising a property investment firm suggested that build-out rates could be higher, especially on larger strategic sites in Greater Cambridge and achieve up to 400 dwellings per annum. There was a wide variety of opinions on this question but overall, respondents were more supportive of this data than the lead-in times data.

Several of the following questions were numerical and responses have been summarised in a table below:

Question	Responses
In a 'normal' market, how many sales of market housing per year would you expect per outlet?	Tended to largely cluster around 50 homes, with two outliers at 200 or above (which we assume are referring to a 'main outlet' attached to a strategic site)
How many affordable housing completions per year would you expect per outlet?	Small sample of responses mostly within a range of 40 to 100. Suggestion that it would be dependent on proportion and tenure
What is the site size threshold to have more than one outlet?	Most responses fell between 200 and 500 dwellings as a site size threshold with one outlier suggesting up to 1,000 dwellings as a threshold
Is there a maximum number of outlets that a strategic site could accommodate (excluding specialist housing schemes)?	Small sample of responses but cluster in the mid-single figures, with some respondents suggesting 3outlets as a maximum, but others suggesting 6. An outlier suggested up to 10.
What do you think the maximum number of annual completions could be on a strategic site (assuming any specific conditions referred to above are met)?	Responses clustered between 200 and 500 dpa. 250 would likely be an example of a commonly achievable figure, and 500 would represent a site that had reached a notably high rate of completions.
Please estimate your expected build out rates (units per year) on the following sized sites: 0-10 dwellings	Those that responded reported 10 dwellings
11-20 dwellings	Those that responded reported 20 dwellings
21-50 dwellings	Those that responded reported 25 dwellings
51-100 dwellings	Those that responded reported 30 to 50 dwellings
101-250 dwellings	Those that responded reported 45 to 80 dwellings

251-500 dwellings	Those that responded reported 60 dwellings
500 dwellings plus in an urban extension	Per Outlet: 30 to 125 dwellings Overall: 100 to 250 dwellings
Smaller new settlement of approximately 5,000 dwellings	Per Outlet: 30 to 125 dwellings Overall: 160 to 250 dwellings
Larger new settlement of 10,000 dwellings plus	Per Outlet: 30 to 125 dwellings Overall: 200 to 400 dwellings

What specific conditions would be required to deliver higher levels of housing per annum on strategic sites, above the 250 dwellings per annum currently assumed?

Several respondents raised the importance of having multiple access points for sites, including developers and property investors. One firm of planning consultants raised the importance of supporting innovative developers and housebuilders, including SMEs and self-builders, while two developers both mentioned the importance of the site having a variety of different outlets. A major landowner suggested that that sites with multiple housebuilders tended to have higher delivery levels. This effect would be increased if coupled with infrastructure already in place to support delivery. One developer was more concerned about market conditions and suggested that higher levels of delivery would require high absorption rates alongside a suitable tenure mix and range of housing products. In general, respondents felt that sites with a suitable range of developers and infrastructure in place would achieve higher delivery levels.

Where there is more than one outlet, what factors influence the sales rates and would you expect each outlet to have a sales rate that is less or more than a single outlet?

The main factors raised included the variety of housing products offered by different outlets. For example, a development consultancy raised the concern that when multiple outlets offer the same products this can saturate the market. However, most respondents felt that having multiple outlets generally improved sales performance. A major landowner/developer also added that affordable housing tended to encourage higher delivery rates and that the Letwin Review had underlined evidence that multiple outlets have a broadly positive impact on build-out rates. The comments imply that potentially greater competition between developers leads to a better range of housing products, and thereby meets market demand more comprehensively.

What could the Councils do to ensure the outlets complement each other to enhance build out rates, rather than compete against each other?

Respondents raised the importance of permitting varied housing stock and products, with different character areas across the site. Where possible, the Councils should assist build out rates by avoiding unnecessary trigger points or phasing issues. One developer added that high quality masterplanning can avoid delivery issues at an early stage. One developer raised an interesting argument that the lack of community infrastructure at the early stages of a site build-out dampens demand and more support for placemaking is needed to avoid delivery issues.

Few respondents answered the questions about the national minimum size threshold or the proposed First Homes program. Respondents felt that the proposed new Infrastructure Levy would simplify the process and reduce lead-in times.

The following survey responses are summarised by chapter as a whole.

Build-out rates key summary points

- The data projections are broadly in line with respondent experiences
- To encourage higher build-out rates, multiple outlets with a range of housebuilders / developers should be encouraged
- The deliverability of infrastructure at an early stage of build-out is key and should be a priority for the Councils

Sales rates and market absorption

Similarly to the other following chapters, respondents tended to leave a greater number of answers blank. Therefore the sample sizes for these sections are less reliable than with the lead-in times and build-out rates where there tended to be a much higher response rate.

There was a consensus that Greater Cambridge is seeing very high market demand owing to job growth and also Covid-19 related internal migration, as home working provides greater locational flexibility. Buyers and renters are keen to live in more sustainable locations with a greater service array and connectivity. The differentiated popularity of new-build properties may be concealed by the overall shortage of housing which is driving demand for all homes in the area. Respondents felt that The Covid-19 Pandemic would have a major and lasting on buyer and renter preferences, with a greater demand for private space and green space. With less of a dependence on living in large conurbations, it is anticipated that buyers will seek homes in smaller settlements and rural areas where they can work from home but enjoy greater domestic space.

Windfall development

Most respondents were keen to impress the point that windfall rates assumed in the existing Local Plan were not sustainable. They argued this point chiefly based on the decreasing number of suitable brownfield sites and infill sites in the area, many of which have already been developed, combined with Green Belt restrictions. While one development consultancy added that the windfall rate had been calculated with monitoring data influenced by a period when the LPA did not have a five-year land supply and an up to date Local Plan which encouraged major windfall sites to come forward, another raised the point that permitted development rights could bring forward a greater delivery of windfall development. The main sources of windfall are backland, infill and rural exception sites in the Greater Cambridge area. The locations likely to bring forward windfall would be the edge of villages which are bound by the Green Belt but require new homes. Respondents suggested that windfall on rural exception sites is likely to fall with an updated Local Plan with more identified land supply and allocations in locations facing fewer barriers to delivery.

Custom and self-build housing

There were few responses to this section but those that did respond raised the issue of uncertainty and the lack of support for delivery rates. Most respondents were not enthusiastic for custom and self-build housing owing to the lack of tried and tested frameworks ensuring that plots are built out and were concerned custom and self-build would not compete with the build out rates achieved by housebuilders. In addition, buyers may be deterred by the difficult in securing self-build mortgages.

Specialist housing and housing tenure

Respondents reported that they found high demand for specialist housing across the Greater Cambridge area, particularly student accommodation and older person's housing including supported living. An ageing population and greater care needs are driving a much higher need for older people's housing, this is being exacerbated by the current undersupply of specialist housing, particularly residential and nursing care facilities. One strategic land promoter felt strongly that the emerging Local Plan did not go far enough to meet the need for older person's housing, which had been evidenced by modelling suggesting that Cambridge would be experiencing a very rapidly ageing population. Some respondents suggested that older person's housing could be built in areas not reliant on employment centres or public transport given the different needs of this demographic. Whereas with student housing, there is a definite need for public transport links and proximity to Cambridge City Centre.

There was inconclusive feedback on whether lead-in times differed for specialist housing. Respondents agreed that there were significant barriers to the delivery of affordable housing caused by viability issues, a lack of registered providers and available funds and reduced economies of scale, especially in rural areas. The Government's proposal to remove the affordable housing requirement for sites under 40 or 50 dwellings would reduce affordable housing delivery, and some respondents felt that First Homes were geared to a certain market segment, first time buyers, rather than all those looking for affordable homes.

Housing delivery and industry capacity

Although a small sample responded, most concluded that there was local housebuilding capacity to significantly increase delivery above recent completions rates and that the higher 2,900 dpa figure could therefore be met. There was uncertainty but also optimism about the role that Modern Methods of Construction could play in increasing delivery. Respondents repeated an earlier point that the Councils could expedite the approvals process and ensure that infrastructure is front ended to avoid later deliverability issues. One developer felt that this should be a continuous, open, and proactive dialogue with all parties to contribute towards the delivery of new homes, emphasising that a lack of communication is often a major barrier to delivery rates. Brexit and Covid-19 were regarded as highly disruptive both to labour supply and supply chains, which could seriously hinder construction speed. These are therefore both potential issues for the emerging Local Plan, and respondents reported that both Brexit and Covid-19 had already had demonstrable impacts on delivery rates.

Ten key findings

1) The lead-in time data is broadly too optimistic in terms of respondents' experiences with the planning process
2) Pre-application advice needs to be more detailed with much more responsive communication
3) The Councils require better resourcing to support delivery and provide the time for regular and detailed discussions throughout the planning process
4) Infrastructure provision should be front loaded to improve delivery rates and avoid problems at later juncture, such as at a reserved matters stage
5) Build-out rates are largely accurate, but some schemes also face significant barriers owing to infrastructure issues
6) Support for sites with multiple outlets would encourage competition and higher market absorption
7) View that windfall delivery is likely to fall owing to the updated Local Plan and the reduced availability of brownfield / infill sites
8) The high demand for specialist housing, particularly older person's housing, needs more robust support in the emerging Local Plan
9) Confidence that local housebuilders can significantly increase delivery compared to historic trends
10) Concern about the disruptive impacts of Brexit and the Covid-19 Pandemic on delivery rates owing to labour shortages and supply chain disruptions.

Appendix 5 Workshop slides

05/03/2021

Planning & Development AECOM Imagine it. Delivered.

Greater Cambridge Local Plan Housing Delivery Study

Development Industry Workshop

Tuesday 15th December 2020

1

Introductions

- Simon Drummond-Hay MRICS ACIH, HDH Planning & Development Ltd
- David Carlisle MRTPI, AECOM
- Anthony Whitaker MRTPI, AECOM
- Angus McNeill Peel, AECOM
- Tim Fearn, AECOM

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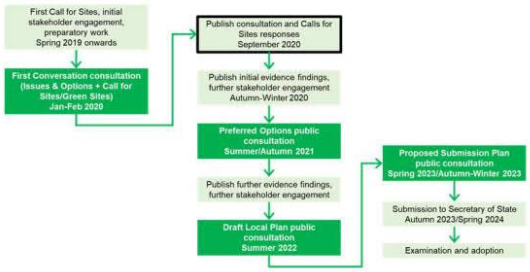
Agenda

- Purpose of the Study
- Summary of the survey responses
- Semi-structured discussion on: lead in times; planning processes; build out rates (including outlets); and specialist housing.

Process of Local Plan preparation



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Purpose of the workshop

- Housing Delivery Study
  - Purpose – advice on deliverability of spatial options and housing requirement options, trajectory and five-year housing land supply
  - Progress – surveys (September-October) and interim report (November)

- Purpose: to test the initial findings (survey and interim report), and probe some issues further (lead-in times, build-out rates, no. of outlets, completions per outlet)

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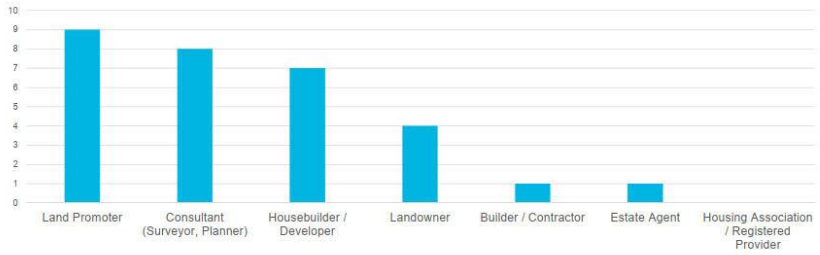
Development industry survey

- 16 responses, 5 of which were based in Cambridgeshire, 11 that work in the area
- Majority land promoters, consultants and housebuilders



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Lead-in time assumptions (in years) - Starting point…

		Outline submitted to first dwellings under construction	Outline approved to first dwellings under construction	RM submitted to first dwellings under construction	RM approved to first dwellings under construction	Full submitted to first dwellings under construction	Full approved to first dwellings under construction	PA submitted to first dwellings under construction	PA approved to first dwellings under construction
Cambridge	Non-strategic Sites					2.0 (2.1)	1.5 (1.3)	1.0 (0.9)	0.5 (0.6)
	All Sites			1.5 (1.7)	1.0 (1.0)				
South Cambridgeshire	Non-strategic Sites	3.5 (3.6)	2.0 (2.1)			2.0 (2.2)	1.0 (1.1)	1.0 (0.8)	0.5 (0.7)
	All Sites			1.5 (1.4)	1.0 (0.8)				

NOTE: All Sites = includes Strategic Sites, RM = reserved matters, PA = prior approval, and the numbers included in brackets are the actual lead-in times based on the data summarised in Figures

Typical assumptions:

Submission of OPA > Start ~ 3 years
OPA approved > Start ~ 2 years
Submission of RM > Start ~ 1.5 years
RM approved > Start ~ 1 year
Submission Full PP > Start ~ 2 years
Full PP approved > Start ~ 1 year

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Planning approval process questions

- Planning Performance Agreements
  - Do you use PPAs? How effective are they? During the plan-making process?
  - How could the Councils improve the pre-application process and what are your key recommendations?
- Statutory consultees
  - Do you agree with the survey comments on the role or statutory consultees in the decision-making process? Consultation with specific consultees at pre-app and keeping to consultation deadlines.
  - What are the key stages for communication during the planning process?
- S106 / CIL
  - What is your experience in negotiating s106 (here and elsewhere)?
- Reserved Matters
  - What is your experience of acquiring RMs? Were design guidance, masterplan, development brief or codes in place for your site(s) and in what ways did they help or hinder?
  - Pre-commencement conditions - are these proportionate? Have things improved?

How should the lead-in times data take account of the possible delays discussed?

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Plan-making questions

- Plan-making
  - What can be done during the plan-making process to reduce lead-in times?
  - Would you support the twin-tracking of allocations and applications (inc. hybrid)/s106 heads of terms?
- Allocation policies
  - Can the level of detail in the allocation policies and/or IDP help speed up delivery?
  - How prescriptive should the allocation policies be (certainty vs. flexibility)?
- Would you consider alternative routes to delivery? For example:
  - Local Development Orders
  - Support for Neighbourhood Plan allocations/Neighbourhood Development Orders
  - Growth, Renewal, Protect / NSIPs for new settlements – any obvious opportunities moving forward? E.g. permission in principle and wider utilisation of codes

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Lead-in time assumptions – survey responses (1)

- The lead-in time data is broadly too optimistic and does not account for the pre-planning period/withdrawn applications etc.
- Need to capture plan-making process and pre-application period from allocation to delivery
- No assumptions for outline permission on strategic sites (small sample size/affected by site-specific issues). Not representative of true lead-in times
- Pre-application advice needs to be more detailed with more responsive communication
- The Councils require better resourcing to support delivery and provide the time for regular and detailed discussions throughout the planning process

Do you agree with this?

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Lead-in times (years) work in progress - Too short, too long or about right?

Site Size	Allocation to submission	Submission to approval	Approval to first occupancy
Less than 50	1	1.5	2
50 - 99	1	1.5	2
100 - 999	1	4	1.5
1,000 – 1,499	2*	4.5	1.5
1,500 – 1,999	2*	5	1.5
2,000 plus	2*	5.5	1.5

** assumes a masterplan/development brief or similar*

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Delivery rates per outlet(s)
Too high, too low or about right?

Site Size	Outlets	Build-out per outlet MARKET ONLY
Less than 50	*1*	*10-30*
50 - 199	*1*	*30-50*
200 - 299	*1*	*30-90*
300 - 499	*2*	*60-120*
500 - 999	*3*	*Per Outlet: 30 to 125 dwellings Overall: 100 to 250 dwellings*
1,000 + each additional ?	*+1*	*30-50/outlet*
500 dwellings plus in an urban extension	*?*	*Per Outlet: 30 to 125 dwellings Overall: 100 to 250 dwellings*
New settlement approx. 5,000 dwellings	*3?*	*Per Outlet: 30 to 125 dwellings Overall: 160 to 250 dwellings*
Large New Settlement approx. 10,000 dwellings	*What is the optimal no. outlets?*	*Per Outlet: 30 to 125 dwellings Overall: 200 to 400 dwellings*

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Outlet assumptions

- No specific outlet assumptions currently applied by the Councils
- Respondents suggested 50dpa per outlet, but could go higher if more flats are planned
- Our research suggests 50dpa is reasonable for a high-demand area
- Survey respondents:
  - Sites should be in the range of 200-500 dwellings to have more than one outlet
  - Maximum number of outlets on a strategic site up to 6 (suggests ~300dpa)

- **Number of outlets**
  - *Do you agree with the assumptions?*
- **Completions per outlet**
  - *Do you agree with the assumptions?*

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Build-out rates – starting point

	Size	Peak dwellings per year	Average dwellings per year	Number of years of completions
Cambridge	10-49	40	12	1
	50-99	99	90	1
	100-199	150	82	2
South Cambridgeshire	10-49	39	15	1
	50-99	80	38	2
	100-199	90	60	3

- Strategic sites ~250dpa unless adjacent to other strategic site (in which case ~150dpa)
- One respondent suggested up to 400dpa average could be achieved for Sustainable Urban Extension to Cambridge.
- Evidence elsewhere in OxCam Arc suggests 250dpa average is appropriate over entire build out with higher delivery in peak years
- Public sector involvement in some of the largest sites has helped elsewhere
- Milton Keynes East Expansion Area (268 dpa), Cranbrook (286 dpa), and Emersons Green East (267 dpa)
- Cambourne delivered 4,240 dwellings over a 19-year period at an average of 223 dpa, ranging from 42 in the first year and 620 in year five.

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Volume housebuilder 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 Development	17,395	366	**48**	17,579	368	**48**	17,856	370	**48**	12,604	366	**34**
Persimmon	16,043	370	**43**	16,449	360	**46**	15,855	350	**45**	Not published	-	-
Taylor Wimpey	14,541	287	**51**	14,933	256	**58**	15,520	250	**62**	Not published	-	-
Bellway	9,644	230	**42**	10,307	247	**42**	10,892	268	**41**	Not published	-	-
Bovis/Vistry Group	3,645	92	**40**	3,759	87	**43**	3,867	128	**30**	Not published	-	-
Berkeley**	3,905	58	**67**	3,536	62	**57**	3,698	69	**54**	2,723	70	**39**
Countryside	3,389	47	**72**	4,295	53	**81**	5,733	56	**102**	Not published	-	-
Crest Nicholson	2,935	51	**58**	3,020	55	**55**	2,912	59	**49**	Not published	-	-
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**	Not published	-	-
Total	80,209	1,710	-	83,233	1,705	-	86,005	1,756	-	19,359	546	-
Average	-	-	**50**	-	-	**51**	-	-	**52**	-	-	**36**

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Summary of the survey responses (2)

Build-out rates:

1. Infrastructure provision should be front-loaded to improve delivery rates
2. Build-out rates are largely accurate, but some schemes also face significant barriers owing to infrastructure issues
3. Support for sites with multiple outlets would encourage competition and higher market absorption
4. Respondents were confident that local housebuilders can significantly increase delivery compared to historic trends to deliver 2,700 dwellings per annum

– Do you agree with this?

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Build-out questions

– **Competition and market absorption**
  - How many new settlements do you think could be delivered concurrently?
  - Market absorption and distance between sites a factor?
  - Could strategic-scale SUEs achieve higher than 250dpa?
  - Could the Council help to encourage a wider product range (direct delivery, CLT, co-housing, self-build) through policy and/or masterplans
  - Do you feel that local housebuilders/SMEs can increase delivery compared to historic figures?

– **Triggers/phasing of infrastructure**
  - How would you suggest the Councils enable the front loading of infrastructure and what role does the development community have in making this work?
  - What are the key infrastructure issues that impact on build-out rates on your sites?

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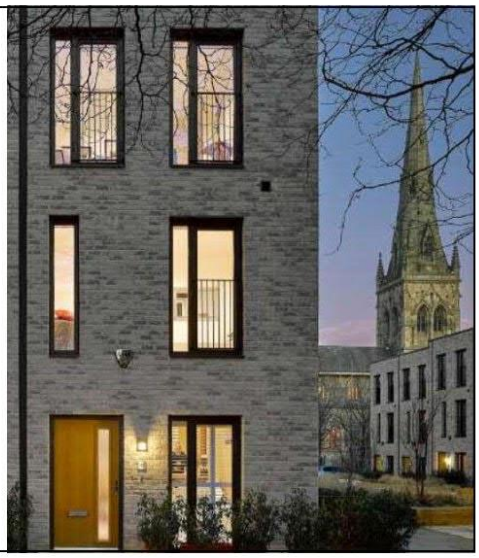

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Summary of the survey responses (3)

General factors:

1. The high demand for specialist housing, particularly older person's housing, needs more robust support in the emerging Local Plan
2. Windfall delivery is likely to fall owing to the updated Local Plan and the reduced availability of brownfield/infill sites
3. Concern about the disruptive impacts of Brexit and COVID-19 on delivery rates owing to labour shortages and supply chain disruptions

– Do you agree with this?

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Specialist Housing – Additional delivery? Too low, too high or about right?

Site Size	Site Threshold	Trigger	Typical scheme units	Build out (months)
Sheltered Housing	*750-1,000?*	*500?*	120	18
Extracare Housing	*750-1,000?*	*500?*	60	18
Student Housing	*750-1,000?*	*500?*	250	18
Build to Rent	*750-1,000?*	*500?*	120	24

1. What conditions are necessary to enable early and/or accelerated delivery for specialist housing products?
2. How should the emerging Local Plan support the high demand for specialist housing, particularly older person's housing?

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Appendix 6 Greater Cambridge Local Plan Workshops – Summary of Discussion

Overview

The following briefing note provides a summary of two workshops held on 14 and 15 December 2020. The workshops were run by AECOM and HDH Planning and Development to provide follow-up discussion of a housing delivery survey conducted by AECOM on behalf of Cambridge City Council and South Cambridgeshire District Council. The two councils are jointly preparing the emerging Greater Cambridge Local Plan.

This work corresponds to the support AECOM is providing Cambridge City Council and South Cambridgeshire District Council as they prepare the emerging Greater Cambridge Local Plan. This support includes a Housing Delivery Study to ensure that the projections for delivery in the Local Plan are robust and supported by a thorough evidence base.

A survey on housing delivery was sent out to local stakeholders to gather their opinions and feedback. The survey asked for commentary on lead-in times; build-out rates; sales rates and market absorption; windfall development; custom and self-build housing; specialist housing and housing tenure; and housing delivery and industry capacity.

Due to the level of response to the survey (16 respondents), workshops were held to invite commentary from a wider range of participants (including housing associations and registered providers, who were under-represented in the survey responses) and to expand on some of the initial findings of the survey. The workshops presented the findings of the survey and invited discussion from the participants on specific themes in order to inform the draft Housing Delivery Study.

Workshop participants

There were 24 participants across the two workshops, representing the following organisations: landowners. Registered Providers, Cambridge Investment Partnership (CIP), Volume Housebuilders, Property and Real Estate firms, land promoters, Greater Cambridge Shared Planning Service, Housing Associations, consultancies and specialist developers.

Lead-in times, pre-planning and Development Management processes

The discussion initially looked at the assumptions in the survey on lead-in times, and the responses which suggested that they were not representative of timescales on strategic sites since they did not factor in significant pre-application periods, particularly where this is linked to plan-making (i.e. on allocated sites). It then turned

to looking at the factors in the pre-planning and development management stages which could affect lead-in times.

Assumptions on lead-in times

Looking at the lead-in time assumptions, a volume housebuilder indicated that it would generally take approximately 18 months from outline approval to construction starting on sites, and a further year until sale of the first homes. For smaller urban brownfield sites, a specialist developer suggested that there is an average of 16 weeks from approval to commencement, although the time take to agree s106 obligations has added to this. Uncertainty over pre-commencement conditions can also add delay, particularly where these are not advised until after the decision has been taken, as opposed to being negotiated alongside the determination process.

It was suggested by a development consultancy that the analysis of lead-in times should make a clear differentiation between outline application, reserved matters and the full application, since each stage requires pre-application issues to be addressed. It should also be made clear that any assumption of “average” times would naturally mean that some schemes take considerably longer to implement, and the question was raised over whether the intention was to depict a worst-case scenario (which could result in 6-12 months being added to the assumption) or a true average, which would potentially require more sites to be allocated in order to ensure delivery meets plan targets. For the larger sites, it was generally felt that the assumptions may be on the optimistic side, although no firm responses were provided as to what might constitute a more realistic figure.

Statutory consultees, local authority responses and Planning Performance Agreements

A key theme emerging from the discussion was the level of resourcing and experience of the planning teams at both local and county level which have the potential to extend lead-in times. Statutory consultees providing responses close to or on the day of planned committee dates was highlighted as an issue by a number of participants, with two participants (a planning consultancy and land agent) noting particular issues with highways responses. This sometimes delays the determination process since addressing the comments is time-consuming and results in applications being moved to new committee dates.

It was noted that the increasing use of part-time technical specialists to respond to applications makes following up statutory consultee responses time-consuming and unpredictable. One Registered Provider suggested that resourcing within local authorities can lead to both an inconsistency of approach, as different officers take different views on some matters, and also to delays as less experienced officers are less confident in providing timely responses to relatively straightforward questions from developers. It would be helpful if officers could provide their own commentary on statutory consultee responses, rather than passing them on verbatim with no clear indication of what might be expected of the developer. One development consultancy suggested that a log of consultation responses and associated actions would also provide greater certainty and efficiency.

Linked to this was a discussion of PPAs, which arose in both workshops. It was suggested by several participants that they were not always as effective as they could

be and even where they were in place, they did not necessarily ensure schemes progressed according to the project plan. One volume housebuilder felt that this was a national issue, rather than specific to Greater Cambridge, but that they tend to work better in unitary authorities than in two-tier areas, and that they should be expanded to include the county if possible. A local developer suggested that PPAs could be more effective if used to fund a permanent member of staff within the LPA to manage a large scheme through to completion rather than being used to pay an external consultant who may leave the project, taking away knowledge and experience.

Decision-making and Section 106 agreements

The scheme of delegation in Greater Cambridge was identified as being risk-averse, with small schemes often requiring a committee date rather than being delegated to officers as in other areas (e.g. Bedfordshire), with consequential impacts on decision-making for larger applications. The pre-application and pre-decision paperwork requirements were also viewed as potentially more onerous by one of the Registered Providers.

Negotiation of s106 agreements following an approval, rather than concurrent with the decision-making process, also adds delay into the process. A specialist developer believed this to be down to resourcing in the councils' legal team which prevents draft agreements being scrutinised until the application has been determined, rather than disagreements over the planning obligations themselves, while one of the Registered Providers noted that variations to s106 agreements and the associated need to put them out to consultation have the potential to prolong lead-in times.

Lead-in times and Development Management processes key summary points

- The assumptions should look at a worst-case scenario, especially for larger sites.
- The Councils need more resourcing to reduce lead-in times.
- Statutory consultee responses can introduce significant delays when received late in the development management process.
- Planning Performance Agreements are not currently effective and require improvement.
- Section 106 negotiations should come much earlier in the planning process, rather than post-determination.

Plan-making

The effect of the plan-making process on housing delivery was discussed, looking at the various layers of policy which define what is expected on an allocated site, the level of detail contained within allocation policies, and the need for a joined-up approach which takes into account spatial, infrastructure and transport planning.

Layers of policy

The process of preparation and adoption of SPDs and Masterplans supporting the Local Plan was highlighted, since this can have a considerable impact on determination times and committee dates and can also result in additional work being required on an application. Where a site requires an adopted design code or masterplan, this can add several months to the project plan once committee cycles

are factored in. While it should be a 6-month end-to-end process, one of the major developers stated the general assumption is that it will take up to a year.

Even where PPAs are in place, the additional layer of policy can extend timetables considerably. If the allocation is to be supported by another layer of policy (e.g. an SPD or AAP), it was suggested that the allocation should be less detailed, although a number of participants felt it was better to avoid too many layers and the detail should be in the Local Plan where possible.

There is a risk that detail being moved between different layers of the plan (e.g. from allocation to masterplan or SPD) does not actually make a difference to the overall project timeline, but simply shifts when the work is required. However, it may be possible to streamline parts of the process to deliver marginal gains across the piece.

The potential changes outlined in the Planning White Paper could affect the plan, it was noted that, while other authorities have paused plan-making, Greater Cambridge are continuing to progress and may need to adjust the emerging plan at a more advanced stage.

Policy detail

Some developers, particularly of larger sites, stated a preference for more detailed allocation policies in the Local Plan due to the increased certainty over the potential conditions attached to an application before it is approved. Others prefer less prescriptive policies since they provide flexibility which is often best handled by the developer rather than by council officers and can be addressed through the pre-application process. It was suggested by one site promoter that there should be a certain level of due diligence when preparing allocation policies, to flush out issues over land ownership/title which could create issues with the provision of infrastructure and ransom strips.

It was suggested by a planning consultancy that urban designers could try to impose too much prescriptive detail onto a site which is not always appropriate for an entire site (e.g. highway widths). Neighbourhood Plans were also viewed as being too prescriptive, although where this is the case one site promoter suggested that developers can often rely on the higher-tier plan to determine the allocation requirements.

Masterplans for strategic sites can create problems if one landowner changes their mind, since it can hold up delivery on the whole site or urban extension. They should provide sufficient flexibility so that other parts of the site can commence even if the site-wide masterplan has not been signed up to in full.

Where there is going to be a design review process, it needs to be considered right from the outset of the project. If only introduced at the end, it was highlighted by one development consultancy that there is a significant risk of the work carried out earlier in the process being undone as a result of the panel recommendations.

Consistency with other plans and strategies

There needs to be coordination between infrastructure providers and statutory bodies in the plan-making process so that the infrastructure requirements and transport planning associated with Local Plan allocations are known up-front, rather than being

addressed following the adoption of the Local Plan. This was noted as a particular concern by housebuilders working on large strategic sites.

Plan-making key summary points

- Flexible and less prescriptive policies can speed up lead-in times by allowing issues to be resolved through the pre-application process.
- Multiple layers of policy can add delays, particularly where masterplans and design codes need to be prepared and adopted.
- Design review, where required, should be considered from the outset to avoid derailing schemes at the advanced planning stages.
- A joined-up approach to spatial, infrastructure and transport planning is required when preparing allocations.

Build-out and sales rates

The survey made broad assumptions on build-out rates based on site size, number of outlets, and site type, and these assumptions were tested during the discussion to determine whether they were too conservative or optimistic. A range of factors affecting overall delivery at the construction stage were highlighted, suggesting that a more nuanced approach to the assumptions and to the range of sites allocated in the plan may be required in order to confidently predict build-out rates and maximise delivery.

Assumptions on build-out rates

Large developers suggested that delivery between 200-250 dpa is a reasonable estimate, but with the increased variety of housing products, including PRS and build-to-rent, there is the potential to increase build-out rates. The example of North East Cambridge, with its expectation of 400dpa was cited, and it was noted that this could not be achieved simply through the involvement of volume housebuilders – other types and tenures are required to build at these rates. While there is a limit to the number of volume builders who can operate on a single site, one of the planning consultancies noted that healthy competition between developers on sites can boost build-out rates, as at Trumpington.

The assumptions should take into account the build-out profile, rather than just the peak and the average to see how delivery progresses across the lifetime of a scheme, as well as the number of outlets by type of developer. It should also be made very clear in the study whether the assumptions refer to completions or sales. This would help address possible confusion over the number of market sales and total completions including affordable homes.

Location/accessibility

In a general context, sites which are better integrated with the existing settlement tend to pull demand away from other sites, so new settlements are less likely to be as attractive to buyers as urban extensions and will deliver more slowly. A specialist developer suggested the delivery study should take into account this variety in demand and its effect on build-out rates. It should also reflect the potential for urban extensions to deliver at higher densities which can increase delivery rates.

Sales rates and delivery rates are high on sites close to Cambridge, but less so in the new settlement areas due to the increased distance to employment areas. While it would be possible to create more employment land in new settlements, one specialist developer suggested this may not have the desired effect of attracting house buyers unless a major employer is involved, since Cambridge and its agglomeration benefits are key to sales in the city and its immediate surroundings. The type of business in an area will also have an effect on the attractiveness of a sites, with warehouse/distribution uses reducing values and demand while science parks and R&D tend to increase values.

Housing mix

While the councils should set the broad mix of affordable and market sale housing to be delivered on site, a major developer suggested that developers should determine the mix of private products on offer through each outlet, including price points on the sites, since they are more in tune with the market and know what will sell. A development consultancy noted that the standard method, while giving a clear target, has reduced clarity on housing mix, and there is less emphasis on a comprehensive SHMA. Local Plans need to be supported by a "mini-SHMA" or clear guidance to housebuilders on the local housing needs.

PRS is likely to be brought online in the early phases as it helps cash flow to fund later phases. One of the Registered Providers noted that PRS family housing does help build-out rates in new settlements, and it is being delivered alongside affordable sale products. The pent-up demand for self-build in the South Cambridgeshire area was also noted by a major developer, suggesting that this should also be considered in the housing mix.

Complexity and site size

Build-out rates vary considerably depending on the type of site, with greenfield sites being able to deliver much more quickly than complex brownfield sites in the urban area which require under crofts and basement parking. The diversity of sites needs to be captured within the study, and there needs to be an appropriate mix of sites, including small and medium sites, to ensure maximum delivery.

Allocating smaller sites will also provide more opportunity for Small and Medium Enterprise builder (SMEs) on land which does not appeal to volume housebuilders, and Home England's efforts to bring these types of sites onstream were welcomed by a planning consultancy. However, one site promoter suggested that the sums involved in bringing forward large sites and the current tax regime means that landowners often have no option but to work with volume housebuilders and master developers rather than SMEs.

Build-out rates key summary points

- The study should note the difference between completions and sales.
- Competition on strategic sites drives up delivery rates, as does having a broad range of housing types and tenures.
- Site location and access to services, and their link to demand, should be reflected when looking at delivery rates.

- Consideration of delivery rates should also reflect site complexity, size and density.
- Accelerated delivery rates depend on having a wide range of allocated sites.

Specialist Housing

Discussion on this theme tended to focus on the provision of specialist and older people's housing rather than student accommodation, despite the large student population in the plan area.

It was suggested by a specialist developer that specifying a broader range of products to be delivered on sites, e.g. specialist, care and older people's housing, can drive up delivery rates through the opening up of different markets. However, one promoter noted that consideration needs to be given to the fact that delivery of C2 accommodation can reduce the amount of affordable housing delivered on a site, and it should be treated separately rather than as an either/or option.

Specialist housing needs to have good access to services e.g. GPs, transport, retail. It can come forward on SUEs, but it is likely to be delivered later in the construction phasing, even if it runs alongside construction of other housing types. Registered providers stated that it tends to increase delivery on large sites, and it was suggested that on these sites delivering it alongside a community centre could provide an instant start for a new community. As with general housing, there needs to be an attractive market housing offer for older people, and it is often more appropriate on smaller and medium-sized sites well integrated with the existing settlement to allow people to remain in their local area.

Specialist housing key summary points

- Specialist housing can increase build-out rates where delivered alongside other types.
- Access to services and integration with existing communities is key to the success of specialist housing.
- Market housing needs to be considered, not just affordable tenures.

Miscellaneous

The impacts of the pandemic and the changes to working practices are likely to have an impact on demand and the types of houses required, as more people from London are moving to the area because they do not need to commute daily.

Build-out rates are also closely linked to the economic cycle which can have a significant impact on the number of sales. One development consultancy suggested that during economic peaks, sales rates can double, while conversely, they may be halved during a period of poor economic performance. This should be taken into account as part of the study, particularly as the pandemic and post-Brexit economy are likely to lead to a period of uncertainty which may affect the market in the short- to medium-term.

Appendix 7 Literature Review

Table 34: Summary of Secondary Sources

Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary
Housing Delivery on Strategic Sites. Research Study for Countryside Properties. (Colin Buchanan, December 2005)	5 years - All strategic sites 4.7 years - 1,000 to 1,999 dwellings 5 years - 2,000 to 2,999 dwellings 5.5 years - 3,000 dwellings or more – Based on Average time between application submission and first build year (Table 1) and trajectory assumptions (Table 7)	188 dpa - All strategic sites 101 dpa / 200 dpa - 1,000 to 1,999 dwellings 189 dpa / 250 dpa - 2,000 to 2,999 dwellings 330 dpa / 350 dpa - 3,000 dwellings or more Based on average of 36 strategic sites (Table 1) and trajectory assumptions (Table 7)	The contribution of strategic sites to housing stock is relatively constant whereas the contribution of small sites (less than 1,000 dwellings) fluctuates widely. This shows that strategic sites provide a small but important base contribution to the housing stock per annum. The overall rate of development that has historically been achieved from strategic sites overall is only as high as 200 dwellings per annum for individual sites. This is the average that has been achieved since 1980 in the region [East of England]. …sites of between 1,000 and 1,999 dwellings have made a limited contribution towards overall development and have also been developed at much slower rates than larger developments. This may be reflective of the scale of investment required to service larger developments and the ability of larger developments (comprising 2,000 of more dwellings) to offset these costs, or to secure better investment. **TABLE 1 : SUMMARY OF STRATEGIC SITES (BUILT OR UNDER CONSTRUCTION)** **All strategic sites** / **1,000 to 1,999 dwellings** / **2,000 to 2,999 dwellings** / **3,000 dwellings or more** **Annual rate** Average annual rate of development: 188 dwellings pa / 101 dwellings pa / 189 dwellings pa / 330 dwellings pa Fastest average annual rate: 677 / 324 / 500 / 677 Slowest average annual rate: 2 / 3 / 10 / 2 **Lag time** Average time between application submission and first build year: 5. years / 4.7 years / 5 years / 5.5 years Fastest lag time: 1 year / 1 year / 1 years / 3 years Slowest lag time: 13 years / 13 years / 11 years / 10 years **TABLE 7 : LAG TIME AND ANNUAL RATE TRAJECTORY ASSUMPTIONS** **Site Capacity** / **Lag Time** / **Annual Completion Rate** 1000-1999 dwellings / 4 years / 200 2000-2999 dwellings / 5 years / 250 3000 + dwellings / 5 years / 350
The Callcutt Review of housebuilding delivery (DCLG, November 2007)	25.1 months – pre-application process - 6 months – planning consent given (after planning application submitted) 10.2 months – consent in legally implementable form (after planning application submitted) 17.2 months – start of construction work (after planning application submitted) Based on 150+ units scheme Source: London Development Research, unpublished research, 2007 using data from sources including the GLA and Estates Gazette		It is almost an article of faith, universally held by housebuilders, that there is a limit of 35-50 homes which can be sold from one outlet in a single year; to achieve more rapid build-out requires prices to be reduced…rates of sale on apartments are higher…Building out at a faster rate does not yield sufficiently larger early returns to offset the cost of discounts plus other marketing and management costs. There is no theory behind this, but rather the housebuilders' observation and experience of how to make the best returns over time, balancing volume against price and risk. We believe that it partly reflects the capacity of local housing markets to absorb new supply, and partly the ability of local sales offices to process business. Overall, there is little reason to go for volume over price, particularly when the supply of fresh land is limited.

Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary
			Reflecting this rule of thumb, primary purchasers of major sites often split them up into smaller parcels for sale (or swap) to other builders. Each builder then opens a local office, with the result that build-out rates across the site as a whole are significantly increased, though not in full proportion to the number of outlets. The primary purchaser will obviously seek to obtain sufficient value now from selling or swapping land to offset future value forgone. We recommend that, in disposing of large sites for housing development, the Government and its agencies should wherever possible either break up a proportion of each site into smaller parcels for separate disposal or stipulate as a condition of sale that the primary purchaser should do so. This should both underpin faster build-out by creating opportunities for more sales outlets, and enable smaller housebuilders to compete for their share of supply.
Factors Affecting Housing Build-out Rates (CLG/ University of Glasgow, February 2008)		40 and 80/outlet/year - Most builders set target 59/outlet/year - Average optimal sales rate (Greenfield units) 67/outlet/year - Average optimal sales rate (Brownfield apartments) Based on Table 4: Imputed Annual Optimal Sales Rates (sample of 18 survey responses)	Over what distance does 'competitor surveillance' of rival developments extend? We asked the 18 housebuilders surveyed nationally to specify the typical distance in miles to what they would normally consider the furthest likely competitor for seven different types of development. The results are set out in Table 9, which shows a clear distinction between urban and greenfield sites. It is apparent that within cities, housebuilders generally see potential competition as contained within a distance of two to four miles as compared with six to eight at greenfield locations. In both cases, this suggests that housebuilders may define local housing markets more narrowly than in previous research.

Table 9: Perceived Competition Limits for Individual Developments

Development Type	*Miles*	
	Mean	*SD*
Apartments in outer London	2.40	2.79
Apartments in outer London	3.88	3.48
Apartments in major provincial city centres	2.73	2.48
Apartments within major provincial cities but beyond the city centre	3.37	2.54
Houses on greenfield sites on the edge of major provincial cities	6.00	3.96
Houses on greenfield sites on the edge of small and medium-sized towns	5.62	2.78
Houses on greenfield sites in mainly rural areas	7.97	4.09

Within this distance, developers keep a continuous watch on potentially competing sites to ensure that their own developments are advantageously placed in the local market. All 18 housebuilders collected data on three important aspects of rival developments, namely:

- Total house/unit production
- Subdivision by house/unit type
- Selling prices

Where land is in short supply and competition between developers is intense, housebuilders must assume the highest possible sale prices in order to make winning bids for land. Such bids are viable only because the release of land is restricted in aggregate terms by the planning system, while the release of houses is managed on a site-by-site

Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary
			basis by builders themselves to achieve the target sales rates underpinning earlier bids for land. Government policy and industry practice have thus combined to encourage developer caution about the ability of local housing markets to 'absorb' new-build supply. This finds expression in unambitious build-out rates. Developers with cautious build-rate assumptions will benefit from an advantage in terms of the price they can offer landowners assuming that house prices are rising faster than construction costs and the cost of borrowing. If housing demand changes after the point of site acquisition, most developers are generally reluctant to alter their planned production rates. Whether demand rises or falls, most prefer to alter prices or incentives. Companies generally see production rates as a marginal factor that cannot be varied very far from what was originally planned. The typical strategy of most companies who participated in the research was to aim for a build and sales rate of about one unit per week on greenfield sites and slightly higher than this on brownfield sites. Although this confirms anecdotal evidence, it should certainly not be taken as a 'natural build-out rate'. Rather it reflects the particular institutional structure of the British housebuilding industry in which fierce competition for land then requires controlled and phased release of new development to ensure that the ambitious development values necessary to capture land in the first place are actually achieved when new homes are eventually sold. If local planning authorities were deliberately to allocate a range of housing sites, some large and some small, this would help accelerate sales and production by creating more outlets, even for the same housing numbers…However, such a policy will be effective only where careful thought is given to allocate sites that appeal to different sub-markets, rather than merely replicate the same product at another location.
Homebuilding in the UK. A market study. (Office for Fair Trading, September 2008)	-	-	Build out rates, or absorption rates as they are known, are dictated by local market conditions and not by the maximum technical speed at which homes can be built. Homebuilders deliver new homes as fast as they can sell them, not as fast as they can build them. ...taking land through the planning system can take many years, so rapidly expanding homebuilders will often merge with other homebuilders to gain access to a greater range of sites. Acquisition of a greater number of sites becomes a critical part of these fast growing homebuilders' expansion strategies. It is far easier to sell 100 homes a year from four different sites (because of the absorption rates on each site) than it is to sell 100 homes from a single site. Consequently, for a homebuilder looking to grow rapidly the key is to acquire more sites rather than expand production on the sites that it already has. This imperative drives many of the mergers and takeovers. We reviewed six OFT decisions made between 2001 and 2007 regarding mergers between homebuilders, all of which were approved. In most cases access to landbanks were cited as part of the rationale for the mergers…This increased merger activity leads to increased concentration, in particular among larger homebuilders.

Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary
			Small homebuilders and individuals building their own homes will build on smaller sites which the larger homebuilders will not take on. Without the smaller homebuilders and self-build some sites would simply remain undeveloped. The UK lags behind other countries in the number of self-build projects. In terms of ensuring that land which is already available for homebuilding is used efficiently and output maximised, it is important to maintain a vibrant small and self-build sector. Again with a view to maximising output, we would recommend that local authorities should consider the possibility that group self-build could deliver a healthy proportion of new housing. Local authorities should be encouraged to make publicly owned land available to an 'enabler' who will control the overall design of the site, divide it into suitable plots and plan necessary infrastructure allowing people building their own homes to develop these plots.
Beyond Eco-towns. Applying the Lessons from Europe. Report and Conclusions (PRP Architects Ltd, URBED and Design for Homes, October 2008)	-	-	Hammarby Sjöstad's rapid build-out rates are some ten times faster than in Greenwich Millennium Village, which is in a similar location. This highlights the importance of a strong masterplan that avoids over-dependence on the private sector and sales rates. The scheme is for 11,000 dwellings in an area of 200 hectares, with a tram extension providing the central spine to the 'fishbone' layout. While it took six years before the masterplan was submitted and approved, infrastructure went in earlier; the first phase was completed four years later, and five years after that the scheme was half way complete, a rate of some 550 homes a year or ten a week. All homes are linked to the municipality's district heating system, and there is a high quality 'water cycle' that recovers waste heat, and other useful products from sewage. We were particularly struck by the fact that build-out and occupation rates are much faster than in the UK, allowing communities to form and mature over a relatively short time. For example, in Kronsberg, it has been possible to complete 1,000 homes a year and in Hammarby, over 800, whereas in Britain, volume housebuilders are only able to sell one house a week from an individual site, an issue that the Callcutt Review thought required further investigation. There is a much larger private rented market and intermediate innovations, like cooperative housing, which reduces the development risk and enables communities to grow much more rapidly (hence allowing households to try out an area before committing themselves to purchasing a house).
Notes on Build out rates from Strategic Sites (Homes & Communities Agency, July 2013)	-	150-300 dpa - Smaller strategic sites (<4,000 units) 300-500 dpa - Very largest sites (>4,000 units) 30/outlet/year - Weak market 40-50/outlet/year - Strong market 185.12 dpa - average taken from the Example Site Specific Housing Completions 1996/97 – 2011/12	For well-established sites in strong areas this could get as high as 10-15 [outlets]. Some of the larger national builders can even operate more than one outlet off a single site, and running these as entirely separate construction and sales outlets under different brands or aimed at different market segments. As the number of separate sales outlets grow, the overall build rate will increase. However, doubling the size, the number of outlets or the number of developers may not directly lead to a doubling of the build rate. Ultimately, there will be a finite number of purchasers able and willing to purchase properties in any particular geographic location irrespective of the degree of range and choice of product that can be made available.

Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary
A Report Into the Delivery of Urban Extensions. On Behalf of Gladman Developments Limited (Hourigan Connolly, February 2014)	8 year period should be allowed for from the preparation of an outline/in principle planning application to the delivery of homes.	30-35/outlet	The provision of off-site infrastructure is a major hindrance to the delivery of houses from urban extensions. Many of the sites reviewed have not progressed (or have taken many years to progress) due to the impact the requirement to provide off-site infrastructure work has on scheme viability. The major impacts on timescales derive from the time taken to promote urban extensions through the plan making process, the time taken to prepare, submit and consider planning applications and the associated legal agreements relation to planning obligations, land ownership issues and off-site requirements.
Urban Extensions. Assessment of Delivery Rates. Report to Barratt Homes (Savills, October 2014)	>4 years – urban extension site starts construction on the first phase of housing more than four years after the submission of an outline application. <3 years - considering only sites coming forward since 2010, the average time taken to start on site drops to under three years after the submission of an outline application. 6.5 years - >3,000 unit sites 4 – 5 years - <3,000 units sites	60 dpa - first year of construction 100-120 dpa - in subsequent years	We are aware of many urban extensions in the south of England where recent delivery rates have been substantially in excess of 120 units per annum. The study indicates that, whilst many urban extensions have taken longer than four years to progress from outline application to a start on site, it appears that these timeframes have compressed more recently, to less than three years on average. This suggests that, if pre-application timeframes can be accelerated, it has become more likely that these sites can start to deliver housing within the lifetime of a five year housing land supply plan. A recurring hindrance to quick progress is the provision of infrastructure. This tends to slow down the delivery of urban extensions at two key points, firstly in agreeing the Section 106, and secondly between approval of reserved matters and starting on the first housing units…The timing of the infrastructure works is also key. Where is it planned to be delivered in line with the phasing of housing delivery, the potential for problems is limited…However, if the infrastructure works are not phased alongside the housing delivery, it can pose problems. There is however some indication that sites are more likely to progress quickly through the system in local authorities with high housing growth. Plotting the total time taken for construction to begin from the submission of an outline application against the increase in dwelling stock in each local authority over the last decade shows rapid progression of sites of over 3000 units in the established growth areas of Milton Keynes and Corby. In these two local authorities, which have respectively seen a 16% and 18% growth in dwellings since 2004, construction began within three years of an outline application being submitted. Conversely in the local authorities which have seen less than 10% growth, all but two of the 3000+ unit sites took longer than the 5 year average. The rapid progress of these sites through the planning process in local authorities which were already delivering high numbers of new dwellings suggests that the appetite for development and resource for dealing with major applications within the local authority plays just as important role in bringing forward urban extensions as the characteristics of the site itself. Corby and Milton Keynes were both recipients of funding through the 2003 Sustainable Communities Plan, which included grants totalling £350 million across the country for Planning Delivery, enabling them to progress major development sites more rapidly. There is no overall trend of higher levels of delivery on the larger sites. There are very high rates on Eastern Development Area at Milton Keynes (capacity 4,000 units) where 791 units were delivered after three years of construction. This is in an established growth

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			area, and was associated with high levels of competition between multiple developers on site.
The Lyons Housing Review. Mobilising across the nation to build the homes our children need (2014)	-	-	History tells us that a programme of Garden Cities could bring about a step change in housing supply. The New Towns programme that began in 1946 was by 1952 delivering around 10,000 homes per year and reached 20,000 units per year in 1976. This was, however, across a dozen towns spread across England. These settlements were overwhelmingly focused on supplying social housing for rent which made up between 69% and 97% of the new homes provided. This review concludes that we will need to set an ambition of broadly equalling the 1946 programme's achievements. And we should aim for a programme that will produce peak volumes of some 20,000 units per year over a 20 year timescale…We argue that applying Garden City principles to a wider range of large scale developments of between 5,000 and 15,000 homes, including extending urban areas through Garden Suburbs and reshaping existing cities and towns, will result in a far larger number of successful and attractive new developments. The number of homes built by the house building industry has declined significantly over the last 40 years. That contraction is a pattern that has been maintained over three economic cycles with the peak output of each cycle lower than the one before and the situation has been further exacerbated over recent years. This contraction is underpinned by three factors: the house building industry is susceptible to recessionary forces and cyclical fluctuations in the housing market; the number of small and medium sized firms building new homes has decreased; and mergers designed to increase access to land have led to a reduction in the number of homes being built than would otherwise have been the case without the merger. A further way of improving the financial security and sustainability of the SME business model in house building is to make it easier for firms to access contracts for building procured or enabled by the public sector. The Delivery Partner Panel model, as used by the HCA and the Greater London Authority, is one way of doing this. Under this approach, the public sector body establishes a framework panel of prequalified housing developers, which will then be used to speed the construction and development of homes on land owned by public sector bodies. The DPP can be used to procure a developer to take responsibility for all stages of the development process from obtaining planning permission, through design and construction, to marketing and sales. The DPP also enables early engagement with the private sector in the process of developing a site, helping to develop a better sense of what can be delivered and how to do it most effectively. Evidence submitted to the review suggests that there is significant scope to simplify some of the processes associated with the DPP model to make it accessible to a wider range of partners. That simplification would be particularly appropriate at local level, where it could offer councils an effective way of improving SME access to public land and the opportunities it brings. Another way to translate housing demand into new building without relying on conventional volume house builders is represented by the increasingly local movement for self-built and custom-built homes. More than 12,000 homes per annum of this type were constructed over the period 2001-2007, though this fell to 7,500 homes in 2013. Under the self-build model, individuals acquire their own site and arrange for the design and building of a

Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary
			house themselves. Custom-build relies on an intermediary acquiring land and managing construction, but offers individuals the chance to tailor the house to their own requirements from a menu, possibly including taking full responsibility for the final fit-out. These models are common in several European jurisdictions including France, Germany and the Netherlands, according to the evidence the review was given, with 5,000 new homes built though member-run “building groups” in the city of Berlin alone over the last five years. Almere in the Netherlands has seen some 4,000 homes commissioned or built by residents in the last ten years with the original masterplan evolving as the result of continuing dialogue with residents. For this to happen, however, there are three preconditions. First, land must be brought forward in plans for self- and custom-building in a way that allows for the kind of broad outline permissions usual in the Dutch and German models to be granted. This should be a consideration for local authorities in acting as master developer on assembled sites. Secondly, land needs to be made affordable upfront; this argues strongly for self- and custom-build to be made a priority use for publicly owned land where land can be invested in shared ownership and the recognition of social value can be more easily adopted. A more active role for local authorities in land assembly and facilitating partnerships and the Housing Growth Areas and New Homes Corporations proposed by the review will have an important role to play in enabling non-traditional developers and custom builders to join the market by increasing the provision of sites not being provided by other developers. Potential for offsite construction…Laing O’Rourke has already invested substantially in establishing a production line for building homes using components – with 70% of the materials manufactured off-site and transported to the development for assembly. This delivery method can achieve very quick build-out rates. For example, working in partnership with Barking and Dagenham Council, Laing O’Rourke oversaw the building of 477 homes in nine months, with 50% of the development delivered using this off-site approach. Although initial lead times can take slightly longer with an off-site method, given the need to collaborate extensively in the design phase, Laing O’Rourke estimates that overall a minimum 30% reduction in programme time is achieved in comparison with traditional build methods.
Sutton Coldfield Green Belt sites, Phase 2 Report of Study (Peter Brett Associates, HDH Planning & Development, June 2014)	-	-	In this section we outline some features of the current market which are of relevance to this study, including some aspects of original research undertaken by Simon Drummond-Hay of HDH Development & Planning. • In the pre-recessionary period (i.e. pre-2008) there were around 7,000 outlets nationally of which 4,000 were sites of over three dwellings. In 2006 these outlets produced 2.7 units a month on average; • In the post-recessionary period (around 2010-11) there were about 3,200 outlets nationally, producing 2.2 units a month on average; • In 2014 there are 6,000 outlets nationally, producing 2.5 units a month on average; • In 1988 there were 12,000 builders nationally building up to 100 units pa plus 250 regional and 13 national housebuilders; • By 2010 this had reduced to 2,800 builders nationally, building up to 100 units pa plus 85 regional and 9 national housebuilders;

Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary
			• Generally the national total housing stock increases by 0.53% per year. • In the pre-recessionary period about 45% of houses were delivered on small sites, now it is just 10% nationally. In part this is due to funding constraints for small developers (and the disappearance of many of them, as noted above); • Since April 2013 37% of new homes sales nationally have been assisted by the Help To Buy scheme; and • Pre April 2013 21% were assisted under HomeBuy / NewBuy. In an attempt to inform the phasing and number of outlets, we have considered development in and around two towns that are growing rapidly, those being Milton Keynes and Swindon. In and around Swindon, in early 2014, there were 15 active outlets. Swindon's delivery rate is about 610 units pa, of which approximately 50% were from smaller sites, which equates to circa 300 units or 20 units per outlet pa. It was notable that where a developer had more than one active outlet they are geographically separate and quite different in character. Whilst the physical product in terms of buildings is not necessarily very different, the schemes are. A broadly comparable situation prevailed in Milton Keynes where there were 28 outlets and a similar conclusion could be drawn – although in Milton Keynes there is a greater diversity of products being offered by developers. Milton Keynes' delivery is about 1500 units pa, of which approximately 25% were from smaller sites which leaves 1,125 or so from 28 main outlets, or circa 40 per main outlet. What conclusions can we draw from the HDH research, of relevance to the Sutton Coldfield situation? • In terms of competition, the market is likely to view all the potential outlets identified as being in competition with each other, because they are within the distances identified in Table 2 above. Indeed, Options B & C are immediately adjacent, separated only by roads or natural features and hence would be directly competitive; and • The provision of more than 25% of output from the main outlets is limited to the exceptional case of Milton Keynes, where strategic growth was planned for many years through the New Town Development Corporation and special delivery mechanisms still exist. Without such mechanisms in place, reliance on significant output from main outlets should therefore be guarded against.
Responding to market demand; understanding private housing supply (HBF, August 2015)	-	-	Two laws of private home building are relevant to the following discussion: • First, private housing production is sales led; • Second, all else being equal, sales are a function of the number of sales outlets. The first law means that private home builders can only build if they have funded customers to sell to. These can include owner occupiers, small-scale private investors, corporate or institutional investors, affordable housing providers such as housing associations (e.g. for S106 units), custom builders, local or central government. Sales may be ordinary, plot-by—plot market sales, or they can be bulk sales, such as to a housing association or a large investor.

Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary
			The second law means that market sales are a function of the number of sales outlets, and not just the number of sites (a large site can have more than one sales outlet) or the total area of permissioned land. All else being equal, we would expect more market sales (and production) over any given period from 10 sites of 100 units than from 2 sites of 500 units or one site of 1000 units. Sales from a single outlet will of course be influenced by external factors: e.g. sales may rise because the housing market has become more buoyant, or because the Government has introduced a new scheme such as Help to Buy Equity Loan. However ”all else being equal” — i.e. putting aside such external influences over which the home builder has little or no control - the rate of ordinary market sales per outlet per time period will be dependent on local market conditions, often referred to as the local market’s absorption capacity. This will be a function of the size of the local market and types of demand, the types of products offered by the home builder and their prices in relation to local demand, the number of new home competitors, etc. Bulk sales will be driven by different influences, such as the requirements of a S106 agreement or an investor’s requirements. Therefore the second law of home building means that if a home builder wishes to increase annual sales and production by, say, 10%, all else being equal the company will require roughly 10% more sales outlets. In other words, assuming no change in external influences, a house builder cannot simply decide to build and sell 10% more homes from the company’s existing sales outlets. A frequent accusation is that house builders control the rate of sales and production on a site ”to protect their profit margin”. This is quite true, but not for any sinister reason. House builders are price takers, in that the prices they can charge on a site will be determined by prices in the local market. If a house builder tried to factor lower prices than in the local market into their land purchase bid they would not be able to compete against other bidders factoring in local market prices. Once a site is purchased, the land value becomes a fixed cost and there is very little an efficient builder can do to cut other costs during production (e.g. build, infrastructure, fees, etc.). Therefore the only flexible element on a site already under production is the profit margin. Assuming constant market conditions, if the house builder were to cut sales prices, more homes could be sold. However the drop in revenue from lower sales prices would probably have to be absorbed by a lower profit margin. If this were done persistently, the company would go out of business. So protecting profit margins is simply another way of saying that companies must be able to stay in business. However the second law needs to be qualified, in that beyond a certain rate of sales and production other constraints will kick in. Depending on the type of building (houses, flats in small blocks, flats in large blocks, etc.), at some point building and site capacity constraints will limit the house builder’s ability to increase production on a site (e.g. the number of trades working on a site, transport logistics, etc). If this happens before the site’s sales potential has been exhausted, it will limit the rate of sales. In addition, most mortgage offers are for six months. Therefore a house builder will find it difficult to sell properties scheduled for physical completion much beyond six months to customers requiring a mortgage as buyers’ mortgage offers will expire before legal completions can take place.

Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary
			The HtB scheme imposes a similar constraint: the HCA allows no more than six months between exchange of contracts and legal completion, which means buyers cannot exchange contracts on properties scheduled for physical completion beyond six months. On large sites, home builders may open multiple outlets, or sell phases to competitors who open extra outlets, so the number of sales from the site can be increased. The different outlets will enable companies to offer different product ranges and brands. However there are likely to be diminishing returns, so that beyond perhaps four or five outlets, sales per outlet will decline. So put simply, increasing aggregate private housing supply, all else being equal, requires (a) many more sales outlets, (b) allowing home builders to offer the widest possible range of products to meet the broadest range of market and other demand, and (c) ensuring the widest possible range of housing suppliers, of all sizes, have access to viable, permissioned land. All three require the widest possible range of sites, by size and location. Private house building is 'sales led': i.e. house builders can only build homes if they have funded buyers. Under any given set of external influences, sales per month or year on a site will be linked to the capacity of the local market to absorb new homes at prevailing local market prices. Therefore increasing supply, all else being equal, requires more sales outlets, which broadly speaking means more housing sites (although large sites may have a number of sales outlets). Because of local market absorption capacities, we would normally expect a higher rate of sales — and therefore production — over any given period from 20 sites of 50 units than from 10 sites of 100 units or one site of 1,000 units. In addition, the range of products a house builder can provide on a site, and therefore the range of market demand it can meet, will be linked to the nature size and location of a site and its relationship with the local market. Broadly speaking, the more sites on which companies are selling, by size and location, the wider the range of products and brands the industry can offer, and therefore the greater the aggregate rates of sale and production in an area. Finally, the range of available sites, by size and location, will determine the breadth of suppliers and brands able to acquire suitable sites. The plan-led system has tended to result in some local authorities concentrating development on a few large sites and severely restricting development elsewhere. As well as restricting the rates of sales and production, and restricting the range of products house builders can offer and the range of market needs they can meet, this also restricts the supply of smaller sites which are the lifeblood of SME house builders. To maximise supply from local housing markets, local plans should be required to provide the widest possible range of sites, by size and location, so that house builders can offer the

Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary
			widest possible range of products and brands to meet the full range of demand, and so that suppliers of all sizes, including SMEs, can find suitable sites. Custom build offers opportunities to expand housing supply, although we need to be realistic about the scale of any likely increase. In particular, it offers business opportunities for SMEs home builders. House builders frequently boost the build-out rate of large sites by opening more than one sales outlet, or by selling phases of the site to other developers who then open additional sales outlets. A site of 1,000 units with, say, three sales outlets will achieve significantly more sales per month or year than a single sales outlet. There may be other opportunities to increase delivery rates on large sites without damaging the main developer's financial interests. It may be possible to sell a later phase to an SME who may offer a product that larger developers may not offer, such as custom build. Private AH and more flexible local authority AH demands could boost the number and rate of delivery of AH on large sites. Similarly, as noted above, it may be possible for later phases of a large site, or a large regeneration site, to offer opportunities for institutional investors in the PRS. Revised HCA public-sector land disposal processes will, we hope, reduce bidding costs and complexity. Increased land supply following reforms to the NPPF mean public-sector site disposals must compete against private sector site sales. 'Buy now pay later' disposals could be particularly valuable in boosting supply. Joint ventures with public-sector land owners, by reducing the upfront capital requirements and changing the return on capital calculation, could allow companies to expand supply. Disposals of small sites suitable for SMEs need to be as straight forward and as possible, avoiding excessive bidding costs.
Outer London Commission. Sixth Report. Removing the Barriers to Housing Delivery (OLC, March 2016)	-	-	Challenges associated with infrastructure delivery, land assembly and remediation, development finance and cash flow constraints, together with house builders' appetite for risk can all impact the speed of housing delivery on large sites, post planning approval. The established business model operated by developers and house builders also requires them to maintain sales values and overall profit in order to satisfy shareholders and hedge against market risk. This has an impact on the build out rates which can be assumed on approved sites. Market absorption and building out large sites - The speed of house building on private sector owned sites will generally correspond to the rate at which developers believe they can sell units within a local housing market at optimal value. Selling units requires sufficiently funded buyers in a particular location and favourable mortgage lending environment. In addition, whilst substantial profits can be made during buoyant market conditions, the house building industry is prone to downturns, which can result in risk averse behaviour on the part of developers. For these reasons, developers are often concerned that an over-supply of market sale homes in an area in relation to funded demand might result in lower prices through supply and demand economics.

Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary
			Hence, despite the considerable need for housing in London, developers of very large sites are unlikely to build homes as quickly as is 'technically' possible on very large sites, without guaranteed sales demand. Instead, developers will typically be cautious to avoid so-called 'market absorption' problems and will therefore generally seek to manage the rate of delivery to match their expectations for sales demand and capital growth. Expecting developers to substantially increase build out rates beyond current rates of production may not be commercially realistic, without any additional incentive or compulsion. This is because to do this on a very large site would mean increased exposure to risk (e.g. market cycles); front loading build costs (rather than phasing them over a number of years); and could result in lower sales values. This increased exposure to risk may not be palatable to company shareholders. This poses a significant challenge to the way the current plan-led system operates and how London should seek to manage land use change and the overall planning pipeline in the future, whilst also ensuring sustainable development. Indeed, submissions to the Commission from outer London boroughs confirmed that these developer practices are embedded and considered to be fundamental to the current house building industry. Whilst issues of market absorption would appear to be counter-intuitive in the context of rapidly increasing house prices in London, there may be a number of reasons why developers are unlikely to build out consents faster. Selling large numbers of new build homes on a single site at the same time can be challenging and can be affected by a number of potentially unstable factors including bank lending practices, the availability of mortgage finance, income levels and the regulatory environment in terms of buy-to-let and overseas investment. The Help to Buy equity loan scheme has been expanded in London and is intended to play a key role in boosting funded demand for new build homes. However, current Treasury proposals to apply a 3% surcharge on stamp duty for buy to lets and second homes may affect demand for new build properties. Currently, over half of all new build homes in London are purchased by buy to let investors. Banks do not generally offer mortgages more than six months before completion, which may also impact the speed of housing delivery and lead to a reliance to some extent on overseas investment to secure pre-sales. A proportion of off plan sales are often a precondition for bank lending. Although some areas of the London's housing market are especially buoyant and have experienced strong demand from overseas investment, other locations outside 'prime London' may be less buoyant and not as influenced by overseas investment. Similarly, Government's proposals for starter homes – which aim to increase home ownership opportunities for first time buyers (under the age of 40) - may have the unintended consequence of reducing demand for open market one and two bed products on the same site or area49. The requirement for starter homes may also reduce income from s106 deals with housing associations, which can provide an important source of early cash flow for developers through pre-sales. Though the potential impact of these measures on build out rates and market absorption issues in London is, at present, uncertain, these factors underline the inherent uncertainty that is associated with housing development.

Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary
Spotlight Development: The Value of Placemaking (Savills, 2016)	-	180 dpa – The additional infrastructure spend (an extra £15K per unit) is assumed to be spent as follows: 60% upfront investment then 10% every fifth of the development built out.	When it comes to spending on placemaking, some key conditions stand out: the strength of the local market relative to connected markets and therefore the potential to increase sales values and sales rates through extra investment. At the simplest level, it [the Savills land value model] shows that spending an extra 50% on placemaking, in markets where this leads to a higher sales value and faster sales rate, can boost the land value by around 25%, depending on required rates of return. A key feature highlighted by our modelling is that investment in place releases the potential for higher sales rates and sales values. This is particularly the case in areas of high demand where buyers can be drawn from strong markets nearby. Therefore, the uplift in sales values can only be achieved if there is investment in place to make it more appealing. The sooner the investment is made, the sooner the uplift in sales values can be achieved which is reflected in the land value. Conversely, investing later decreases the potential. Our model shows that for the legacy scenario the land value decreases by 26% if the majority of the extra investment is made 40% of the way through the build out rather than at the start. Investing more upfront however, increases the peak debt. In our model the peak debt is 56% greater if the majority of the investment is made upfront rather than later in the build. The ability to accommodate this level of debt is necessary to achieve the higher land values discussed above. Amongst the examples we have looked at where placemaking has been successful, some sites have seen strong increases in sales rates, others have seen strong increases in sales values or elements of both. In Poundbury, the urban extension to Dorchester in Dorset, new build values are up to 29% higher than on other new build schemes in the area on a type for type basis in the last year. At Brooklands in Milton Keynes the highest sales rates over the last three years have been nearly double (91% higher) that of other nearby developments such as Oakgrove and Middleton. In this legacy scenario, we have assumed that sales values reach 20% above the basic scenario to £300 per sq ft and that the take up rate is 50% higher at 180 homes per year across all tenures, as a result of opening up new markets for the scheme. ..where land is paid for over a period of time, there may be more financial capacity to invest in place and achieve better returns in the long term. There is therefore an incentive for the landowner to take a longer term view and maintain ownership of the land to benefit from the additional investment. This can be achieved by entering into a joint venture (JV) or development licence with a master developer.

Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary
			Land value is increased with faster sales rates because higher levels of income are achieved sooner and the development is completed faster. As a result, the period until the development breaks even is shortened and the finance costs are reduced. This benefits the various partners that may have invested in the scheme, including the public sector. Hence public bodies putting in the land, receive their back ended returns sooner and finance invested to support upfront costs of infrastructure can be repaid earlier, returning to the public purse. Developers building large urban extensions are not just selling houses, they are selling a vision of the future. Putting the site on the map as a destination with a character of its own is crucial to attract demand, particularly if the aim is to draw more affluent buyers from further afield. Early marketing, PR, social media and community engagement all have a part to play in shaping that vision in the public's imagination, gaining support for the development, easing the planning process and ultimately boosting values once homes go on sales. Urban & Civic's decision to invest in community engagement has played a large part in shaping perceptions of Alconbury Weald in Huntingdon, ultimately in supporting sales. The first homes, built by Hopkins, went on sale in April this year. Sales rates in the first two months were higher than anticipated - two per week compared to the average of one per week on an average outlet. Sales values on a per square foot level were 16% above that expected. Given that the scheme is still in it very early phases, we would anticipate further uplift. Heyford Park School At Heyford Park, a development of over 700 homes on a former US air force base in Bicester, rental uptake increased significantly in the lead up to the opening of Heyford Park Free School in 2013 as parents sought to ensure that they were in the right catchment for the new state school. The success of the school which is currently three times oversubscribed has driven new build sales rates with approximately a quarter of new buyers suggesting the school was the main reason they buy at the site. Overall, Dorchester, the master developer behind Heyford Park, has experienced sales price growth from £250 per sq ft to £340 per sq ft in the two years since it started building with 150 homes already completed and sold by the housebuilder on site. It has experienced a sales rate of two a week, selling to one in four visitors.
Start to Finish. How Quickly do Large-Scale Housing Sites Deliver? (NLP, November 2016)	3.9 years - the average lead in time for large sites prior to the submission of the first planning application 6.1 years - the average planning approval period of schemes of 2,000+ (5.3 – 6.9 years) ~5 years - the average for all large sites	~161 dpa - The annual average build-rate for the largest sites (of 2,000 or more units)	[N.B. relevant extracts from 'Start to Finish. What factors affect the build-out rates of large scale housing sites? Second Edition.' (Lichfield, February 2020), are included later in the appendix]

Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary

Table 3: Previous land use by size and average annual build out rate

	Site Size (dwellings)	Number of sites in this group	Average Annual Build-out Rate
Greenfield Sites	500-999	14	86
	1,000-1,499	9	122
	1,500-1,999	7	142
	2,000+	13	171
	Total/Average	**43**	**128**
Brownfield Sites	500-999	16	52
	1,000-1,499	3	73
	1,500-1,999	1	84
	2,000+	7	148
	Total/Average	**27**	**83**

Source: NLP analysis

What More Can Be Done To Build The Homes We Need? (IPPR, June, 2017)	-	-	The use of locally-led New Town Development Corporations announced by the government would help diversify the housing market. One of the huge advantages of this approach is being able to control the build out rate and ensure a range of housing providers are on site at any one time. Garden cities provide an opportunity to attract new entrants into house-building, by accessing government programmes such as the Build to Rent Fund, supporting SME house builders, and encouraging a greater contribution from the wider construction industry. Community co-housing and community land trusts are both models that could be incorporated in garden cities today. This is not a new idea. Letchworth and Welwyn Garden Cities both included co-partnership housing models, and this has been significant in providing a unique form of tenure, combining features of a tenant cooperative with a limited dividend company. Self and custom-build homes should also feature as an important part of the housing mix in new garden cities, and land should be designed for this purpose; potentially as serviced plots, for example. The white paper supports custom-build homes, stating that government will provide 'greater access to land and finance, giving more people more choice over the design of their home' (DCLG 2017b). Self-build rates in the UK currently lag behind those in Europe, where the model is flourishing. A 2017 House of Commons Library briefing highlights the scale of the gap between the UK and the rest of Europe, with self and custom-build in the UK accounting for 'around 7–10 per cent of new builds while in Austria 80 per cent of housing completions are self-build; in France the figure is nearer 60 per cent' (HoC 2017). Barriers identified in the UK include access to land, availability of

Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary
			finance, the complexity of planning and other regulations. However, new garden cities provide a tremendous opportunity to develop self or custom build housing at scale in Britain…Private rented homes will also be an important component of the housing offer in new garden cities.
The Role of Land Pipelines In The UK Housebuilding Process (Chamberlain Walker Economics, September 2017)	0.5 to 0.8 years - Planning application to planning consent 1.7 years (21 months) - Planning consent to construction start	-	Previous DCLG estimates suggest that 10% to 20% of planning permissions don't make it to a start because they lapse (i.e. expire), with a further 15% to 20% re-engineered as a fresh application. This means that the permissioned land bank needs to be much bigger than the permissioned pipeline of 4 years to account for those consents that don't make it through. Lapses can increase the required land bank significantly. The new data, together with corresponding completions data, imply a permissioned land bank in England of 5.4 years' worth of output currently. This is broadly consistent with the modelling presented in this report that demonstrates a permissioned land bank of 5.7 years is needed for a 'post-planning permission' development pipeline of 4 years with a 20% lapse rate and 5% p.a. completions growth. The modelling demonstrates that a stock of 1.25 million planning permissions (1 million detailed-) would be needed for 250,000 home completions a year in the 'zero growth' steady state. This compares to a stock of around 0.8 million planning permissions (0.7 million detailed-) currently. That's a shortfall of around 450,000 planning permissions. Relative to their level of completions, the top three UK builders (Barratt, Persimmon and Taylor Wimpey) have smaller land banks than everyone else, with an average permissioned land bank of 5.3 years' worth of current output, compared to 5.5 years for the rest of the sector (5.4 years is the average). The top three UK builders' implementable land bank is only 3.3 years' worth of output. This reflects their fast-asset-churn, return on capital business models. 55% of all planning permissions in England are not held by builders at all. 87% of outline planning permissions are not held by builders. Compared to other applicants, builders: (a) hold a far richer concentration of detailed planning permissions within their consented land bank (94%) and very few outline-planning permissions (6%); (b) are more likely to have started construction on their detailed planning permissions (60% likelihood); and (c) have far fewer stalled sites (<3%).
Independent Review of Build Out Rates. Annexes. Annex A Build out rates (Rt Hon Sir Oliver Letwin MP, June 2018)[11]	>4-5 years - from application to first start (of the 15 large sites surveyed, 10 took longer than 4-5 years) Based on: Stage 1 and 2: Regulatory and build out stage length AX9; and Stage 1: Regulatory stage length AX10.	286.2 dpa – average annual build out (units) of the 15 large sites Based on Stage 2: Annual build out (units) – AX26	I concluded in the Draft Analysis that the homogeneity of the types and tenures of the homes on offer on these sites, and the limits on the rate at which the market will absorb such homogenous products, are the fundamental drivers of the slow rate of build out. I also concluded that: a. it would not be sensible to attempt to solve the problem of market absorption rates by forcing the major house builders to reduce the prices at which they sell their current, relatively homogenous products. This would, in my view, create very

[11] Letwin Review Independent Review of Build Out Rates Annexes

Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary

serious problems not only for the major house builders but also, potentially, for prices and financing in the housing market, and hence for the economy as a whole;

b. we cannot rely solely on small individual sites. This cannot be a question of "either / or". We will continue to need more new housing both on smaller sites and on large sites; and

c. if either the major house builders themselves, or others, were to offer much more housing of varying types, designs and tenures including a high proportion of affordable housing, and if more distinctive settings, landscapes and streetscapes were provided on the large sites, and if the resulting variety matched appropriately the differing desires and financial capacities of the people wanting to live in each particular area of high housing demand, then the overall absorption rates – and hence the overall build out rates – could be substantially accelerated.

Finally, I assessed the extent to which the rate of build out on very large sites might be held back by constraints other than the market absorption rate, if that binding constraint were removed. I looked in particular at the extent to which both start up on site and later build out rates could be affected by:

- lack of transport infrastructure,
- difficulties of land remediation,
- delayed installations by utility companies,
- constrained site logistics,
- limited availability of capital,
- limited supplies of building materials, and
- limited availability of skilled labour.

I found that more effective coordination between government departments, agencies and private sector operators was urgently required to improve and speed up the delivery of transport and utility infrastructure before the build out could start (and sometimes during the construction period) on large brownfield sites; but I concluded that neither this issue nor any of the other potential constraints were likely to impede the build out rate itself, even if the constraint of the absorption rate was removed – with one exception – namely, the availability of skilled labour.

On the availability of skilled labour, my conclusion was that an insufficient supply of bricklayers would be a binding constraint in the immediate future if there was not either a substantial move away from brick-built homes, or a significant import of more skilled bricklayers from abroad, or an implausibly rapid move to modular construction techniques. I concluded that the only realistic method of filling the gap in the number of bricklayers required to raise annual production of new homes from about 220,000 to about 300,000 in the near-term, was for the Government and major house builders to work together on a five year "flash" programme of on-the-job training.

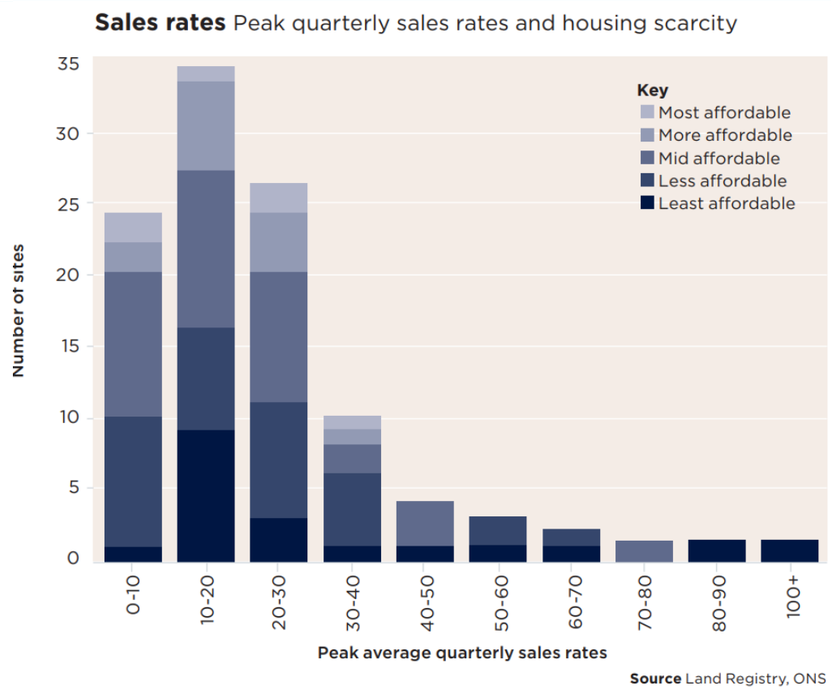
To give the greatest possible chance of significant change in the build out rates and quality of large scale development in the longer-term I recommend that the Government should:

Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary
			a. the local authority could use a Local Development Company (LDC) to carry out this development role by establishing a master plan and design code for the site, and then bringing in private capital through a non-recourse special purpose vehicle to pay for the land and to invest in the infrastructure, before “parcelling up” the site and selling individual parcels to particular types of builders/providers offering housing of different types and different tenures; or b. the local authority could establish a Local Authority Master Planner (LAMP) to develop a master plan and full design code for the site, and then enable a privately financed Infrastructure Development Company (IDC) to purchase the land from the local authority, develop the infrastructure of the site, and promote the same variety of housing as in the LDC model.
Cambridge: A city state of mind? (Savills, 2018)	-	-	.. much of the new development is aimed at the top end of the market; the average transaction value in the year to June 2018 for a new build house was £814,865, 33% higher than the average value for second-hand houses. In contrast, in South Cambridgeshire, new build values were 1.8% below second-hand values. To deliver this level of new housing in a more challenging market, developers will need to adopt new strategies. There have already been pricing adjustments which should help tackle the affordability challenge, but an increased focus on delivering smaller units at prices that are eligible for Help to Buy support would also help increase the numbers of buyers able to access the new build market. Our research last year demonstrated that in less affordable markets like Cambridge, highest sales are achieved where pricing is in line with or at a discount to the second-hand market. In Cambridge itself, limited land supply and demand for variety of uses, such as hotels and student accommodation alongside residential, makes it harder for developers to deliver new homes at this price point, and therefore, rapid delivery of homes for open market sale is most likely to be found on sites in the city’s hinterland. There is also the opportunity to deliver more purpose built rental stock. Cambridge is unusual in comparison to similarly sized regional cities as it currently has no build to rent schemes under construction, although there are proposals at an early stage for 600 PRS homes at Cambridge North. In contrast, there is a pipeline of over 1,500 PRS units in Bristol. Delivering alternative tenures will also help market absorption, and in Cambridge there is strong rental demand both from young professionals to live in the city centre and increasingly from families looking for homes in more suburban or rural locations.
What next for housebuilding? (Savills, 2018)	-	-	How important is product diversity? We have tested Sir Oliver’s [the ‘Letwin Review’] conclusion against our own data of 30 sites across the country, each with capacity for more than 1,000 homes. We assessed sales rates against the mix of house types (detached, semi-detached and terraced and flats) on each site. While there is a correlation between more diversified sites and a higher sales rate, this is an inconsistent relationship. Our analysis shows that there are many other factors in play. The sites achieving the highest sales rates of at least 50 homes per quarter all provide a wide range of house types. At the Western Expansion Area in Milton Keynes, which had the highest sales rate of the sites in our study, the most prevalent house type accounted

Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary
			for 36% of units sold. The least prevalent type accounted for 18%. The sites achieving lower sales rates tend to have one product type dominating delivery, accounting for more than 50% of all sales. The effect of product diversity can be seen in the difference in build-out rate between Great Western Park in Didcot and Beaulieu Park in Chelmsford. These sites are of similar size, with capacity for 3,300 and 3,600 homes respectively, yet private sales have averaged at least 195 per year at Great Western Park (between Q1 2015 and Q4 2017) compared with 120 homes per year at Beaulieu Park (between Q3 2016 and Q3 2017). At Great Western Park, a wide mix of house types and sizes have been delivered, whereas the focus at Beaulieu Park has been on larger homes. The importance of competition - However, a variety of home types doesn't guarantee a high sales rate. The sites in our study that had the highest variation in product all had peak sales of fewer than 30 homes per quarter, less than half the rate of the fastest-selling sites. Clearly, building less homogenous developments isn't the sole solution to the challenge of increasing delivery. Instead, our analysis shows that the broader market context for each site is the main influence on sales rate. Competition among sites is a key limiting factor on the pace of sales. All of the sites that achieved a sales rate of more than 30 units per quarter were supplying over 50% of new build homes within a two-mile radius of the site. The correlation between sales rates and share of the local new build market is more than 2.5 times stronger than that between sales rates and product variation. Pricing relative to the local market is also a factor on sales rates. Where large sites are successfully selling high numbers of new homes, particularly in less affordable areas, the homes tend to be priced in line with or below the local market. Great Western Park and the Western Expansion Area in Milton Keynes have average sales values 2% below the average for the local new build market. North West Bicester, Ledsham and Ashford, however, were selling at between 2 and 12% above the local market averages, and achieving much lower sales rates. To maximise absorption, new homes need to be accessible to the mass market. In unaffordable locations with competing supply, this requires new homes to be priced below local market averages. Beyond sales rates - Looking at sales rates should not be the only focus for boosting housebuilding. There were 1.2 million residential transactions in the year to June 2018, half a million fewer than before the global financial crisis. New build transactions have historically tended to follow overall market activity, amounting to around 10% of all residential transactions. In recent years, new build has climbed to 12% of all transactions, largely thanks to Help to Buy, but it is questionable how much further that relationship can be pushed, even with increased product diversity. Therefore, if overall numbers of transactions do not increase, it is hard to see how new build sales will. Instead, developers need to tap into demand in other parts of the housing market. This will require more diversity of tenure, namely private rented homes and affordable housing, both of which are underserved by new housing development.

Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary
			Price - Where large sites with significant competing supply are selling high numbers of new homes, they tend to be priced in line with, or below, the local market. Our research revealed lower sales rates where properties were sold at margins that were as little as 2% above the local market average. Local competition - The correlation between sales rates and share of the local new build market is more than 2.5 times stronger than that between sales rates and product variation. Our research of 30 sites across the UK showed that those with a sales rate of more than 30 units per quarter were supplying the majority of new build homes within a two-mile radius of the site.
Planning and housing delivery (Savills, 2019)	-	-	Scale and sales rates - There is no correlation between site size and the rate of delivery; sites with greater capacity and, hence, more physical potential to have multiple outlets, do not automatically result in higher delivery rates. Equally, there is little clear evidence that a rule of one sale per week per outlet can be applied across all markets. This shows that there is much more that needs to be taken into account when assessing delivery rates beyond the total capacity of a site and the number of outlets it can support. For open market sales, the strength of the local housing market and the demand for homes will be a key factor. Our research shows that for sites where sales rates are at least 50 homes per quarter, this has been achieved in areas where housing is least affordable (with affordability providing a proxy for demand). A further factor to consider is the pricing of new homes relative to the local market. The sites in markets that are selling high numbers of new homes tend to be priced at a discount to the average price of homes in the local second-hand market. Our previous research has shown that three of the highest delivery sites in higher-demand areas in 2017 were, on average, priced at a discount of up to 15% from local market pricing per square foot (Spotlight 2017: On track to solving the housing crisis?). There are, therefore, multiple considerations that need to be taken into account when assessing the potential delivery rate of any site and particularly larger sites. There is no single rule that can apply across all sites; instead consideration needs to be given to multiple factors, such as the level of housing scarcity in the area, the strength of the market, and the proposed pricing of the scheme. The strength of the local market is likely to have the greatest impact on build out rates.

Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary
How does the land supply system affect the business of UK speculative housebuilding? An evidence review. (UK Collaborative Centre for Housing Evidence, February 2019)	-	-	Letwin concluded that the homogeneity of housing products on large development sites combined with limits on the market absorption rate serves to slow down build out rates. Yet, build out rates form only one part of a much more complex set of processes that determine the speed and mode of speculative housing delivery. How housebuilders interact with land markets, make product selection choices and manage construction programmes are also likely to influence supply outcomes. ..sales rates and site size are two key factors in determining build-out rates. However, the evidence also suggests that the relationship between site size and output is not proportionate, which can be explained partly by the number of different sales outlets on each site. There is conflicting evidence on whether greenfield or brownfield sites are built out more quickly; although sites with more affordable housing do tend to be developed faster. For large development sites to achieve faster build-out rates would probably require the site to be split up into two or three sales outlets. Although it is hard to make direct comparison between the Letwin Review and the NLP study, both indicate that a large development site with an intended output of 2,000 units might build out at a rate of around 130 per annum. But reflecting Adams, Leishman and Moore (2009), to achieve even this rate would require the site to be split up into two or possibly three different sales outlets. ..local housing markets are considered to have only limited capacity to absorb new homes if prevailing price levels in the second-hand market are to be maintained. Housebuilders will thus explain their production rates by reference to the linked concepts of market



Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary
			capacity and market absorption. These concepts might seem a simple and obvious explanation of build-out rates, but they can be interpreted critically or uncritically. Crucially, then, absorption rates are intricately connected to, and indeed derive from, financial appraisals undertaken by housebuilders at the time of land purchase. They are certainly not some magical concept delivered from on high by distant market forces. ..the principal emphasis on potential solutions emerging from the literature to slow build-out rates concern the linkage between planning policy, land supply and market demand, rather than making housing construction smoother or more efficient. The pace of development appears to depend more on how fast newly-built homes can be sold, rather than on how fast they can be produced (Adams, Leishman and Moore, 2009). More recent attention has focused on whether government can speed up build-out rates by insisting on more diverse range of producers and indeed products at any large development site. By drawing in customers who might not otherwise prefer, or be able to afford, newly-built, this broadens the market appeal of new developments and thus works with the grain of market-based explanations for slow build-out rates. There is strong evidence that such an approach can work where land is originally owned by the public sector. For example, according to IPPR (2011: 43)[12], the then Homes and Communities Agency's Public Land Initiative "used a joint venture model to capture a percentage of land value gains for the public sector while setting out strict criteria for lower profit margins and fast build-out rates to spur investment activity". Interesting, this mainly attracted domestic and foreign construction companies willing to accept lower margins for lower risk, rather than the traditional UK housebuilders. Alternative explanations include the reluctance of most UK housebuilders' to innovate (Barlow, 1999), adopt supply chain strategies and demonstrate supply chain awareness (Barker and Naim, 2008) or move over at any scale to modern and offsite methods of construction (Goodier and Pan, 2010)[13].
How does your garden grow? A stock take on planning for the Government's Garden Communities programme (Lichfields, December 2019)	7-8 years - majority of Garden Community Sites which have no permissions yet (depending on their size) to begin delivering 2-3 years - those with outline permission (again dependent on size)	-	To understand the trajectory of housing delivery from Garden Communities, we have applied average build rates and lead in times by size of site from our Start to Finish 2 publication to create a national Garden Communities trajectory (Figure 8). This indicative delivery timeline accounts for the stage at which individual sites and schemes within the programme have already reached, including any completions and outline permissions that have occurred, but does not account for potential variations in build out rates over time on individual sites (e.g. ramping up of delivery in the early years once full permission has been granted). We have not assembled this with a view to presenting a position on the trajectories of individual projects for the purposes of assessing individual plans; it is an attempt to estimate the trajectory of the overall programme.

[12] IPPR We Must Fix It December 2011
[13] BARLOW, J. 1999. From craft production to mass customisation. Innovation requirements for the UK housebuilding industry. Housing Studies, 14 (1), 23-42.
BARKER, R. & NAIM, M. M. 2008. Is supply chain thinking permeating the UK housebuilding industry? Findings from a survey of UK housebuilders. International Journal of Logistics-Research and Applications, 11 (1), 67-80.
GOODIER, C. & PAN, W. 2010. The future of UK housebuilding. RICS research report. RICS: London.

Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary
			Our modelling suggests the Garden Communities programme will take until at least 2050 to build out fully before consideration of any unforeseen delays or specific measures to accelerate build-out. Based on our assumptions, the programme will deliver only around 21,000 homes over the next five years, before significantly increasing for the period from 2025 and ramping up to a peak rate of delivery of around 16,000 per annum after 2030 continuing until about 2044 before tapering (to 13,000 dwellings per annum) by the late 2040s Caution is required, as there can be substantial variation in build out rates, both in terms of individual sites, as well as for sites over their lifespan of delivery. For example, our Start to Finish 2 research found that peak delivery could be up to 75% higher than average delivery across all years. Exogenous factors such as market conditions, planning policy changes and changes to financing are all likely to play a part in this, and of course one of the aims of the Government support that Garden Communities can attract is to help increase the pace of their delivery. However, the indicative timeline usefully shows how long it might take the Garden Village programme to achieve its housing output goals if average build rates were applied. We can conclude that Garden Communities will deliver a significant number of homes, but the more significant impact will not be seen until well after the next national electoral cycle. We have used typical lead in times and planning periods based on Start to Finish 2, suggesting that the majority of Garden Community Sites which have no permissions yet will take 7-8 years (depending on their size) to begin delivering, and those with outline permission will take 2-3 years (again dependent on size) to do so. Sites already under construction or with reserved matters granted are assumed to build out from 2020. The scale of the programme is undoubtedly ambitious, and it has progressed further than some ill-fated predecessors – such as ‘new country towns’ and ‘Eco Towns’. While the Garden Communities are unlikely to deliver the lion’s share of their housing allocations until the mid-2020s - beyond the next election cycle - they could deliver up to 16,000 dwellings per annum by the 2030s based on current typical build rates and lead in times, making a significant contribution to meeting housing need.
Modern Methods Of Construction (Savills, 2020)	-	-	Drivers of adoption - Many factors impact the adoption of MMC, but looking at international examples show that the three main drivers are: the cost and availability of labour, housing supply shortages and regulatory or governmental intervention. The cost of adopting MMC is generally higher than continuing with business as usual, reducing the incentive to change. However, labour shortages are driving up construction costs. Adoption of MMC, which improves productivity and reduces onsite labour, offers a potential solution. The supply and demand imbalance of homes is a further driver for adoption. There is a growing acceptance that ‘business as usual’ is not good enough and something has to change. This is causing more and more developers and housebuilders to look at supplementing traditional construction with MMC. The need to improve energy efficiency and reduce the environmental impact of housing and housebuilding, is a further driver of change. Using traditional techniques it is very

Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary
			difficult to achieve high levels of energy efficiency and studies show substantial material wastage. However, building homes under factory-controlled conditions allows much tighter tolerances to be met, improving energy efficiency and significantly reducing waste. Growth potential - Before we entered the current pandemic the UK was already facing the three main challenges that have spurred greater adoption of MMC globally. The UK is already facing labour shortages in the construction sector. The Farmer report[14] highlighted that between 2016 and 2026 around 62,000 workers would retire each year. However, the government's latest figures show only around 23,000 new apprentices starting each year. This is likely to be exacerbated by changes to the immigration system once we leave the EU. 10% of the 2.2 million people that work in construction in the UK have migrated here. Research from the IPPR[15] suggests that 59% of the current construction workforce that has migrated from the EU would be ineligible for a visa under the proposed new rules. Despite housing delivery increasing steadily over the past few years, the number of new homes built still needs to increase by 24% to reach 300,000 homes per annum. This is going to be an extremely tall order using traditional construction alone. If we are serious about meeting the pledge to be carbon neutral by 2050 then the energy efficiency of homes will need to dramatically improve, along with reducing the environmental impact of construction. Both things that MMC is well placed to deliver on; highlighted by the homes that Etopia UK are building, which use 39% less CO2 during construction than traditional construction and are expected to save 167 tonnes of carbon over 25 years of use. These three factors will lead to increased adoption over the next decade. We expect that over the next 10 years the proportion of homes built using MMC will rise from today's 6-10% to closer to 20%. What is being delivered? Of the roughly 10,000 new homes we have identified, almost half are being brought forward on open market sale schemes. These include Urban Splash and Sekisui House at Northstowe, where they will be delivering 406 new homes, of which 325 are for open market sale. But what is interesting is the level of delivery on wholly affordable housing schemes. While these only account for around a fifth of total units, they account for almost half of all schemes. This reflects a more cautious approach being taken by many housing associations and local authorities who are running small pilot programs. This is borne out looking at the average size of an affordable only scheme, which is only 45 units compared with 131 for an open market sale scheme. Where next for demand? In the short term, demand for MMC is likely to be driven by the need to increase housing delivery and shortage of construction workers. While we expect demand to arise across the country, these two drivers indicate it is likely to be strongest in London, South East and East of England.

[14] Construction labour market in the UK: Farmer review October 2016
[15] IPPR Immigration plans analysis: Two thirds of current EU migrants in health and care sector would have been found ineligible February 2020

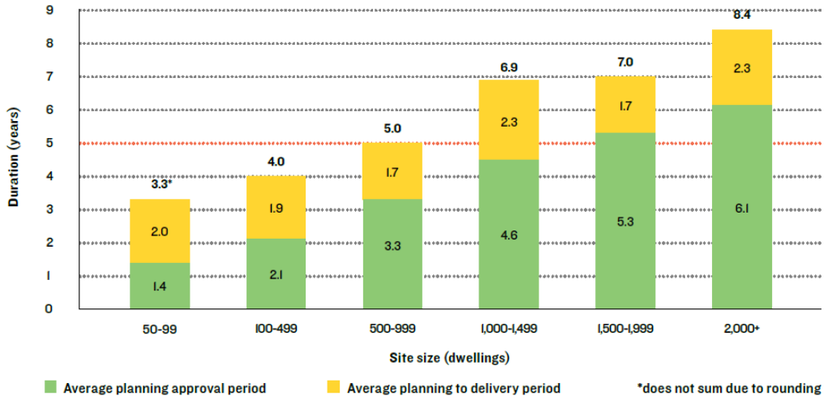
Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary
			These are the regions showing the largest supply and demand gap and related affordability challenges. Furthermore, London's construction industry is heavily reliant upon foreign labour, particularly those from the EU, whose access is likely to be impacted by the proposed new immigration rules post Brexit. The big question though, is how much will the disruption caused by Covid-19 drive wider adoption across the country and super charge demand nationally?
Start to Finish. What factors affect the build-out rates of large scale housing sites? Second Edition. (Lichfield, February 2020)	Table I: Average planning approval period by size of site (years) Site Size / 1st edition research (years) / This research (years) 50-99 / 1.1 / 1.4 100-499 / 2.4 / 2.1 500-999 / 4.2 / 3.3 1,000-1,499 / 4.8 / 4.6 1,500-1,999 / 5.4 / 5.3 2,000+ / 6.1 / 6.1 Source: Lichfields analysis	160 dpa - The annual average build-rate for the largest sites (of 2,000 or more units) 61/outlet/year - average completions per outlet on sites with one outlet 51/outlet/year - for sites of two outlets 45/outlet/year - for sites with three outlets Table 4: Mean delivery rates by site sizes, a comparison with first edition findings Site size (dwellings) / 2016 edition research (dpa) / 2020 edition research (dpa) / Difference 50-99 / 27 / 22 / -5 (-19%) 100-499 / 60 / 55 / -5 (-8%) 500-999 / 70 / 68 / -2 (-3%) 1,000-1,499 / 117 / 107 / -10 (-9%) 1,500-1,999 / 129 / 120 / -9 (-7%) 2,000+ / 161 / 160 / -1 (-0.62%) Source: Lichfields analysis	Geography and Site Configuration - An under-explored aspect of large-scale site delivery is the physical opportunity on site. For example, some schemes lend themselves to simultaneous build out of phases which can have the impact of boosting delivery rates in that year, for example, by having access points from two alternative ends of the site. Other sites may be reliant on one key piece of infrastructure which make this opportunity less likely or impractical. In the first edition of this research we touched on this point in relation to Eastern Expansion Area (Broughton Gate & Brooklands) of Milton Keynes. As is widely recognised, the planning and delivery of housing in Milton Keynes is distinct from almost all the sites considered in this research as serviced parcels with the roads already provided were delivered as part of the Milton Keynes delivery model. Multiple house builders were able to proceed straight onto the site and commence delivery on different serviced parcels, with monitoring data from Milton Keynes Council suggesting an average of c.12 parcels were active across the build period. In this second edition of this research the Milton Keynes examples remain some of the sites with the highest annual build-out rates. In this edition we look at the case study of Land South of the M4 in Wokingham. In 2017/18 the site achieved a significant 419 completions. Using the local authority's granular recording of delivery on the site to date, we have been able to consider where these completions were coming forward from within the wider 2,605 dwelling scheme. As shown in Figure 14, in that year new homes were completed on five separate parcels with completions ranging from 4 to 169 dwellings. On some of these parcels (SP9_1 and SP4) there were two or three separate housebuilders building out, and in total on the site there were seven different house building companies active (the impact of multiple outlets on build-out rates is explored later in this report). The parcels are located in separate parts of the site and each had their own road frontages and access arrangements which meant they are able to come forward in parallel. This can enable an increased build rate. Figure 14: Map of parcels at Land South of M4, Wokingham  Source: © Google Earth 2020/ Wokingham Local Plan Table 7: Parcels at Land South of M4, Wokingham Parcel reference / Developers (active outlets) / Completions in 2017/18 SP1 / Bellway (1) / 59 SP2w / Bellway and Bovis (-) / None - parcel completed SP3 / Crest Nicholson (1) / 47 SP4 / Taylor Wimpey and David Wilson Homes (2) / 140 SP9_1 / Bloor, Bovis and Linden (3) / 169 SP10 / Darcliffe Homes (-) / None - parcel completed SP11 / Taylor Wimpey (1) / 4 Source: Lichfields analysis

Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary

1. Large schemes can take 5+ years to start - In developing a local plan, but especially in calculating a 5YHLS position, it is important to factor in a realistic planning approval period dependent on the size of the site. Our research shows that if a scheme of more than 500 dwellings has an outline permission, then the average time to deliver its first home is two or three years. However, from the date at which an outline application is validated it can be 5.0 - 8.4 years for the first home to be delivered dependent on the size of the site. In these circumstances, such sites would make no contribution to completions in the first five years.

2. Lead-in times jumped post-recession - Whilst attention and evidence gathering is often focused on how long it takes to get planning permission, the planning to delivery period from gaining permission to building the first house has also been increasing. Our research shows that the planning to delivery period for large sites completed since 2007/08 has jumped compared to those where the first completion came before 2007/08. This is a key area where improvements could be sought on timeliness and in streamlining pre-commencement conditions, but is also likely impacted by a number of macro factors including the recession and reductions in local authority planning resources.

Figure 4: Average timeframes from validation of first application to completion of the first dwelling



Source: Lichfields analysis

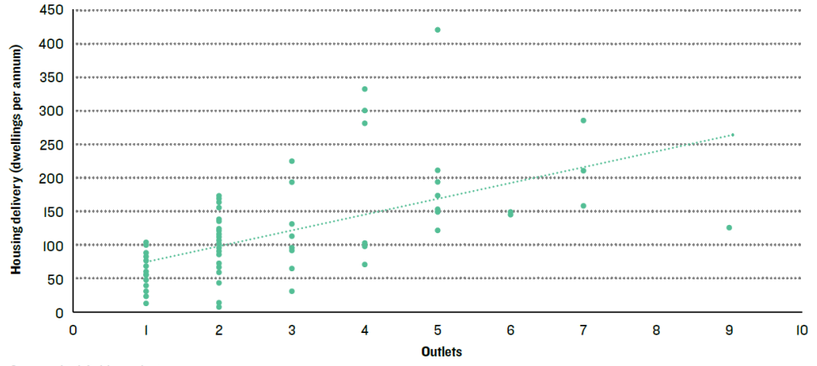
3. Large greenfield sites deliver quicker - Large sites can deliver more homes per year over a longer time period, with this seeming to ramp up beyond year five of the development on sites of 2,000+ units. However, on average these longer term sites also have longer lead-in times. Therefore, short term boosts in supply, where needed, are likely to also require a good mix of smaller sites. Furthermore, large scale greenfield sites deliver at a quicker rate than their brownfield equivalents: the average rate of build out for greenfield sites in our sample was 34% greater than the equivalent figure for those on brownfield land. In most locations, a good mix of types of site will therefore be required.

4. Outlets and tenure matter - Our analysis suggests that having additional outlets on site has a positive impact on build out rates, although there is not a linear relationship. Interestingly, we also found that schemes with more affordable housing (more than 30%) built out at close to twice the rate as those with lower levels of affordable housing as a percentage of all units on site, but those with 20-29% had the lowest rates of all. Local plans should reflect that – where viable – higher rates of affordable housing supports greater rates of delivery. This principle is also likely to apply to other sectors that

Source	Lead in Times (variable metrics)	Build Out Rates / Outlets	Findings Summary

complement market housing for sale, such as build to rent and self-build (where there is demand).

Figure I3: Build-out rates by number of outlets present (dpa)



Source: Lichfields analysis

Appendix 8 The Potential Impacts of the Covid-19 Pandemic on Housing Delivery

The aim of this section is to identify short, medium- and long-term trends which might impact on housing demand and supply within Cambridge and South Cambridgeshire and the consequences for the delivery of new homes within the area.

Factors which affect both demand for and supply of homes will impact on delivery rates on sites. The strength and nature of demand will impact on the pace at which developers build out their sites as they respond to sales rates on other sites and prices or rents achieved. Constraints (or opportunities) which impact on supply e.g. timely infrastructure delivery, utilities provision, will also impact upon the rate at which developers can build.

Table 35 considers the trends related to the Covid 19 pandemic and these trends are grouped under five themes which provide a useful framework for thinking about the future:

- Social: relating to people, communities and networks.
- Technological: relating to current and emerging technology and innovations.
- Economic: relating to jobs, businesses, investment, incomes and wealth.
- Environmental: the natural environment, including climate.
- Political: relating to policy and political responses.

The major impacts associated with the Covid-19 pandemic will shape the future of housing demand and supply, at least in the short term and the outcomes will impact on local residents. This section aims to identify the effects associated with the pandemic and how these are likely to translate into impacts on housing demand and supply and specifically housing delivery. It also identifies longer standing trends, their likely impacts and how these might interact with the effects of the pandemic.

The rest of this section identifies trends and impacts and considers how they are or might relate to housing demand and supply, specifically in Cambridge and South Cambridgeshire. **Table 35** summarises the trends identified by AECOM and these are discussed in the rest of the section. These are trends and impacts which can be identified or estimated either through existing evidence or based on experience of past trends and events. It is important to keep in mind that predicting the future is uncertain, particularly in the longer term, and there are likely to be trends, events and impacts which are impossible to predict.

Table 35 identifies trends and impacts over different potential time periods. However, there are other dimensions to each impact which need to be borne in mind:

- Scale: some trends and impacts will have a much greater effect than others. It is not always easy to predict how certain events will unfold and whether they turn out to be temporary (e.g. UK workers working from home during lockdown) or snowball in unpredictable ways (positive experience of home

working could result in a reshaping of how we work to a more decentralised form in some sectors).

- Spatial: some trends and impacts will be experienced differently in different places. For example, the impacts of travel restrictions due to Covid-19 particularly impact on places that are dependent on tourism and travel.
- Equality: some trends and impact will be experienced differently by different people and communities. Furthermore, economic recessions tend to exacerbate health inequalities.

Implications for Greater Cambridge

Drawing on the patterns and events identified in **Table 35**, it is useful to consider the trends which might be most relevant to Greater Cambridge, in terms of housing demand and supply in the future. AECOM have identified 5 broad themes which might result in some form from current and emerging trends. These are as follows and are briefly described below:

- Economic shock, recession and restructuring
- Ageing and care
- Reshaping of retail, town and city centres
- Reassessment of values and priorities
- Bigger state and stronger communities

Economic shock, recession and restructuring

There are a likely to be a number of predictable impacts as a result of the global pandemic that are relevant to draw out in terms of housing demand and supply and delivery rates on sites. First, housing demand depends on a number of components including migration (including international migration which drives population growth), job growth and the growth and pattern of household incomes. The drivers of housing demand will be severely curtailed by the impacts of recession:

- International migration to the UK all but stopped in the immediate term. Whilst this was temporary, the extent to which it recovers as the economy recovers will depend on whether jobs are being created which migrants need to fill and new immigration restrictions post Brexit. Cambridge is a particular destination for international migration linked to the University (both students and academics) and high tech companies associated. International student numbers may be lower in the short term but places at Cambridge will be filled by domestic students and numbers are likely to be high in 2020/21 compared to previous years because of the number of offers honoured following the A level results crisis.
- Job losses are anticipated, particularly when furlough support ends, which will have an immediate impact on housing demand and is likely to reduce transactions in the housing market. Transactions fell by 40-50% following the credit crunch in 2008/09, taking a decade to recover to ‘normal’ levels in many areas. Initial sales levels during lockdown fell sharply but have since picked up in response to the stamp duty holiday.

- Household incomes are expected to fall or stagnate amongst some segments of the population. Many employees have taken pay cuts to assist their employers in the immediate term. It is likely that some employers will encourage their employees to take voluntary pay cuts for the longer term as they recover. Lower and middle income households are likely to be most affected. Wealthier households are likely to be able to shelter themselves from any falls in income by drawing on assets or savings. This may mean that some segments of the housing market remain more robust though general economic uncertainty is likely to limit sales overall.
- Incomes and earnings are already low for many households within Greater Cambridge. Almost 9,300[16] households in the two authority areas are supported by housing benefit because their earnings and incomes are insufficient for them to be able to afford housing costs. The majority are in employment. Any falls in the earnings of these households due to reduced hours or loss of employment is likely to push some of these households into more precarious positions including rent arrears, the threat of eviction and ultimately homelessness.
- If house prices fall, this should improve affordability at the margins but is unlikely to increase access to home ownership substantially as this will depend on households' job security, income and access to credit. The path of rental prices is more uncertain as demand for renting, including the PRS, is likely to increase as households are unable to afford home ownership in the short term. Rents may continue to increase therefore due to higher demand.
- The economic impacts of Covid on local businesses (primarily the failure of employers/loss of employees but also new working habits) could in the medium-term result in higher vacancy rates for employment premises, particularly offices. This could accelerate the rate of conversion of office buildings to residential in the urban areas. The resulting residential accommodation tends to consist of smaller and (potentially) lower priced or rented flatted units that could improve affordability for local people. There are also concerns about these conversions nationally in terms of the quality and space standards in these homes. However, lower residential land values and financial challenges for developers could also counterbalance an increase in the number of conversions.

In the medium to longer term, as the economy recovers, there is likely to be restructuring with some sectors and locations struggling to recover whilst others grow. Cambridge has experienced 'innovation rich' business growth. Cambridge has the highest number of patent applications per 10,000 people in any city in the UK. Key sectors include computers and software, telecommunications, and life sciences. The concentration of these types of businesses is likely to protect the area to a greater extent from the downturn associated with Covid impacts. The CPIER report noted the tendency for agglomeration in these sectors, with strong clusters of knowledge industry businesses in Cambridge and the south. The report was firm in its conclusion that these businesses were unlikely to disperse geographically and that it was more likely that they would move overseas than elsewhere in the UK. The impacts following the Covid 19, including increased working from home, has challenged this model, at least in the short

[16] Data for claimants in August 2020 from StatXplore

term. It is difficult to predict whether it will have any longer term effect on how these business operate and their preferences for location.

Some commentators expect further growth of insecure work, including the 'gig economy' which is likely to underpin demand for the PRS and subsidised housing. Reduced international travel in the short and medium term is having an immediate impact on airlines and airports and travel by aeroplane is not expected to recover to pre-recession levels. International travel is likely to remain disrupted or be restricted in the short term.

Furthermore, reshaping of UK trading relationships as a result of Brexit has the potential to deepen the downturn or delay recovery if uncertainties persist or if supply chains for certain sectors are disrupted. Greater Cambridge is an area which has attracted many international businesses to locate and this pattern may be impacted by both Covid and the future trading relationships post Brexit.

In previous down turns and recessions this tended to lead to consolidation in the construction sector with larger builders/contractors merging to reduce risks. There has also been significant loss of labour and skills, particularly amongst smaller builders who are less able to weather the downturn. Any recovery may be affected by the interplay with leaving the EU, with the potential that overseas labour is unavailable on the same scale. However, this restructuring also reveals opportunities for new entrants/ disruptors to buy land and buildings and potentially do things differently to the traditional house builders. Modern methods of construction also provide opportunities to reduce labour demand on site.
Demand for homes is strongly linked to the economy and so the economic shock of Covid-19, following recession and recovery, will impact on the scale and shape of demand for homes in Greater Cambridge. Some markets are likely to remain robust, particularly where residents are wealthier and protected from falls in wages and incomes. On the whole, Greater Cambridge is a wealthy area which contains many high income households (linked to the type of businesses in the area), although it is not without pockets of deprivation. The area also draws in migrants and in commuters from a wider area. Many of these may prefer to live in Greater Cambridge if there were affordable housing options available. This works in favour of achieving higher delivery rates in the area compared to other areas.

There is likely to be further polarisation of households' ability to meet their needs and greater inequality in housing outcomes in the short term. Across the area there is likely to be greater demand for affordable housing linked to households experiencing job losses or a reduction in their earnings and an inability to afford private rents.
In Greater Cambridge and across the country, there is likely to be an impact in the short term on the build out of new sites, both because of reduced market demand, site viability and the possible impact on labour and materials in construction sector. Smaller businesses without capacity to weather the downturn may be impacted to a greater extent which may impact disproportionately on small sites which are more reliant on smaller builders.

There may be opportunities for the local authorities (or registered providers) to buy up sites and buildings in the way that other authorities and registered providers did in response to the housing market downturn following the credit crunch. In 2011/12, there

was a large increase in delivery of affordable housing nationally as RPs were able to use Government funds to buy up builders' stock and in turn, support the cash flow to these companies.

Ageing and care

The ageing population is a long standing demographic trend and relatively straightforward to understand and predict. The population of Greater Cambridge is also ageing, particularly in South Cambridgeshire, whilst Cambridge City is home to a very young population. But how this affects housing demand and supply is more complex. Most older people live in mainstream housing with only the minority moving to specialist settings, though there have been attempts to expand the choice available to older households locally and nationally.

There may be greater preference amongst older people to remain in their own homes in the future given the funding crisis in the care sector and the particular impacts of the pandemic on care home residents. There may be an increase (albeit from a small level now) in the number of families who decide to care for their older family members rather than relying on care homes. Demand for homes from older households may remain a more robust market during the housing market downturn as households rely to a greater extent on equity rather than income.

The experience of pandemic isolation and 'shielding' may mean some place greater value on particular attributes in their homes and communities e.g. spacious and flexible homes, smart technology, homes which are close to community support networks and open space. This may lead to a pattern of more nuanced demand amongst older buyers of mainstream housing in the future.

The Covid-19 pandemic has had an acute impact on the care home sector with some care homes in the country experiencing high infection rates and large numbers of deaths. Longer term, some care homes may find it difficult to recover from this shock. The care sector has difficulty filling jobs and is reliant on migrant labour to a substantial extent. Some care homes may struggle to fill capacity either because of the loss of some of their residents or reduced demand as some potential residents choose not to enter care settings. These short-term impacts will interact with the long-term funding problems in this sector which mean that it has a fragile existence, underpinned by low paid employment and high costs to occupants (particularly to those self funding).

However, the impacts of the pandemic provide an opportunity for the care sector, including extra care, to gain additional support and funding from Government. The scale of the crisis caused by the pandemic and the impact on the economy and society means there is potential for cross party consensus to fund the sector (similar to post war settlement and founding of the NHS and welfare state). Social care is likely to be higher on the political agenda because of the impact on this sector and the increased awareness amongst the public about its role and the value of its employees.

Reshaping of retail and town centres

The impacts of the economic shock following Covid-19 are likely to accelerate existing trends within the retail sector, with important impacts on town centres and other

neighbourhoods with shops, amenities and services. The Government's 'Stay at Home' measures during the pandemic have forced retailers, large and small, to move their sales online. Whilst many will return to a physical presence on the high street, there is likely to be reduced demand for shop outlets and a further need for town centres to offer the consumer experiences rather than traditional shops. This will impact on the availability of space in town centres -with many shops likely to be unable to reopen – providing availability for other uses e.g. leisure (subject to planning consents).

The acceleration of the shift to online retail and the response to the pandemic (including Apps to trace infection) is likely to lead to a deepening of the power of the internet conglomerations (e.g. Amazon, Google and Facebook). Government is increasingly reliant on these companies for data as well as the commercial sector for the sale of products and services.

Conversely, the experience of individuals and households during 'lockdown' has led to a greater appreciation of independent shops and services and local networks. Households have relied on local businesses (shops, takeaways etc.) to supply them with essential goods and in some cases, this has introduced greater choice and quality e.g. access to locally grown food.

Reassessment of Values and Priorities

Households have been forced to stay at home, limiting travel, and exercising in local green spaces whilst relying on essential workers to deliver 'front line' care and to provide essential supplies. There have been two clear reactions from commentators, reflecting the public mood to a great extent: a greater appreciation of green spaces and the benefits of better air quality and reduced noise levels; and a realisation of the value some workers provide to the economy and society even though they are often low paid.

Post Covid-19 there is perhaps an opportunity to introduce radical changes which would address climate change whilst there is public appetite and acceptance on the importance on maintaining the gains experienced during lockdown, including improved air quality and spaces, including roads given over to pedestrians and cyclists (rather than cars). This may lead to successful policies to reduce vehicle use, particularly in urban areas. Increased investment in sustainable transport to support people to use cycling and walking as they return to work and to help reduce demand on capacity constrained public transport may continue into the long term. Overall, there is an opportunity to rethink the planning of sustainable transport infrastructure, both existing infrastructure and how new sites are planned to make more radical environmental gains. There is also an opportunity to plan sites and communities with greater emphasis on green space and ensuring accessibility to green spaces for all residents, including those living in homes without gardens or private greenspaces.

Policies such as First Homes could, in theory, favour local key workers However, analysis on First Homes suggests discounts of substantially more than 30% may be needed in this area to ensure they are affordable to households on average incomes. In the medium term, there are likely to be serious constraints on public spending as Government's address the debt accumulated in tackling the pandemic. This may make it

more challenging to fund radical change in relation to climate change and to ensure key public services (and their workers) are properly funded.

Bigger state and stronger communities

The scale of the intervention made by Government during the pandemic is unprecedented in peacetime. Government is directly paying the wages of employees of private businesses and providing loans (by underwriting bank lending) to private businesses, which some commentators had suggested will lead to Government converting some of these loans to equity investment – effectively bringing businesses into public ownership in order to prevent them failing. There has been overwhelming acceptance of radical state intervention during this crisis.

But it is likely to take some time to roll back support even if the Government wants to reduce its intervention because some businesses and whole sectors may need propping up longer term in order to recover. This could make for complex problems when these interventions come up against Brexit trade deals with specific sectoral impacts which might lead to calls for Government support and subsidy.

There is potential for radical reform or shifts as Government's across the world deal with debts created by the economic crisis following the pandemic. It is thought that the scale of Government debt in the UK will be larger than that following the financial crisis and bailout of banks. Whilst pressure on public spending is likely to follow, it is difficult to envisage Governments being able to implement austerity style policies as with the response to the financial crisis. Increased taxation is likely and how this is distributed will affect behaviour of households and businesses.

Although debt is likely to be substantial, the Government is likely to need to stimulate the economy through its spending. Typically, Governments use programmes of housing and infrastructure to kick start the economy and new initiatives are likely to be launched, or others extended in response.

At the local level, stronger local community ties have been created and reinforced as a result of the 'stay at home' restrictions. There is potential to use the community capacity developed in this time over the longer term to support the strengthening of local networks and even the delivery of some important services. Local links and networks may be able to provide some level of care and support for vulnerable people locally for example, as demonstrated during the Covid-19 pandemic. It is likely that this would need to be linked to charities or professional providers in this sector but, if successful, could support older people to remain living at home and connected in their local communities.

Table 35: Identifying Future Trends for Greater Cambridge

	Social trends	Technological trends	Economic trends	Environmental trends	Political trends
Short-term **1-2 years**	Temporary reversal in globalisation e.g. young people moved back home, including returning overseas. Social distancing and stay at home – households spending time at home – value more spacious homes and outdoor space. Universities move to online learning, student housing empty, providers of student accommodation under pressure to provide rent refunds. Stronger local community networks established, greater reliance on local services and amenities. Impact on care sector – perception of safety, vulnerability of financial model. Reluctance to enter care settings, more households	Rapid increase in homeworking and uptake in technology – virtual meetings, video conferencing, could drive permanent shift for some sectors. Rapid increase in online shopping with expectation a % will shift permanently. Companies switching services online for safety during Covid-19 but may remain due to lower costs. Increased power of internet conglomerates (Google, FB, Amazon) and reliance on Government for their data and services. Concentration of tech companies in Cambs likely to benefit from this trend.	Deep recession on scale not experienced before. Job losses and business failures due to recession. Opportunity for some enterprises. Incomes cut or stagnant and increase in welfare claims. Detrimental impact on specific sectors e.g. travel, tourism, universities, retail and manufacturing. Domestic tourism may bounce back strongly if international travel restricted. Impact on construction sector – social distancing preventing sites progressing, reducing delivery rates and potentially slowing infrastructure provision.	Climate change crisis gathered momentum pre Covid-19, but action delayed in short term due to pandemic. Greater appreciation of green space, air quality, wildlife and tranquility. Lockdown highlighted inequality in access to greenspace. Rapid growth in cycling (commute and leisure). Opportunity to use as springboard for investment and policies to limit car use. Government announced extra funding (£2bn) to support sustainable transport in May. Uncertainty over public transport use	Covid-19 policy response focus of Government with progress on other issues delayed. Job retention scheme, business loans, business rates holidays etc. Considered temporary but uncertain exit strategy. Changes to NPPF, First Homes and standard method in 2020. Site size threshold increased. Pressure for changes to housing policies to improve quality and standards post Covid-19 (linking to Grenfell response) e.g. security in rented sector, space standards (removal of

	Social trends	Technological trends	Economic trends	Environmental trends	Political trends
	caring for elders, demand for extra space, 'granny annex'. Uncertainty about future (jobs, travel, leisure etc.) likely to reduce household propensity to move. Reduced wellbeing for households living in poor quality and overcrowded homes. Increase in domestic violence, need for safe places e.g. hostels. Reduction in rough sleeping, pressure to maintain through move on accommodation and support. But increased evictions from PRS, waiting lists increase and need for affordable housing.	Use of technology to support vulnerable people - smart homes, social networks. GPs practices switched most appointments to online/ video calls. Potential to maintain post Covid-19 and change services – faster appointments, resources freed up. Growth in health innovation, spurred by rapid vaccine development.	Some sites unviable in short term – either delays or re-plan. LAs/ RPs to buy up sites or homes for affordable rent in short/medium term. Sales/ moves in housing market severely restricted. Sales expected to be 40-50% lower over the year but some bounce back from stamp duty removal. Low interest rates to stimulate borrowing and growth. Bank of England interventions e.g. £200bn in quantitative easing (printing money) to fund Government emergency policy response since January 2020. Potential impact on value of £.	(issue of social distancing requiring reduced capacity and fear to return amongst travelling public). Risk of switching from public transport to car travel as people return to work, supported by low fuel prices. Increased use of energy in the home whilst 'stay at home' in place. Potential to expand space available to walkers and cyclists. LAs have additional powers to close roads. Examples from other countries e.g. Milan to pedestrianise central areas.	'bedroom tax') etc. to support infectious disease control as well as impact on low income households. Local elections delayed and 5-year fixed term for national Government meaning short term political stability is possible (though not guaranteed). Tensions between UK Govt and devolved administrations in response to Covid-19 and in Brexit outcomes. Political tension with balancing needs off different sectors and interest groups. Potential for protest and public disorder. Political tensions internationally due to new trading

	Social trends	Technological trends	Economic trends	Environmental trends	Political trends
			Companies limit investment. All impacts overlaid by changing trading relationships post Brexit.		relationships and competition for vaccine supply.
Medium-term **2-5 years**	Weaker household growth due to affordability and more limited migration. Migration dependent on strength of economy and may also be limited by increasing controls from 2021 post Brexit. Young households unable to form/ sharing with parents. Greater demand/need for renting (private and social). Greater requirement for subsidised housing. Older households may be reluctant to move but may have financial ability to do so – greater demand for attractive housing for older people, including forms of	Shift to home-working - more demand for internal space, different configuration, less driving, neighbourhood hubs, vibrant daytime surroundings/economy, demand for more bedrooms/separate working space. Demand for Smart homes - energy efficiency, social connectedness (video/tv integrated), automation, better air purifying/ filtration systems. Shift to online retail accelerated by Covid-	Potential ongoing constraints on travel and trade due to restrictions on movement caused by pandemic (ongoing challenge with new variants) Incomes and wages may be stagnant which will limit demand for housing to households with wealth/equity or secure employment. Potential for widening of inequality (unless Government responds to address through policies). Likely to be recovery from recession but may	Opportunity to introduce and fund sustainable transport policies e.g. limiting car use in towns and cities combined with greening urban environments. Likely challenge from lobby groups for right to clean air. Change in commuting patterns. Local Plans and masterplans of new developments have greater emphasis on green space and sustainable transport. Continued weather events (storms,	Bigger state with continued support for businesses and political imperative to invest in health, care and sectors to aid recovery e.g. infrastructure investment. May lead to reprioritising of infrastructure funding and schemes to ensure particular locations/ sectors supported away from wealthier areas including London and SE. Potential for major rethink of tax and spending within UK in

	Social trends	Technological trends	Economic trends	Environmental trends	Political trends
	independent living and greater appreciation of accessibility of new homes and technology available. 'Downsizing' may become less popular because of greater appreciation of space in homes. Homeworking enables some households to move further from workplace and commute back less regularly. Greater demand for attractive locations to live/work. Weaker link between housing and labour market. Stronger local community networks maintained. Opportunity for public authorities to tap into community capacity – volunteers, expertise etc. Greater reliance on local services and amenities if home working levels maintained to some level.	19 is maintained and town centres in particular become more reliant on experiential rather than sales outlets. Growth in online learning. Cyber security becomes a key focus with move to business online. Refocus on modern methods of construction - faster build-out, energy-efficiency, flexibility and choice of layout, more contemporary aesthetic, architectural appeal of site as a whole. Building regulations – further changes to reflect energy-efficiency, safety,	be weak growth in employment and wages if uncertainties (Covid-19 and Brexit remain). Lower levels of investment by companies which have suffered during downturn and/or have borrowed to keep business going. Companies wanting greater control over their global supply chain – opportunities for UK businesses. Some move to source locally, though overall driven by cost. Potential for shortages in skilled but low paid sectors (e.g. construction, care, health) despite higher unemployment because of reliance on overseas workers and changes to migration post Brexit.	floods, hot summers) putting pressure on housing and infrastructure policies. Climate change higher on agenda but harder to address because of Government debt and political distractions. Action on climate change expected but may struggle to secure attention and funding due to economic crises. Mitigation efforts, e.g. energy-efficiency, on-site renewables - need to incorporate innovation, potential for retrofitting, respond to government subsidy programmes (e.g. green deal), communal heating and hot water	response to Covid-19 and impacts. Big spending or tax changes needed. Likely to be both with continued pressure on public finances though not austerity. Radical tax reform politically difficult but higher taxes likely. Potential for international solutions to debt and restructuring in response to Covid-19. Global wealth tax? Or different approach to companies registered offshore. Added complexity of new trade negotiations with uncertainties and disruptions leading to supply chain issues, costs, labour shortages.

	Social trends	Technological trends	Economic trends	Environmental trends	Political trends
	Continued uncertainty within care sector, reduced demand with some care homes forced to close, vulnerability of financial model. Potential increase in multigenerational living - larger homes with different configurations Some return to 'normal' patterns of movements for jobs and leisure. Reduced propensity to move/ relocate because of economic pressure, uncertainty and weak housing market. But relocation of some people out of dense urban environments due to experience of pandemic. Increased demand for suburban and green locations. Continued desire for more space in home and	adaptability and specific needs. Growth in health innovation and greater focus on public heath (vaccination and infection control measures)	Potential for housing market stagnation overall but some segments will be robust – typically wealthier segments and older households. Affordability poor but due to low incomes rather than rising prices. Commercial property sector may restructure e.g. need for fewer offices with greater home working, demand for more flexible workspaces from both companies and individual employees. Govt and Bank of England dealing with unprecedented levels of debt. May lead to inflation = increased cost of living, particularly for poorer households.	systems, transportation shifts. Boost for energy efficient housing e.g. Passivhaus due to combination of climate change concerns and desire for higher air quality and energy efficient homes. Resistance to poor quality, high density housing.	Opportunities for some enterprises/sectors as regulations change. Potential for political energy consumed by trade negotiations.

	Social trends	Technological trends	Economic trends	Environmental trends	Political trends
	outdoors – increased rate of extensions and home improvements.		Potential action on extent to which economy is leveraged (funded by debt). Individual banks may restrict or tighten lending to households whilst they are lending high levels to businesses under Government's business loan scheme. Overall, would reduce demand for home ownership by restricting availability of credit (similar to credit crunch).		
Long-term **5-10 years +**	Household growth dependent on pattern of migration (influenced by economic growth and any limits on movement post Brexit) and ability of new households to form (financial ability driven by jobs, incomes etc.). Growth likely to be moderated compared to past – knock	Major investment in high speed broad band to enable decentralised working. Continued digitisation of the economy, shifting online, power of internet companies consolidated.	Extent of recovery uncertain and likely to be some permanent damage/change or ongoing challenge e.g. managing spread of new variants/ vaccine resistant strains. Assumed that major model of market economies remains	Possibility of bans on car use (petrol and diesel) in residential areas, extending geography over time. Climate change impacts become more severe, deepening inequality between developed and developing	One or two general elections since 2019 with opportunity for change in political direction. UK politics still likely to be shaped by Covid-19 impacts (including Government debt) and new trade

	Social trends	Technological trends	Economic trends	Environmental trends	Political trends
	on lower demand for housing. Continued ageing of the population demanding housing solutions both mainstream and specialist. Potential for widening inequality if recession not countered by strong interventions to support poorer households – impact on health, wellbeing, educational outcomes etc. Polarisation of housing market between wealthier owners and insecure renters. Potential for growth in co-housing, co-operatives / other innovative models. Potential changes to demand for housing attributes e.g. less open plan – floorplans divided up to allow separate rooms for family members and to create privacy. Separate home office spaces. Rise in	Potential growth of autonomous vehicles - alternative use of parking space, road/street layouts. Electrical vehicle targets may force replanning of sites to accommodate charging points (depending on technology that emerges). Growth of machine learning and AI.	across most of world which is likely to mean return to 'normal' in terms of global trading, migration patterns etc. due to overwhelming economic incentives though some protectionist policies may return. Overall, likely to reduce economic growth. General recovery in housing market with transactions expected to return to a stable level (though may be lower than pre recession in some locations). Emerging certainty over relationship with other countries in terms of trade post Brexit. Mix of impacts, uncertainties and opportunities. If UK economic growth slower than other countries,	countries. Likely to fuel migration as people need to escape unsafe places or find economic opportunity. Locally, need to build more climate resilient housing. Continued resistance to housebuilding in general / support for green belt/ other designations. Shift towards more sustainable building materials and methods, though dependent on costs and viability if market still in recovery mode.	negotiations. Both require major reshaping of macro economy.

	Social trends	Technological trends	Economic trends	Environmental trends	Political trends
	clean spaces i.e. coat/boot rooms before entering house. Physical and mental health priorities recognised in housing e.g. light and airy properties, potentially adaptable – for multiple uses (i.e. work/study/dine/relax/sleep) and for multiple generations.		like to reduce immigration. Conversely, faster growth will lead to need for labour and economic incentives to move.		

Appendix 9 Trajectories for the two new options

Please Note: The assumptions, figures and tables in this appendix represent theoretical models for distribution based on the differing spatial scenarios and growth levels being tested by GCSP and their appointed consultants (for the sole purpose of testing the implications of differing options). They do not represent draft policy of GCSP or preferred strategies. In addition, AECOM has applied their own assumptions to help produce visual outputs for illustrative purposes only.

Preferred Option (Medium plus)

Summary of option

The preferred spatial strategy seeks to increase housing delivery rates at the existing new towns, including making best use of existing allocations for Northstowe and Waterbeach new towns where delivery extends beyond the plan period. North East Cambridge is the most notable new source of supply within Cambridge urban area. At North West Cambridge an additional 1,000-1,500 dwellings could be delivered at Eddington to make best use of an existing allocation. At the edge of Cambridge (outside of the Green Belt) Cambridge East has been selected as a preferred option as it is well connected to the city and has the potential to deliver a mix of homes and range of jobs, services and supporting infrastructure. The significant accessibility benefits offered by East West Rail, assuming proposals for a new railway line and Cambourne station reach a sufficiently advanced stage during the preparation stages of the Local Plan, is an opportunity to support a major expansion of Cambourne as part of the strategy for Greater Cambridge.

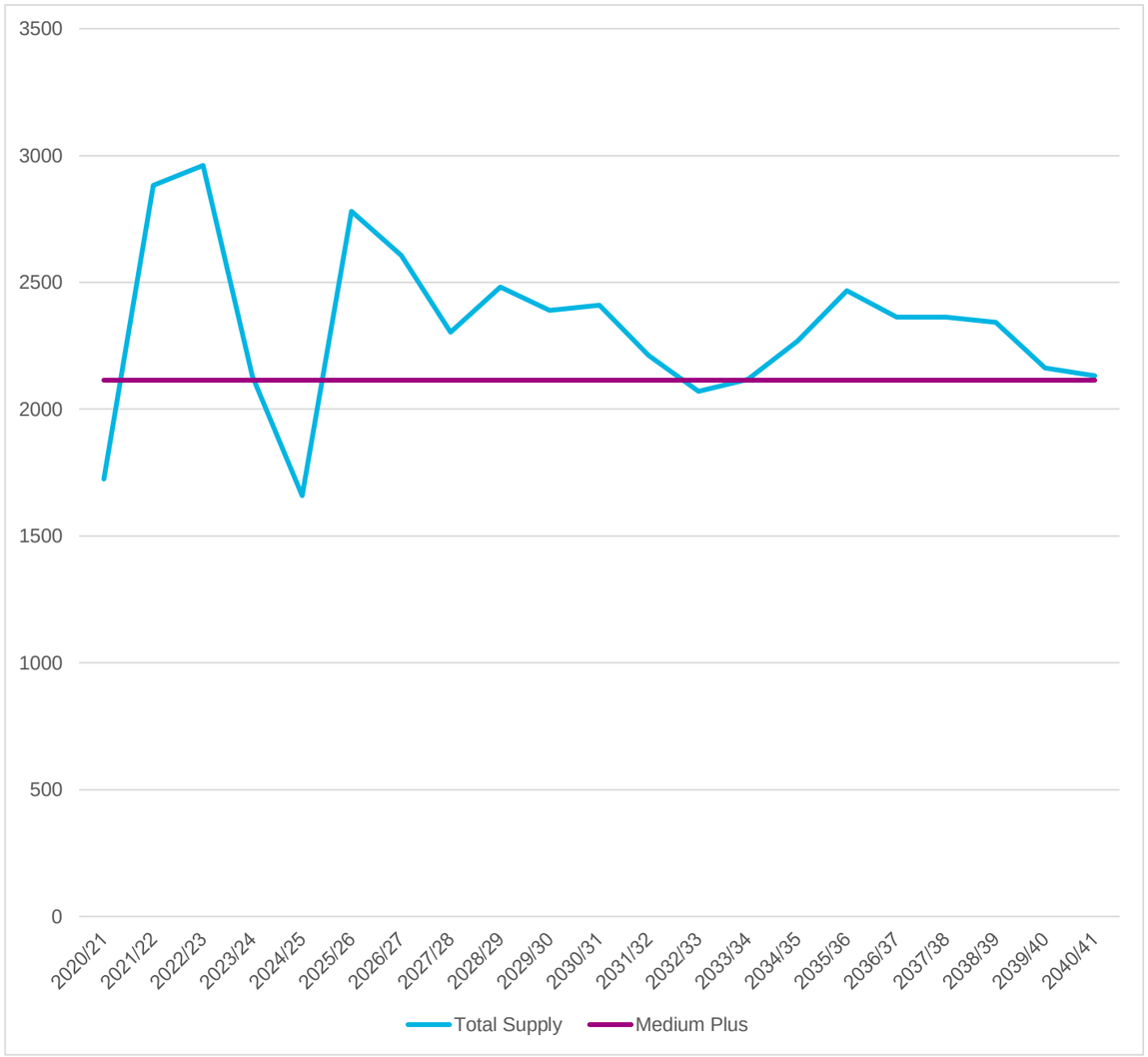
Medium plus:

- Northstowe (faster delivery rates)
- Waterbeach New Town (faster delivery rates)
- Densification (North East Cambridge, North West Cambridge and urban sites)
- Edge of Cambridge non-Green Belt (Cambridge Airport)
- Extension to Cambourne (East West Rail)
- Southern Cluster (approx. 600 dwellings)
- Dispersal to villages (approx. 900 dwellings, assumed as per Option 2b 1x300 dwellings and the rest 100 dwelling allocations)

Source	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	Total to 2041
Commitments	1492	2307	2121	1300	942	1406	1215	862	710	619	579	520	130	27	27	27	27	27	27	27	27	14419
Northstowe	232	345	395	345	187	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	6304
Waterbeach New Town	0	150	250	250	250	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	5700
Bourn Airfield	0	0	35	75	120	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	2630
Cambourne West	0	80	160	160	160	150	150	150	150	150	150	150	150	150	150	150	150	150	80	0	0	2590
Windfall (City)	0	0	0	0	0	185	185	185	185	185	185	185	185	185	185	185	185	185	185	185	185	2960
Windfall (South Cambs)	0	0	0	0	0	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	3840
Wellcome Genome Campus	0	0	0	0	0	0	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	1500
Uncertain Cambridge Allocations	0	0	0	0	0	0	-49	-49	-49	-49	-49	-49	-49	-49	-49	-49	-49	-49	-49	-49	-50	-736
Cambridge Urban Area	0	0	0	0	0	0	15	15	15	15	15	15	265	265	265	265	10	10	10	10	10	1,200
North East Cambridge	0	0	0	0	0	0	0	0	0	0	0	0	0	50	150	250	350	350	350	350	350	2,200
Cambridge Airport (safeguarded land)	0	0	0	0	0	0	0	0	0	0	0	0	0	50	150	250	350	350	350	350	350	2,200
Southern Cluster	0	0	0	0	0	0	0	0	100	100	100	100	100	100	0	0	0	0	0	0	0	600
One larger new settlement at Cambourne	0	0	0	0	0	0	0	0	0	0	0	0	0	50	100	150	200	250	300	300	300	1,650
New settlements on road network	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Source	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	Total to 2041
Villages total	0	0	0	0	0	0	0	0	230	230	190	50	50	50	50	50	0	0	0	0	0	900
Total (Completions and supply)	1724	2882	2961	2130	1659	2781	2606	2303	2481	2390	2410	2211	2071	2118	2268	2468	2363	2363	2343	2163	2132	48827
Medium Plus requirement	2114	2114	2114	2114	2114	2114	2114	2114	2114	2114	2114	2114	2114	2114	2114	2114	2114	2114	2114	2114	2114	44400
Comparison against Medium Plus	-390	768	847	16	-455	667	492	189	367	276	296	97	-43	4	154	354	249	249	229	49	18	4427
Cumulative delivery	1724	4606	7567	9697	11356	14137	16743	19046	21527	23917	26327	28538	30609	32727	34995	37463	39826	42189	44532	46695	48827	-
Cumulative requirement Medium Plus	2114	4223	6343	8457	10571.5	12686	14800	16914	19029	21143	23257	25372	27486	29600	31715	33829	35943	38057	40172	42286	44400	-
Rolling HDT	-	-	145%	152%	129%	126%	135%	147%	141%	137%	139%	134%	128%	122%	123%	131%	136%	138%	135%	131%	127%	-

Housing trajectory



Five-year housing land supply calculation at 1st April 2025 (assumed plan adoption)

Component	Step	Calculation	Number
(a)	Requirement from start of plan period (1st April 2020 - 31st March 2025)	2114.3 dpa x 5	10571.5
(b)	Forecast completions from start of plan period to plan adoption (1st April 2025)		11356.0
(c)	Shortfall/Surplus*	(a) - (b)	-784.5
(d)	5 year requirement + Shortfall/Surplus	(2114.3 x 5) + (c)	10571.5
(e)	Add 10% buffer	(d) x 1.10	11628.7
(f)	Annual target	(e) / 5 years	2325.7
(g)	Supply within first 5 years		12561.0
(h)	**Land supply**	(g) / (f)	**5.40**
(i)	Deficit / surplus	(g) - (e)	932

* N.B. the PPG (Paragraph: 032 Reference ID: 68-032-20190722) states that "Where areas deliver more completions than required, the additional supply can be used to offset any shortfalls against requirements from **previous** years". The PPG does not state that over-delivery in the past can be used to offset **future** supply, however neither does it state that it cannot be used to offset future supply. However, in line with the Secretary of State's recovered appeal decision at Oakridge, Highnam (APP/G1630/W/3184272) where he agreed with the Inspector that an over-supply from previous years should not be 'banked' so as to reduce the five-year housing target in future years, where a surplus has been calculated the value for row (c) above has been reduced to zero. It is noted that Tewkesbury Borough Council disagree with the Secretary of State's interpretation in the Highnam appeal regarding how over-supply is treated in a five-year housing land supply calculation and challenged it in the courts but as it was deemed "not justiciable" the courts did not decide one way or another on the issue. A definitive view on how over-supply is treated in a five-year housing land supply calculation has not been tested in the courts however in light of the approach taken by the Secretary of State and the Inspector in Oakridge and two other planning inspectors (APP/J0405/W/16/3158833 and APP/F4410/W/16/3158500) it is considered pragmatic to assume a worst case scenario that any over-supply cannot be used to reduce future five-year housing land supply requirements.

Commentary:

Factor	Commentary
Ability to deliver new homes	Additional supply in the mid-latter part of the plan period will enable delivery against the medium plus housing requirement. The Cambridge urban area, southern cluster and village sites are anticipated to deliver from plan adoption onwards into the middle of the plan period before the longer-term North East Cambridge, Cambridge Airport and Cambourne sites would be delivered. The option would enable the requirement to be met throughout the plan period apart from minor under-delivery in 2032/33. The supply is anticipated to deliver 10% more dwellings than the housing requirement over the plan period (on AECOM assumptions).
Stepped housing requirement	Not required as there is no step-change in delivery planned.
Market absorption including competition from similar sites	Cambridge Urban Area and urban extension sites would provide greater choice in the market throughout the plan period providing smaller units in a high demand location to complement the committed strategic sites, increasing market absorption. If Cambridge Airport and North East Cambridge were delivered concurrently it may result in a degree of competition, however there is considerable scope to ensure that the sites are sufficiently differentiated in terms of housing type and size to provide sufficient choice in the market. A similar point could also be made along the A428 corridor however the committed Bourn Airfield and Cambourne sites would be past their peak and starting to decline before peak delivery would be reached at a new Cambourne allocation.
House building capacity	This level of supply is consistently above historic trends, but not significantly so, which should be able to be accommodated by the housebuilding industry.
Five year housing land supply	A five-year housing land supply figure of 5.40 years is anticipated at plan adoption with a 10% buffer. The poor rate of delivery in 2020/21 could be removed from the plan period if the base date of the plan period is moved forward a year into 2021/22. The five-year housing land supply calculation is based on the Council's trajectory data for 2021/22 and 2022/23 where strong delivery is predicted against the requirement and may be adversely affected by COVID-19.
Meeting the small sites requirement	Concentrating development at sites within Cambridge urban area and also allocating sites at villages is likely to yield a number of sites that would meet the NPPF Paragraph 68 definition of "small sites", assisting with meeting the small sites requirement.
Housing Delivery Test	As the supply comfortably exceeds the minimum standard method the Housing Delivery Test will be passed in all years of the plan period.

Green Belt Hybrid (Medium plus)

Summary of option

The Edge of Cambridge: Green Belt blended strategy alternative is identical to the working assumption preferred option strategy except for the inclusion of residential development at Edge of Cambridge: Green Belt in place of development around Cambourne. The precise location of this Green Belt development is not specified.

Medium plus:

- Northstowe (faster delivery rates)
- Waterbeach New Town (faster delivery rates)
- Densification (North East Cambridge, North West Cambridge and urban sites)
- Edge of Cambridge non-Green Belt (Cambridge Airport)
- Edge of Cambridge Green Belt (non-site specific, but assumed 2x 1,000 dwelling allocations)
- Southern Cluster (approx. 600 dwellings)
- Dispersal to villages (approx. 900 dwellings, assumed as per Option 2b 1x300 dwellings and the rest 100 dwelling allocations)

Source	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	Total to 2041
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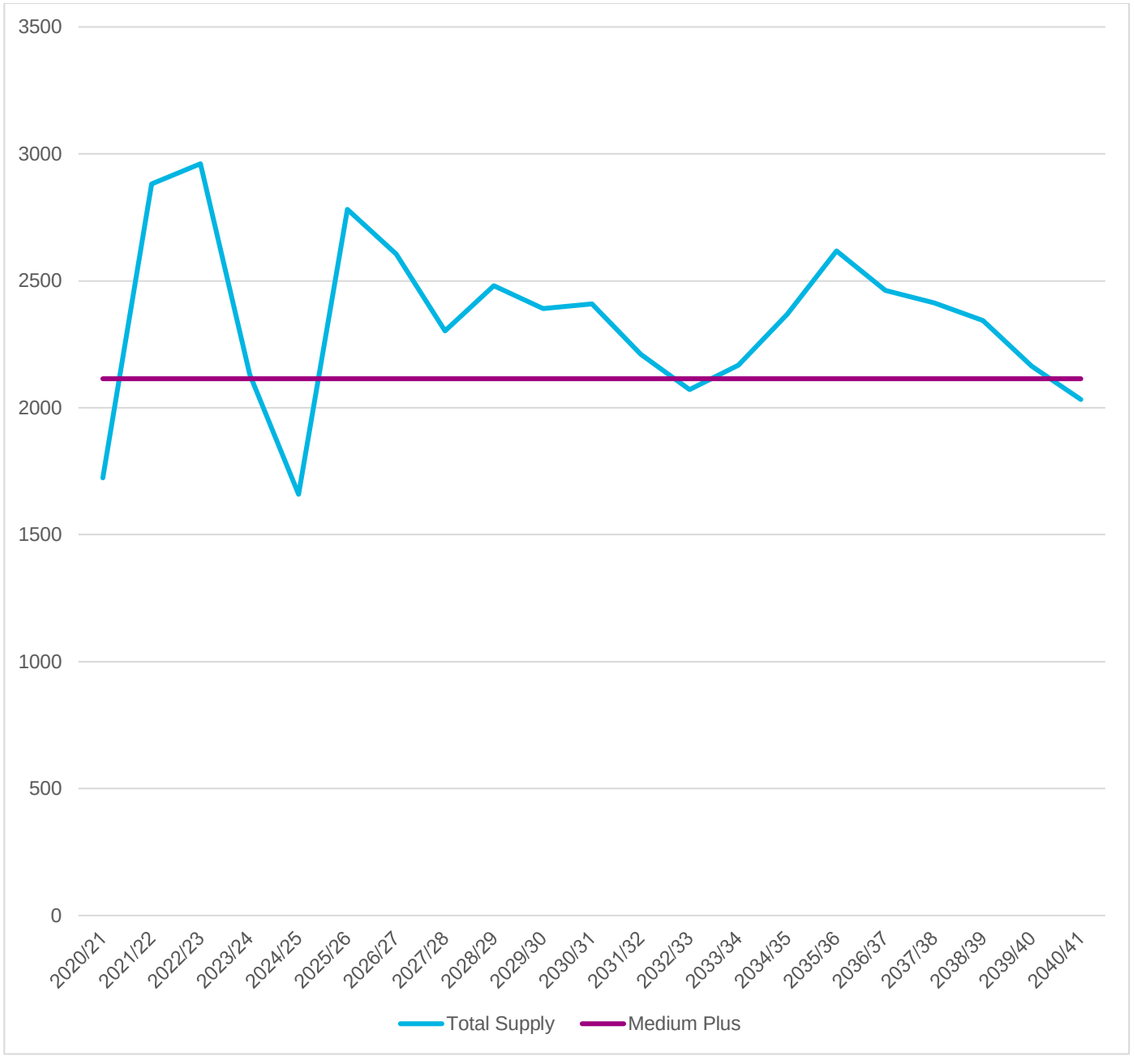
Northstowe	232	345	395	345	187	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	6304
Waterbeach New Town	0	150	250	250	250	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	5700
Bourn Airfield	0	0	35	75	120	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	2630
Cambourne West	0	80	160	160	160	150	150	150	150	150	150	150	150	150	150	150	150	150	80	0	0	2590
Windfall (City)	0	0	0	0	0	185	185	185	185	185	185	185	185	185	185	185	185	185	185	185	185	2960
Windfall (South Cambs)	0	0	0	0	0	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	3840
Wellcome Genome Campus	0	0	0	0	0	0	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	1500
Uncertain Cambridge Allocations	0	0	0	0	0	0	-49	-49	-49	-49	-49	-49	-49	-49	-49	-49	-49	-49	-49	-49	-50	-736
Cambridge Urban Area	0	0	0	0	0	0	15	15	15	15	15	15	265	265	265	265	10	10	10	10	10	1,200
North East Cambridge	0	0	0	0	0	0	0	0	0	0	0	0	0	50	150	250	350	350	350	350	350	2,200
Cambridge Airport (safeguarded land)	0	0	0	0	0	0	0	0	0	0	0	0	0	50	150	250	350	350	350	350	350	2,200
Southern Cluster	0	0	0	0	0	0	0	0	100	100	100	100	100	100	0	0	0	0	0	0	0	600
Edge of Cambridge	0	0	0	0	0	0	0	0	0	0	0	0	0	100	200	300	300	300	300	300	200	2,000
New settlements on road network	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Villages total	0	0	0	0	0	0	0	0	230	230	190	50	50	50	50	50	0	0	0	0	0	900
Total (Completions and supply)	1724	2882	2961	2130	1659	2781	2606	2303	2481	2390	2410	2211	2071	2168	2368	2618	2463	2413	2343	2163	2032	49177
Medium Plus requirement	2114	2114	2114	2114	2114	2114	2114	2114	2114	2114	2114	2114	2114	2114	2114	2114	2114	2114	2114	2114	2114	44400

Source	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	Total to 2041
Comparison against Medium Plus	-390	768	847	16	-455	667	492	189	367	276	296	97	-43	54	254	504	349	299	229	49	-82	4777
Cumulative delivery	1724	4606	7567	9697	11356	14137	16743	19046	21527	23917	26327	28538	30609	32777	35145	37763	40226	42639	44982	47145	49177	-
Cumulative requirement Medium Plus)	2114	4229	6343	8457	10572	12686	14800	16914	19029	21143	23257	25372	27486	29600	31715	33829	35943	38057	40172	42286	44400	-
Rolling HDT	-	-	145%	152%	129%	126%	135%	147%	141%	137%	139%	134%	128%	123%	126%	137%	142%	143%	138%	132%	125%	-

Housing trajectory



Five-year housing land supply calculation at 1st April 2025 (assumed plan adoption)

Component	Step	Calculation	Number
(a)	Requirement from start of plan period (1st April 2020 - 31st March 2025)	2114.3 dpa x 5	10571.5
(b)	Forecast completions from start of plan period to plan adoption (1st April 2025)		11356.0
(c)	Shortfall/Surplus*	(a) - (b)	-784.5
(d)	5 year requirement + Shortfall/Surplus	(2114.3 x 5) + (c)	10571.5
(e)	Add 10% buffer	(d) x 1.10	11628.7
(f)	Annual target	(e) / 5 years	2325.7
(g)	Supply within first 5 years		12561.0
(h)	**Land supply**	(g) / (f)	**5.40**
(i)	Deficit / surplus	(g) - (e)	932

* N.B. the PPG (Paragraph: 032 Reference ID: 68-032-20190722) states that "Where areas deliver more completions than required, the additional supply can be used to offset any shortfalls against requirements from **previous** years". The PPG does not state that over-delivery in the past can be used to offset **future** supply, however neither does it state that it cannot be used to offset future supply. However, in line with the Secretary of State's recovered appeal decision at Oakridge, Highnam (APP/G1630/W/3184272) where he agreed with the Inspector that an over-supply from previous years should not be 'banked' so as to reduce the five-year housing target in future years, where a surplus has been calculated the value for row (c) above has been reduced to zero. It is noted that Tewkesbury Borough Council disagree with the Secretary of State's interpretation in the Highnam appeal regarding how over-supply is treated in a five-year housing land supply calculation and challenged it in the courts but as it was deemed "not justiciable" the courts did not decide one way or another on the issue. A definitive view on how over-supply is treated in a five-year housing land supply calculation has not been tested in the courts however in light of the approach taken by the Secretary of State and the Inspector in Oakridge and two other planning inspectors (APP/J0405/W/16/3158833 and APP/F4410/W/16/3158500) it is considered pragmatic to assume a worst case scenario that any over-supply cannot be used to reduce future five-year housing land supply requirements.

Commentary:

Factor	Commentary
Ability to deliver new homes	Additional supply in the mid-latter part of the plan period will enable delivery against the medium plus housing requirement. The Cambridge urban area, southern cluster and village sites are anticipated to deliver from plan adoption onwards into the middle of the plan period before the longer-term North East Cambridge, Cambridge Airport and Green Belt sites would be delivered. The option would enable the requirement to be met throughout the plan period apart from minor under-delivery in 2032/33-2033/34 and 2040/41. The supply is anticipated to deliver 11% more dwellings than the housing requirement over the plan period (on AECOM assumptions).
Stepped housing requirement	Not required as there is no step-change in delivery planned.
Market absorption including competition from similar sites	Cambridge Urban Area and urban extension sites would provide greater choice in the market throughout the plan period providing smaller units in a high demand location to complement the committed strategic sites, increasing market absorption. If Cambridge Airport, North West Cambridge, North East Cambridge and any Green Belt sites were delivered concurrently it may result in a degree of competition, however there is considerable scope to ensure that the sites are sufficiently differentiated in terms of housing type and size to provide sufficient choice in the market.
House building capacity	This level of supply is consistently above historic trends, but not significantly so, which should be able to be accommodated by the housebuilding industry.
Five year housing land supply	A five-year housing land supply figure of 5.40 years is anticipated at plan adoption with a 10% buffer. The poor rate of delivery in 2020/21 could be removed from the plan period if the base date of the plan period is moved forward a year into 2021/22. The five-year housing land supply calculation is based on the Council's trajectory data for 2021/22 and 2022/23 where strong delivery is predicted against the requirement and may be adversely affected by COVID-19.
Meeting the small sites requirement	Concentrating development at sites within Cambridge urban area and also allocating sites at villages is likely to yield a number of sites that would meet the NPPF Paragraph 68 definition of "small sites", assisting with meeting the small sites requirement.
Housing Delivery Test	As the supply comfortably exceeds the minimum standard method the Housing Delivery Test will be passed in all years of the plan period.

Appendix 10 GCSP preferred option detailed housing trajectory

Introduction

The tables below break down the Councils' Preferred Options Housing Trajectory for the autumn 2021 consultation. The first table shows the Greater Cambridge Housing Trajectory (April 2021), the second table shows the adjustments as a result of the review of existing allocations, a review of the windfall allowance, and supply from Use Class C2 students and older peoples communal accommodation; the third table shows the trajectory for the additional site allocations; and the fourth table contains the combined trajectory from all sources.

Greater Cambridge Housing Trajectory (April 2021) (existing commitments)

Source	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	Total to 2041
Commitments excluding windfall allowance and the following strategic sites: North West Cambridge (Eddington), Darwin Green, Cambridge East, Cambridge Southern Fringe, Northstowe, Waterbeach New Town, Bourn Airfield New Village, Cambourne West and Wellcome Genome Campus	612	1,672	1,637	908	528	381	264	338	187	139	139	84	74	4	0	0	0	0	0	0	0	6,967
North West Cambridge (Eddington)	12	30	96	109	291	228	250	250	250	250	250	126	0	0	0	0	0	0	0	0	0	2,142
Darwin Green	58	55	59	61	150	200	200	200	200	200	200	200	200	200	200	95	0	0	0	0	0	2,478
Cambridge East	26	120	120	156	210	210	240	240	240	240	240	194	120	90	54	0	0	0	0	0	0	2,500
Cambridge Southern Fringe	183	116	60	60	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	453
Northstowe	204	278	365	342	344	312	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	5,595
Waterbeach New Town	0	0	80	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	4,580
Bourn Airfield New Village	0	0	0	35	75	100	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	2,460
Cambourne West	0	100	180	200	200	200	150	150	150	150	150	150	150	150	150	150	150	60	0	0	0	2,590
Wellcome Genome Campus	0	0	0	0	350	200	200	200	200	200	150	0	0	0	0	0	0	0	0	0	0	1,500
Windfall Allowance (Cambridge)	0	0	0	0	0	0	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	1,950
Windfall Allowance (South Cambs)	0	0	0	0	0	0	10	10	10	10	60	210	210	210	220	220	220	220	220	220	220	2,270
Total	**1,095**	**2,371**	**2,597**	**2,121**	**2,432**	**2,081**	**2,094**	**2,168**	**2,017**	**1,969**	**1,969**	**1,744**	**1,534**	**1,434**	**1,404**	**1,245**	**1,150**	**1,060**	**1,000**	**1,000**	**1,000**	**35,485**

Updates to housing trajectory

Source	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	Total to 2041
Adjustments to Windfall Allowance (Cambridge)	0	0	0	0	0	0	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	825
Adjustments to Windfall Allowance (South Cambridgeshire)	0	0	0	0	0	0	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	300
Adjustments to anticipated delivery from existing adopted allocations (Cambridge)	0	21	0	0	72	55	0	0	0	-4	-4	0	0	0	0	0	0	0	0	0	21	161
C2 students and older peoples communal accommodation (Cambridge, dwelling equivalent)	82	22	154	37	48	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	352
C2 students and older peoples communal accommodation (South Cambridgeshire, dwelling equivalent)	0	0	0	40	0	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75
Total	**82**	**43**	**154**	**77**	**120**	**99**	**75**	**75**	**75**	**71**	**71**	**75**	**75**	**75**	**75**	**75**	**75**	**75**	**75**	**75**	**96**	**1,713**

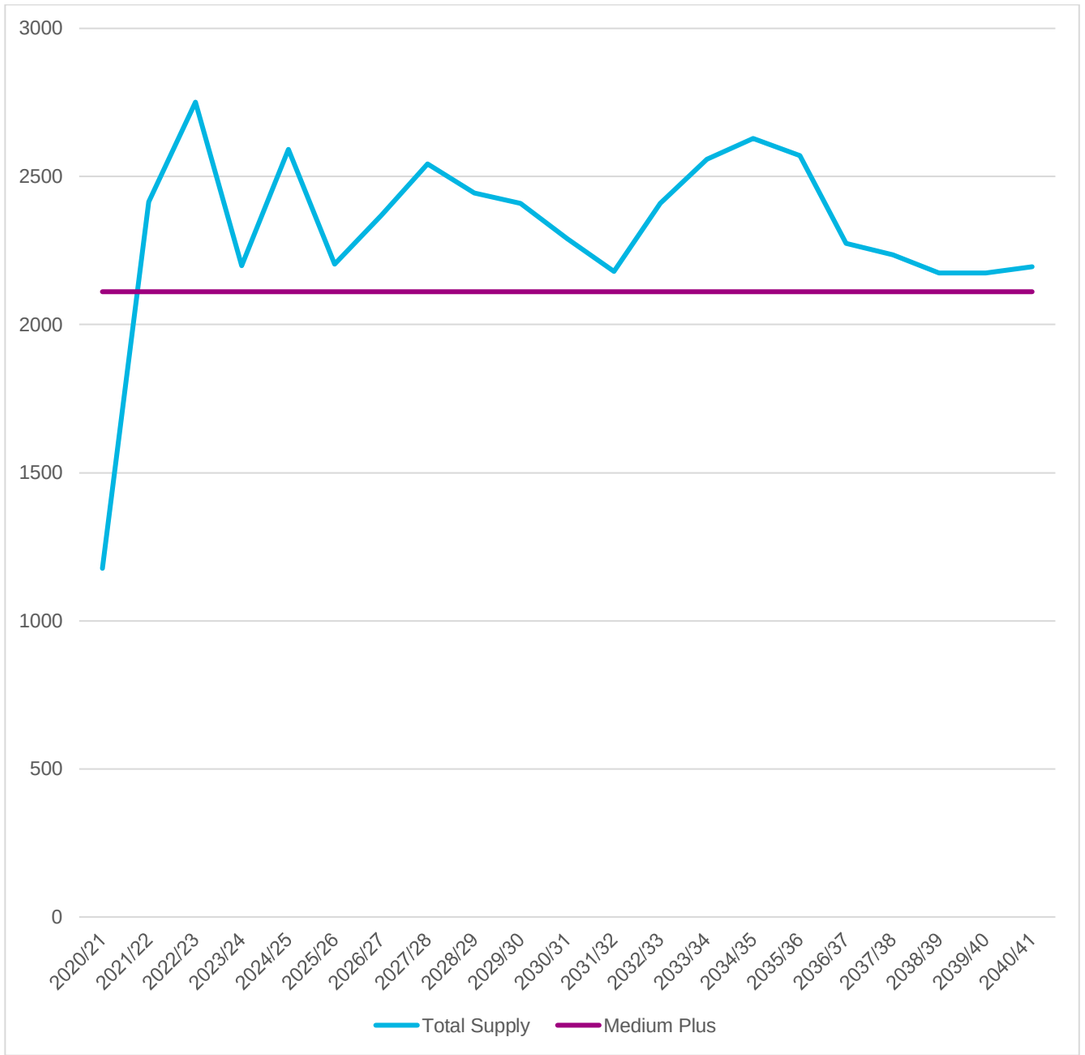
Additional sites

Source	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	Total to 2041
Faster delivery at Northstowe	0	0	0	0	0	0	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	750
Faster delivery at Waterbeach	0	0	0	0	0	0	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	750
Smaller sites in Cambridge urban area	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	12
North East Cambridge	0	0	0	0	0	0	100	200	200	150	50	150	250	350	350	350	350	350	350	350	350	3,900
North West Cambridge	0	0	0	0	0	0	0	0	0	0	0	0	250	250	250	250	0	0	0	0	0	1,000
Cambridge East	0	0	0	0	0	0	0	0	0	0	0	50	150	250	300	350	350	350	350	350	350	2,850
Cambourne Additional	0	0	0	0	0	0	0	0	0	0	0	0	50	100	150	200	250	300	300	300	300	1,950
Smaller sites in southern cluster villages	0	0	0	0	0	0	0	0	0	80	60	20	0	0	0	0	0	0	0	0	0	160
Smaller sites in rest of the rural area villages	0	0	0	0	40	24	0	0	40	40	40	40	0	0	0	0	0	0	0	0	0	224
Total	**0**	**0**	**0**	**0**	**40**	**24**	**200**	**300**	**352**	**370**	**250**	**360**	**800**	**1,050**	**1,150**	**1,250**	**1,050**	**1,100**	**1,100**	**1,100**	**1,100**	**11,596**

Full trajectory

Source	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	Total to 2041
Housing supply as included in the Greater Cambridge Housing Trajectory (April 2021)	1,095	2,371	2,597	2,121	2,432	2,081	2,094	2,168	2,017	1,969	1,969	1,744	1,534	1,434	1,404	1,245	1,150	1,060	1,000	1,000	1,000	35,485
Update to existing supply from review of existing sites, review of windfall allowance and student or older peoples accommodation	82	43	154	77	120	99	75	75	75	71	71	75	75	75	75	75	75	75	75	75	96	1,713
Faster delivery from existing sites or densification of existing sites	0	0	0	0	0	0	100	100	100	100	100	100	350	350	350	350	100	100	100	100	100	2,500
New sites	0	0	0	0	40	24	100	200	252	270	150	260	450	700	800	900	950	1,000	1,000	1,000	1,000	9,096
Total	**1,177**	**2,414**	**2,751**	**2,198**	**2,592**	**2,204**	**2,369**	**2,543**	**2,444**	**2,410**	**2,290**	**2,179**	**2,409**	**2,559**	**2,629**	**2,570**	**2,275**	**2,235**	**2,175**	**2,175**	**2,196**	**48,794**
Medium Plus requirement	2,111	2,111	2,111	2,111	2,111	2,111	2,111	2,111	2,111	2,111	2,111	2,111	2,111	2,111	2,111	2,111	2,111	2,111	2,111	2,111	2,111	44,331
Comparison against Medium Plus	-934	303	640	87	481	93	258	432	333	299	179	68	298	448	518	459	164	124	64	64	85	4,463
Cumulative delivery	1,177	3,591	6,342	8,540	11,132	13,336	15,705	18,248	20,692	23,102	25,392	27,571	29,980	32,539	35,168	37,738	40,013	42,248	44,423	46,598	48,794	-
Cumulative requirement Medium Plus	2,111	4,222	6,333	8,444	10,555	12,666	14,777	16,888	18,999	21,110	23,221	25,332	27,443	29,554	31,665	33,776	35,887	37,998	40,109	42,220	44,331	-
Rolling HDT	-	-	121%	141%	144%	134%	137%	136%	141%	141%	137%	132%	132%	137%	145%	148%	143%	135%	128%	126%	125%	-

Housing trajectory



Five-year housing land supply calculation at 1st April 2025 (assumed plan adoption)

Component	Step	Calculation	Number
(a)	Requirement from start of plan period (1st April 2020 - 31st March 2025)	2111 dpa x 5	10555.0
(b)	Forecast completions from start of plan period to plan adoption (1st April 2025)		11132.0
(c)	Shortfall/Surplus*	(a) - (b)	-577.0
(d)	5 year requirement + Shortfall/Surplus	(2111 x 5) + (c)	10555.0
(e)	Add 10% buffer	(d) x 1.10	11610.5
(f)	Annual target	(e) / 5 years	2322.1
(g)	Supply within first 5 years		11970.0
(h)	**Land supply**	(g) / (f)	**5.15**
(i)	Deficit / surplus	(g) - (e)	359

* N.B. the PPG (Paragraph: 032 Reference ID: 68-032-20190722) states that "Where areas deliver more completions than required, the additional supply can be used to offset any shortfalls against requirements from **previous** years". The PPG does not state that over-delivery in the past can be used to offset **future** supply, however neither does it state that it cannot be used to offset future supply. However, in line with the Secretary of State's recovered appeal decision at Oakridge, Highnam (APP/G1630/W/3184272) where he agreed with the Inspector that an over-supply from previous years should not be 'banked' so as to reduce the five-year housing target in future years, where a surplus has been calculated the value for row (c) above has been reduced to zero. It is noted that Tewkesbury Borough Council disagree with the Secretary of State's interpretation in the Highnam appeal regarding how over-supply is treated in a five-year housing land supply calculation and challenged it in the courts but as it was deemed "not justiciable" the courts did not decide one way or another on the issue. A definitive view on how over-supply is treated in a five-year housing land supply calculation has not been tested in the courts however in light of the approach taken by the Secretary of State and the Inspector in Oakridge and two other planning inspectors (APP/J0405/W/16/3158833 and APP/F4410/W/16/3158500) it is considered pragmatic to assume a worst case scenario that any over-supply cannot be used to reduce future five-year housing land supply requirements.