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Hyas

**North Essex Local Plans
(Section 1)
Viability Assessment Update**

Main Report

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A separate Viability Assessment Update Technical Appendix provides further information relating to:

- Assumptions & Data Sources
- Viability Assessments for all scenarios.

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Executive Summary

Overall Summary & Key findings

1. Viability assessment is a process of assessing whether a specific site can be considered to be financially viable, by looking at whether the value generated by a development is more than the cost of developing it. This includes looking at the key elements of gross development value, costs, landowner and developer returns.
2. This Viability Assessment Update Report considers the viability of the three proposed Garden Communities which are included in the shared Section 1 Local Plans prepared by the North Essex Authorities (Braintree District Council, Colchester Borough Council and Tendring District Council). It is an update of, and supplementary to, the previous Viability Assessment work published in 2017.
3. It has been prepared to address the matters raised through discussions at the Examination in Public in 2018 and incorporates updated and additional evidence that the North Essex Authorities have assembled in the intervening period. The study addresses the specific assumptions referenced by the Planning Inspector including the approach to contingencies, land costs, scheme financing and the pace of delivery.
4. There are many factors that will influence viability over time, and as such the analysis has considered a small number of high-level scenarios including a 'Reference Case' based upon current cost and value assumptions; 'Grant' related to securing funding from Government for early upfront strategic infrastructure, and 'Inflation' to recognise that over time all costs and values will be subject to inflation.
5. The overall key test of viability is to demonstrate sufficient competitive returns to landowners, developers and funders to incentivise them to bring land forward for development. Such returns must take into account the need for investment in strategic infrastructure and enable the delivery of policy compliant development, including appropriate levels of affordable housing. There are no fixed benchmarks as to what may be sufficient as sites such as the proposed Garden Communities have unique circumstances and infrastructure requirements incomparable to other schemes.
6. The analysis compares scheme costs against values to generate 'Residual Land Values' which can be considered as to whether they provide sufficient incentive beyond current, existing or acceptable alternative values for the land subject to potential redevelopment. The Garden Communities are proposed on predominantly greenfield land in agricultural use and are therefore of relatively low value.
7. The analysis demonstrates that all 3 proposed Garden Communities can be considered viable in that they are capable of producing Residual Land Values that will create significant uplift for landowners well in excess of existing/current values. This is

alongside generating sufficient profit for developers and investors to meet their requirements. With reference to each site assessed:

- The West of Braintree scheme produces the strongest position on viability under all modelled scenarios, due primarily to the area's strongest sales values;
 - Tendring Colchester Borders generates residual land values well in excess of existing use values, although the surpluses decrease when additional allowances for contingencies are at their highest. Should Grant be secured (such as via the current Housing Infrastructure Fund bid or any future equivalent funding opportunity) then viability is strong. Inflation would also have a major impact enhancing residual land values considerably;
 - The analysis shows that the Colchester Braintree Borders scheme is not capable of generating the required competitive returns to landowners under present day costs and values due primarily to the requirement for significant upfront investment in works to the A12. However, should the Housing Infrastructure Fund bid be successful (or wider Government funding secured) this would bring the site to a strong position. Inflation would have a major impact on this site and has the potential to drive significantly higher returns due to the longest delivery timescale.
8. The assessments reveal that for both Tendring Colchester Borders and Colchester Braintree Borders there is a degree of reliance on securing either Grant funding, and/or inflationary impacts. Such scenarios are both credible and realistic given the long history of Government support with infrastructure funding to enable housing growth, and trends in inflation over recent decades (including through periods of economic change and uncertainty).
9. It must also be recognised that the assessment work set out in this report presents a point in time consideration of viability that will need to be monitored and reviewed going forward. There will be a broad range of wider factors which will influence viability which may depress or enhance viability going forward. This study has taken a relatively prudent approach to many assumptions. Some aspects such as unforeseen costs or wider economic conditions may well depress viability. A wide range of other factors can improve viability over time such as enhanced value created through placemaking, construction cost efficiencies for example through the wider implementation of modular construction practices, inflation rates being higher than forecast, speedier delivery and ability to attract future Government investment.

Study Context

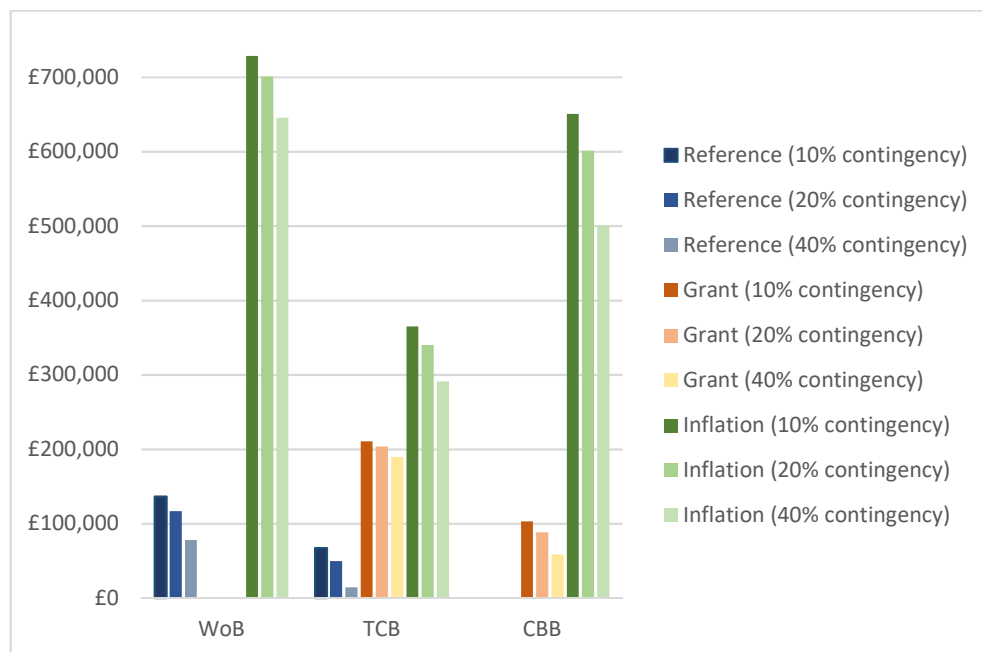
10. This North Essex Local Plans (Shared Section 1) Viability Assessment Update Report has been prepared by Hyas Associates Ltd to provide a comprehensive update of the previous assessment work prepared and published as part of the evidence base for the Shared Section 1 of the Local Plans for Braintree, Colchester and Tendring (collectively known as the 'North Essex Authorities').

11. As the core spatial component of the Shared Section 1, this Viability Assessment Update Report considers the viability of the three proposed Garden Communities namely the West of Braintree Garden Community, Colchester Braintree Borders Garden Community and Tendring Colchester Borders Garden Community.
12. The approach utilises the same viability model to enable consideration of 'residual land values' as a key measure of scheme viability. The models have been updated to provide additional functionality to reflect the full development timescales of the projects concerned and address issues and matters as considered via the Examination in Public hearing sessions, and subsequent correspondence received by the North Essex Authorities (NEA) from the Planning Inspector in June 2018.
13. In light of the time since the original assessment was undertaken (with the previous assessment considering information available from 2016/2017) a number of important assumptions have been reviewed, reconsidered and updated in light of more up to date information and additional evidence that has been assembled by the North Essex Authorities. This has included key aspects such as assumptions relating to residential sales values, build costs, strategic infrastructure costs, anticipated build out rates, treatment of contingencies, developer profit rates, and the consideration of inflation.
14. Since the previous assessment was prepared, the Government has issued updated national planning policy and practice guidance specific to the consideration of viability. The shared Section 1 Local Plans will continue to be considered against policy and practice guidance relevant at the time of Submission of the Local Plans (i.e. before the updated material became available), but it is appropriate for this Viability Assessment Update to be aware of key changes, as viability will need to remain a live process that will be subject to ongoing review and consideration as proposals evolve into the future. The updated policy and guidance provides further clarity and direction to the consideration of matters such as the treatment of benchmark land value. It also aims to standardise the approach to viability testing, which will be of direct relevance to the approach in North Essex through the production of future site specific Development Plan Documents and consideration of future planning applications.
15. Given the early stage of concept evolution of each of the proposed Garden Communities, the approach remains strategic in nature, which in line with policy & guidance is proportionate and pragmatic in its approach. The assessments draw upon the most up to date set of data sources and assumptions and continue to present a general consideration of viability based upon the best available evidence. They examine the viability of illustrative concepts together with a wider range of sensitivity and scenario testing to provide a broad overview of viability under alternative circumstances. The results are highly sensitive to the assumptions underpinning the analysis, which undoubtedly will be subject to change over time.

Viability of the Garden Communities

16. The core measure of viability entails a comparison of residual land values (after consideration of all scheme costs and values) to existing or realistic alternative values, to assess whether there is sufficient competitive uplift to incentivise landowners to bring sites forward for development. In addition, the models need to accommodate sufficient returns for developers to incentivise them to undertake direct construction activity.
17. As the Garden Community sites are greenfield in nature and in agricultural use, existing use values will be circa £10,000 per gross acre, with limited scope for alternative uses. Figure ES1 below sets out the summary findings of the Viability Assessment Update, illustrating the residual land values related to the various sites and scenario tests undertaken, which can be compared to such existing use values.

Figure ES1 Summary Residual Land Values by Scenario



18. The assessments reveal the following in relation to each of the proposed Garden Communities.
 - **West of Braintree Garden Community.** Under the Reference Case Scenarios residual land values range from £136,509/acre with 10% contingencies to £77,946/acre at 40% contingencies. The inflation scenarios all produce considerably higher residual land values beyond existing use values across all contingency rates, driven in part by the higher initial sales values and timescale of the development programme across over which inflation is compounded. No scenarios have been prepared to test the impact of securing Government grant funding for infrastructure as there are no live funding bids being considered.

- **Tendring Colchester Borders Garden Community.** Under the Reference Case Scenarios residual land values range from £67,394/acre at 10% contingencies to £14,529/acre at 40% contingencies. Should the current bids for Government funding via the Housing Infrastructure Fund be successful, residual land values would be lifted to between £210,504/acre at 10% contingencies to £189,411/acre at 40% contingencies. Inflation scenarios again produce considerably higher residual land values, albeit lower than the other sites due to the Garden Community having the lowest scale of development and shortest delivery timescale across which costs & value growth is compounded.
 - **Colchester Braintree Borders Garden Community.** The analysis indicates that under the Reference Case Scenarios the cashflow would be negative and therefore not achieve Existing Use Values. Should the current bids for Government funding via the Housing Infrastructure Fund be successful, residual land values would be lifted to between £102,913/acre at 10% contingencies to £58,702/acre at 40% contingencies. Inflation scenarios again produce considerably higher residual land values, which are strong due to the overall length of delivery timescale and application of cost and value growth over a considerably longer timeframe than the other 2 Garden Communities.
19. Additional analysis has been undertaken to consider returns in respect to the 'Internal Rate of Return' for any prospective master-developer and/or scheme funders taking account of the time/value of money through a discounted cash flow approach. This illustrates that rates of circa 7-10% are achievable based upon the scenarios as modelled which will exceed the anticipated average cost of finance.
 20. The test of viability is based upon the judgement of the achievability of such residual land values and consideration as to whether these provide suitable incentive to landowners to bring land to the market. There are no equivalent benchmarks against which such a judgement should be strictly applied, and it is not considered appropriate to define an arbitrary approach aligned with approaches from elsewhere which can not be considered as suitably comparable or relevant to the scale or context of the 3 Garden Communities under assessment.
 21. Consideration should therefore focus upon comparison to existing use or alternative uses for the sites that may be considered feasible. Agricultural land in the area is worth in the order of £10,000/acre and therefore sets a lowest possible benchmark for consideration. However judging viability against the equivalent existing use value does not recognise the need to incentivise landowners sufficiently for them to bring their land to market. It is difficult to accurately predict Alternative Use Values across the full site areas, although given the general location of the sites, they are generally unsuitable for redevelopment unless it was for large scale comprehensive redevelopment with associated infrastructure provision. The North Essex Authorities have the sites in the Shared Section 1 on the basis that such an approach is considered the most suitable. It therefore becomes a judgement as to the prospect of securing values in excess of any realistic alternatives.

22. The Viability Assessment Update has considered the various scenarios and shown under what conditions and circumstances certain scales of uplift can be achieved. The ultimate position cannot be fully predicated at this stage of the process, and an ongoing process of viability review will be needed to test proposals going forward.
23. The current analysis indicates that the West of Braintree scheme produces reasonably strong residual land values under the Reference Case scenarios even with the highest consideration of contingencies, with inflation driving far higher values over time.
24. Tendring Colchester Borders has lower residual land values, and the Reference Case indicates that higher contingencies would start to drive these down to a level akin to Existing Use Values. Should the current live Housing Infrastructure Fund bid be successful this would bring the site to a far stronger position. As per West of Braintree, inflation would also generate strong values.
25. Delivery of the 21,000 unit Colchester Braintree Borders is not capable of meeting Existing Use Values plus sufficient premium under present day costs and values and without investment to enable the implementation of upfront strategic infrastructure. However should the Housing Infrastructure Fund bid (or any future equivalent funding opportunity) be successful this would bring the site to a far stronger position. The impact of inflation would have a significant impact on this site and has the potential to drive significantly higher returns.

Wider considerations & influences

26. It is important to acknowledge that the judgement of viability ought also reflect on wider factors which will influence viability, and the position taken within this Viability Assessment Update which may change the analysis over time. Aspects which may depress or enhance viability going forward should also be born in mind when making an ultimate judgement over the potential residual land values that may be achievable and the associated consideration of long-term viability. Such further considerations will include:
 - The impact of any property market downturn and/or economic shocks which may depress sales values and/or reduce market demand and the associated build out rate. Historical trend analysis can provide some context to the likelihood and extent of such issues, with the property market over time showing a degree of resilience and growth to overcome time limited market corrections;
 - Currently unforeseen or underestimated costs. The schemes are at relatively early stages in terms of the technical design and therefore the range and scale of costs may not as yet be appropriately identified. This requires appropriate consideration for potential cost over-runs as well as ongoing adjustments to reflect future occupier/consumer behaviour and technological change (for example influencing movement and associated transport implications). There may

also be changes in construction practices which may reduce costs, such as through modular construction which could have a significant impact on future build costs;

- The impact of quality placemaking which may well deliver a value premium over and above values currently being considered. Any enhanced sales values would improve overall viability;
- Cost or value inflation not being consistent. A relatively prudent approach has been taken within this Viability Assessment Update within the inflation scenarios which assumes value growth matches but does not exceed cost inflation. This is inconsistent with historical data and trends, albeit there can be no assurance that such trends would continue indefinitely into the future. Should sales values outpace costs this will have a significant impact on viability, with the converse also being true;
- The assessments have incorporated the current view on scheme delivery rates, which is in part informed by historical evidence and projects not truly comparable in scale or kind to the sites subject to this study. Any improvements in delivery rates would have a considerable impact on viability through reducing the development programme and overall financing costs. Site promoters are likely to intend to deliver the sites at a faster rate than as assumed within this study;
- The delivery model itself which may enable more efficient scheme delivery. For example, development may come forward under build under licence / lease arrangements to streamline delivery processes and enable savings such as through tax efficient approaches;
- There have been numerous funding initiatives implemented by Government in recognition that large scale strategic growth has additional challenges, in particular in relation to the need for early funding and delivery of strategic infrastructure. This includes initiatives such as the Local Infrastructure Fund, Large Sites Infrastructure Fund, Home Building Fund and the more recent Housing Infrastructure Fund. Given the importance of improving housing supply, and an ongoing recognition of the significance of delivery from large sites, it is reasonable to anticipate that such funding opportunities would continue to emerge over time to address any particular challenges as they may occur.

27. In conclusion, this Viability Assessment update report provides a comprehensive review of the current viability position across the sites, and addresses the issues and matters raised through the Examination in Public. It sets out the range of scenarios and resulting residual land values to enable consideration of viability.
28. It sets out that when considering the overall costs and values over the lifetime of the projects, residual land values are generated through the various scenario tests which are well in excess of Existing Use Values and can be considered to provide a sufficient return (premium) beyond reasonable alternatives to stimulate the market. The sites can be considered viable under a number of rational and reasonable defined scenarios.

1. Introduction

- 1.1 Braintree District Council, Colchester Borough Council and Tendring District Council (referred to as the 'North Essex Authorities') are in the process of preparing new Local Plans which will set out planning policies for the respective Council areas up to 2032/33. Each plan contains a shared strategic 'Section 1' which sets out strategic policies on matters relating to housing, transport, employment and includes 3 site based proposals to be brought forward as Garden Communities.
- 1.2 Hyas Associates Ltd prepared the North Essex Local Plans (Section 1) Viability Assessment (Main Report & Appendices) in April 2017 to test the viability of policies as set out in this shared strategic Section 1, in line with the requirements of the National Planning Policy Framework and other key guidance and best practice in relation to plan making and viability.
- 1.3 As the identification of three Garden Communities (West of Braintree Garden Community, Colchester Braintree Borders Garden Community and Tendring Colchester Borders Garden Community) was the prime spatial aspect of Section 1, the Viability Assessment focused upon the consideration of each of the sites under a number of potential scenarios and sensitivity tests. Given the early stage of concept evolution of each of the proposed Garden Communities, the study was strategic in nature, which in line with established policy & guidance was proportionate in its approach as proposals were still in early stages of their design.
- 1.4 The Viability Assessment was considered as part of the Examination in Public into the Shared Section 1 with Hearings taking place in January and May 2018.
- 1.5 Following the close of the Hearings, the Inspector set out initial findings in a letter dated 8th June 2018 to the North Essex Authorities, which identified a range of issues and matters that required further consideration and attention. This included matters relating to viability.
- 1.6 Furthermore since the 2017 Viability Assessment was prepared the Government has published revised policy and guidance through the National Planning Policy Framework (NPPF) and replaced sections of the Planning Practice Guidance (PPG) that relate to viability. Whilst the Examination of the shared Section 1 is being undertaken against the previous NPPF and PPG guidance (as it was submitted for inspection prior to the new material coming into effect), the more recent material provides additional clarification to matters set out previously, and will in any event be relevant to future plan making with respect to Development Plan Documents and the determination of planning applications. It therefore provides additional material of relevance with respect to the interpretation of policy and the direction of travel against which any future planning and viability processes will need to be considered.

- 1.7 This Viability Assessment Update Report has been based upon the previous analysis contained in the April 2017 Assessment. It considers additional evidence and revised assumptions, and addresses the matters raised by the Inspector in his correspondence of 8th June 2018.
- 1.8 This Viability Assessment Update contains new and additional analysis and should be read alongside the original 2017 Viability Assessment. It is supplementary to the previous work and has been prepared to inform the Council's consideration of viability as part of an iterative process of plan-making.
- 1.9 As per the original Viability Assessment the overall aim of this Viability Assessment Update remains the same in that it provides evidence on scheme viability, as part of the wider evidence base to enable consideration of the deliverability of the Shared Section 1 Local Plans as a whole.

Context & General Approach

- 1.10 Understanding the viability of development is an important requirement of the planning system. It is a key factor in the overall assessment of the deliverability of plans and planning policies.
- 1.11 Critical to determining financial viability is the vision of the place that is to be created, the land use policies that set out acceptable land uses together with the associated infrastructure requirements. Key stakeholders must have a good understanding of the cost and value implications of decision making from an early stage.
- 1.12 This is particularly important in relation to the largest and most strategic sites such as the proposed Garden Communities across North Essex, as these sites will be of key significance in addressing future housing needs, as well as creating quality places for the future.
- 1.13 The approach to the Garden Communities has rightly been subject to scrutiny and examination at the Hearing sessions in January and May 2018 and the Inspector has specifically acknowledged the importance of viability. The June letter sets out the matters which the Inspector considered required further consideration going forward.
- 1.14 Given the early stage of concept evolution of each of the proposed Garden Communities, the approach remains strategic in nature, which in line with policy & guidance is proportionate and pragmatic in its approach.
- 1.15 This Viability Assessment Update draws upon the most up to date set of data sources and assumptions available and continues to present a general consideration of viability based upon the best available evidence. The approach examines the viability of concepts together with a wider range of sensitivity and scenario testing to provide a broad overview of viability under alternative circumstances.

- 1.16 Central to the methodology and approach applied through this study is the concept of residual land value, which is a recognised approach to viability assessment for projects of this nature and at this stage of the process. Residual land value is the value that can be attributed to land, after the total cost of construction and development activity, including all associated costs (fees, profits, finance, contingency, etc.) are deducted from the end value. When the residual land value is equal or above that deemed sufficient to provide a competitive return to sufficiently incentivise landowners and developers, the project can be considered to be 'viable'.
- 1.17 The Viability Assessment has continued to be undertaken using the 'Garden City & Large Sites Model' (GCLS Model) originally developed within the Advisory Team for Large Applications (ATLAS) in the Homes & Communities Agency (HCA). The GCLS Model is based upon a 'master developer' approach, which involves one lead organisation (the master developer) who would be responsible for strategic investment in enabling works and strategic infrastructure. This would then enable plot developers (such as a range of different housebuilders and other developers) to buy serviced land and undertake the actual building work. Strategic costs are set against land receipts to derive the overall scheme viability.
- 1.18 The analysis has been supplemented by consideration of project 'Internal Rate of return' (IRR), as a further metric that can evaluate the viability of such long-term projects.

Scope of this Viability Assessment Update

- 1.19 This reports sets out the following key information:
- Key outcomes from the Examination in Public and matters raised by the Inspector with respect to viability;
 - A recap of the key aspects of policy against which this Viability Assessment Update is to be considered and the latest national planning policy and guidance relevant to testing viability at plan making stage and beyond;
 - An overview of the updated assumptions used in the viability assessments and key changes since the 2017 work; and
 - The results of the updated viability assessments comparing end values against project costs, to provide an overall assessment of viability.
- 1.20 The approach is intended to ensure all relevant information is placed in the public domain to enable full consideration and further scrutiny, given the importance of viability and deliverability to the plan making process. The North Essex Authorities recognise the significance of the proposals to all stakeholders, including local communities, and have therefore sought to make such information available in an open format for all to engage with and consider.
- 1.21 This reports is presented across 2 main volumes:

- Main Update Report (this report): to set the context to the study, its relationship to national & local policy, summary of updated assumptions and key findings;
- Technical Appendices: Further detail on assumptions and data sources alongside the viability cashflows for all scenarios tested.

Relationship to other evidence studies

1.22 Any Viability Assessment is an assimilation of data, information and assumptions drawn from a wide range of themes provided across a number of technical specialisms. The 2017 Viability Assessment drew from a broad range of information and technical studies prepared as part of the wider evidence base for the Local Plans as was available in 2017. The following studies were particularly significant:

- **The Garden Communities Concept Feasibility Study** (AECOM & Cushman & Wakefield, 2016). This study provided broad context to potential scales of development, constraints, opportunities & infrastructure needs. The study also provided context to the local property markets and addressed key assumptions to be taken forward in testing viability including market values, build costs, profit levels, finance costs and land value benchmarks;
- **North Essex Garden Communities Valuation Advice** (Cushman & Wakefield, 2017). This study provided further commentary and consideration of the property market in relation to strategic land and potential delivery of Garden Communities;
- **Concept Frameworks** for Colchester Braintree Borders Garden Community, Tendring Colchester Borders Garden Community, and the West of Braintree Garden Community, Concept Framework (AECOM & David Lock Associates, 2017). These studies provided further definition to the scale and form of development on each of the sites;
- **Infrastructure Delivery Plan** (Troy Planning, 2017). This study drew together infrastructure implications relating to the Local Plans.

1.23 Separate but related to this study, the Councils commissioned a North Essex Authorities Section 2 Viability Assessment (Troy Planning & 3 Dragons, 2017). This study focussed on the Section 2 (local) aspects of the Local Plans considering whole plan viability considerations relating to other allocations and proposals across the area. The Section 2 study considered different typologies of sites across a broader range of locations and contexts, and with reference to detailed policies set out in individual Local Plans. As such there were some differences in approach and assumptions between the 2 studies, although both were prepared in tandem and with close working and consideration.

1.24 Further to the Hearings and receipt of the June letter from the Inspector, the North Essex Authorities have assembled additional evidence to address wider matters and

provide an up to date position across a number of assumptions. Key additional information of relevance to this study include:

- **Infrastructure Planning Phasing & Delivery Study** (AECOM 2019). This study has provided an indicative view of scheme phasing and informed consideration of strategic infrastructure provision and its timing, and updated the conceptual design work to align with changes to infrastructure alignments and spatial considerations since the original site specific Concept Frameworks;
- **North Essex Garden Communities Infrastructure Order of Cost Estimate** (Gleeds, 2019). This study provides an updated position on infrastructure costs relating to the delivery of the Garden Communities;
- **Build out Rates Topic Paper** (NEA, 2019). This paper provides an analysis of potential build out rates across the Garden Communities; and
- **North Essex Rapid Transit Study** (Jacobs, 2019). This study provides a more detailed consideration of Rapid Transit, including routes, typology of service, infrastructure interventions, costs and timing of provision.

1.25 The approach has drawn from the best available evidence, across a broad range of technical disciplines and professional inputs. Given the status of the projects, much of this information can still only be assumptions at this stage, and hence the assessment of viability for schemes of this nature will need constant review as further information becomes available and as the projects progress (subject to the outcome of the Examination process) to the preparation of Development Plan Documents and on into development management and the consideration of planning applications.

2. Key Outcomes from the NEA Shared Section 1 Local Plans Examination in Public

- 2.1 The North Essex Authorities submitted Local Plans for examination in October 2017, and hearing sessions were held in January and May 2018. The Inspector wrote to the North Essex Authorities on 8th June 2018, and set out interim findings in respect of the Section 1 Local Plan including legal compliance, the approach to strategic policies and the Garden Communities.
- 2.2 With respect to the Garden Communities, the Inspector acknowledged the ambitions of the North Essex Authorities to bring forward high quality, sustainable communities that can accord with garden city principles. The Inspector also made reference to the strategic significance of the proposals and the need to test that they can be justified and were realistic:

“The GCs are identified as broad locations on the submission policies map. But it is clear from the content of policies SP7, 8, 9, & 10 [hereafter: “the GC policies”] that the submitted Section 1 Plan, if adopted, would establish both the in-principle acceptability of, and many of the specific requirements for, the proposed GC developments. Follow-on plans are intended to set out the principles of design, development and phasing for each GC, but it is this examination which must determine whether or not the GC proposals are properly justified and realistically developable. This is of more than usual importance given the large scale and long-term nature of the GC proposals, two of which will take around 30 years to complete and the other at least 40 years”

Letter from Inspector dated 8th June 2018 (para 30)

General Approach to Viability

- 2.3 The Inspector included a section on viability within his letter. This begins with the following commentary, which acknowledges the ‘strategic’ nature of the work in light of the early stage of proposals, the residual valuation approach and importance of assumptions. The commentary accepts that generally reasonable assumptions had been adopted with respect to a broad range of key inputs, whilst also flagging areas which needed further attention.

62. The most recent assessment of the GCs’ financial viability before me is the April 2017 Viability Assessment by Hyas [“the Hyas report”]. The assessment was conducted at a strategic level, appropriate to the relatively early stage of evolution of the GC proposals. It follows the residual valuation method, in which all the costs of undertaking the development – apart from the land cost – are subtracted from the development’s total sale value. The resulting figure is the

residual value. If the residual value is at least equal to the cost of acquiring the land needed for the development, then the development can be said to be viable.

- 63. For reliance to be placed on the outcome of the assessment, well-founded assumptions need to have been made about both the likely costs and value of the development, and about the cost of acquiring the land.*
- 64. In terms of costs and value, the Hyas report makes generally reasonable assumptions about development mix and value, and about land preparation, construction and utilities costs, and developer profit. However, as explained below it does not deal adequately with transport infrastructure costs, land purchase and interest, or contingency allowances.*

Letter from Inspector dated 8th June 2018 (para 62-64)

- 2.4 The Inspector went on to provide comments across a number of key themes, noting the findings of the Hearings and identifying specific matters requiring additional work.

Approach to transport infrastructure costs

- 2.5 The Inspector accepted most assumptions on infrastructure, but noted that certain transport matters required greater analysis and evidence to ensure that appropriate allowances were being considered as part of the Viability Assessments.

- 65. The evidence provided to support the Hyas report – including additional information from the AECOM Social Infrastructure Model – shows that costings for most items of infrastructure were arrived at in a consistent and logical manner and are generally reasonable.*
- 66. However, as noted above the proposals for a rapid transit system, the provision of which is essential to the successful development of the GCs, are still at a very early stage. According to the NERTS, the capital costs of the scheme range between £249m and £1,672m (including a prudent 64% optimism bias allowance) depending on which option is eventually chosen. The direct and indirect RTS contributions allowed for in Hyas’s baseline appraisals for the three GCs appear unlikely to meet even the lowest of those figures. Nor has any clear evidence been provided to show that the balance of the RTS’s capital costs could be funded from other sources.*
- 67. Consequently, it is by no means clear that adequate allowances for the costs of necessary transport infrastructure have been built into the viability assessment. To ensure that the viability assessment reflects the actual cost as closely as possible, the relevant figures should be reviewed when the rapid transit system proposal is further advanced and more accurate information is available on its likely cost.*

68. *If any additional contributions from the GCs, apart from those already included, are expected towards the A12 widening or the A120 dualling scheme, they would also need to be allowed for in the viability appraisal.*

Letter from Inspector dated 8th June 2018 (para 65-68)

Approach to land purchase and interest

- 2.6 The Inspector flagged the issue of land purchase costs and related finance charges. The original 2017 Viability Assessment had generated a residual figure that would be available for land purchase. It had not defined when or how such purchase would occur on the basis that there could be a wide range of alternative approaches depending upon the individual needs of each landowner and any negotiated commercial terms.
- 2.7 The Inspector considered that a clearer understanding would be needed to be able to test overall viability and deliverability, recognising that landowners will seek to extract a return during the development period, and that an appropriate finance rate would need to be applied to any additional borrowing.

69. *The Hyas report uses a financial model, developed by ATLAS , based on a “master-developer” model of delivery. In this model the master developer acquires the development land and undertakes strategic investment in enabling works and strategic infrastructure, before selling on the serviced plots to individual housebuilders or commercial developers to build them out. Interest on borrowing to fund the strategic investment, and a financial return to the master developer on that investment, are built into Hyas’s viability assessment.*

70. *It is unclear whether the 6% interest figure assumed for strategic investment borrowing is justified, having regard to the legislation on state aid as highlighted in the advice to the NEAs by PwC . Further clarification on this point is necessary.*

71. *More importantly, however, no allowance is made in the Hyas appraisal for interest on borrowing to fund land purchase by the master developer. The Harman report Viability Testing Local Plans (June 2012) specifically warns against overlooking interest costs on land purchase. Given the scale and duration of the GC development programme, those costs will be substantial. In their response to Government on the New Towns Act 1981 (Local Authority Oversight) Regulations, the NEAs themselves refer to “significant land costs which will be largely debt-funded in advance of land receipts”.*

72. *In order to take account of land purchase interest costs, the residual values shown in Hyas’s summary tables 5.3.1, 6.3.1 and 7.3.1 would need to be discounted by an appropriate amount. That would require assumptions to be made about the timing of land purchase and disposal. For example, the earlier GC viability work by AECOM assumed that land would be purchased in tranches two years before it was required for development.*

73. Until Hyas's residual values have been adjusted to take account of the substantial cost of interest on land purchase, no reliance can be placed on them as an indication of the viability of the proposed GCs.

Letter from Inspector dated 8th June 2018 (para 69-73)

Consideration of contingencies

- 2.8 The approach to the 2017 Viability Assessment had been to present a series of scenario tests based upon a combination of higher potential costs based upon alternative rates of contingency and of sales values to reflect premiums due to quality placemaking. With respect to contingency, certain infrastructure items had been costed including allowances for risk/contingency. Scenario tests had applied additional contingency of up to 10% across all identified infrastructure items and anticipated planning obligations to provide an additional contingency 'cushion'. This was applied across all strategic infrastructure cost items, irrespective of whether they have already accounted for an element of contingency or whether they are relevant to have an additional contingency consideration added. This provided further flexibility to address different degrees of risk between different types of infrastructure.
- 2.9 The note and separate NEA Hearing Statement also referenced the relationship between assumptions on scheme profit and risk, with this providing an additional sum as a further safeguard to developers in relation to potential changes in scheme costs, values and overall viability. The approach was set out within the Colchester Braintree Borders Contingency Analysis Note (Evidence Base reference EB/013(2/2a)) and as referred to in the NEA Hearing Statement to Matter 6 (paras 6.8b.1 to 6.8b.13)
- 2.10 The Inspector considered the evidence at the Hearings and set out his thoughts on the matter within his June correspondence.

74. The Hyas report modelled a range of different scenarios for each GC. The variables used were: various proportions of market and affordable housing and starter homes; uplifts of 0%, 5% and 10% on overall infrastructure costs; and uplifts of 0%, 5% and 10% on development value (to reflect a "Garden Community premium").

75. 10% would be an unusually low figure if it was intended to represent the sole contingency allowance on infrastructure costs. The NEAs produced further evidence setting out what they claimed amounted to a total 42% contingency allowance for CBBGC, as an example of the approach taken for all three GCs. Over a third of that amount, however, is the 15% profit allowance intended as an incentive to perform the master-developer role referred to above.

76. A 15% profit allowance is not excessive given that, as the NEAs accept, the Plan needs to be neutral as to whether the master-developer role is played by a public or private sector body. Even if the oversight role is retained in the public sector, it is quite possible that many of the master-developer functions would

need to be outsourced. Consequently, the master-developer profit allowance should not be counted as part of the overall contingency allowance.

- 77. The other additional element which the NEAs identified as part of the total contingency allowance was what they termed “in-built contingency” of around 24% on certain capital sums for infrastructure. Tracing these figures back to their source documents shows that most do indeed represent an uplift of around 20% on the minimum cost identified for each item. However, as was demonstrated at the hearing sessions, 20% or 24% is a low contingency figure for major capital projects. A contingency allowance of at least 40% would align better with the approach taken, for example, by Highways England when costing large-scale infrastructure schemes.*
- 78. I recommend therefore that alongside the generic cost uplift figure of up to 10% used in the Hyas report, sensitivity appraisals are carried out based on additional contingency allowances of 20% and 40% on relevant infrastructure schemes for each GC, such as road improvements, park-and-ride and rapid transit. That would give an adequate range of possible costs to inform the overall viability assessment.*
- 79. On the income side, my comments above on the likely rate of housing delivery at the GCs will need to be taken into account when calculating receipts from development value. It is important also that realistic assumptions are made about the income generated by commercial floorspace. I have commented above on the discrepancies between the employment land and floorspace allocations used in the Hyas report and those identified elsewhere in the evidence base.*
- 80. I recognise that the aim of bringing forward homes rapidly at the GCs may conflict with the ability to achieve a GC premium on house prices. That does not mean that Hyas were unjustified in sensitivity-testing a 5% and 10% premium, in order to appraise a range of possible outcomes. However, it is inconsistent with this approach to regard the £3,000 per unit uplift applied to site preparation and enabling costs as a contingency allowance, as identified in EB/13(2/2a). Given that the avowed purpose of the uplift is to create a high-quality public realm and sense of place, it would seem to be essential if any GC price premium is to be achieved.*

Letter from Inspector dated 8th June 2018 (para 74-80)

Price of land

- 2.11 Of particular importance in testing viability is the issue of benchmark land value that can adequately incentivise landowners to bring their land to the market. The 2017 Viability Assessment had set out the wider considerations around such a ‘benchmark land value’ and presented an overall position that an uplift over Existing Use Value (EUV) provided such an incentive. The analysis had not attempted to be explicit about a specific multiple or quantified uplift over EUV, or the point at which landowners would

bring forward land. This was due to the specific nature of the schemes and there being no truly comparable benchmarks to refer to with equivalent site and project circumstances. The approach also was mindful that expected returns would be heavily influenced by the individual circumstances of each landowner (including commercial, personal and tax issues) and would also relate closely to commercial terms that may be agreed with other parties involved in the land promotion process.

- 2.12 The Inspector has been clear that an allowance for the cost of land must be considered as part of the Viability Assessment and that consideration would need to be taken as to what may constitute a reasonable uplift.

82. *There is a difference between the headline value paid for a fully-serviced development site, and the net value which takes account of the costs of enabling works and strategic infrastructure, and of policy requirements such as the provision of affordable housing. The net land value is the appropriate comparator with the residual value that emerges from a valuation model such as that used by Hyas. In other words, it is quite appropriate to take account of up-front enabling and infrastructure costs (which in the Hyas/ATLAS model are incurred by the master developer) and policy requirements, when negotiating to purchase land for development.*
83. *However, as the Harman report points out, what ultimately matters for housing delivery is whether the value received by the landowner is sufficient to persuade him or her to sell the land for development. I consider it unlikely that most landowners would sell their land for development without at least a reasonable uplift on its existing use value. This has clear implications for the deliverability of the GCs.*
84. *That does not necessarily mean that a price of £100k per acre would need to be paid, as is suggested in Volume 3 of the GC Concept Feasibility Study. Ultimately, of course, the actual land price will emerge from negotiations with individual landowners. But in order to demonstrate that the GC proposals can be delivered, the NEAs will need to show through viability assessment that a reasonable uplift on current use values can be achieved.*
85. *Alternatively, if the NEAs intend to use compulsory purchase or other powers to acquire development land at a lower value than could be achieved through negotiation, clear evidence would need to be provided that such a course of action is capable of achieving that outcome (and is also compatible with human rights legislation). That has not been demonstrated by the evidence currently before me.*

Letter from Inspector dated 8th June 2018 (para 82-85)

Other matters

- 2.13 In addition, the Inspector also flagged a number of additional matters that were not explicitly set out in the commentary on 'viability', yet also required further consideration and would have an influence on the assumptions to be adopted within any viability reassessment work. These included:
- Marks Tey Station: To consider the approach further and include an appropriate allowance (and timing of any necessary improvements) to accord with the level of sustainable movement and placemaking ambitions (para 47);
 - Housing build out rate: to ensure an appropriate housing trajectory (para 53) and overall delivery programme which would have a key influence on the overall scheme cashflow;
 - Inflation: the Inspector considered it would be difficult to consider the impact of inflation and that any view on cost change would need to be accompanied by a view on value inflation (para 81);
 - Affordable housing: to demonstrate that the 30% provision was viable (para 55);
 - Employment provision: to ensure an appropriate amount of employment floorspace was included, and was consistent with the wider evidence base and policy.

Overall conclusions on viability

- 2.14 Overall, the letter from the Inspector identified a number of matters that required further consideration before being able to draw final conclusions on viability as per the summary in paragraph 86 of the letter.

.... it has not been demonstrated that the GCs proposed in the submitted Plan are financially viable. Further viability assessment, taking account of all the points above, will need to be carried out on any GC proposals that the NEAs bring forward

Letter from Inspector dated 8th June 2018 (para 86)

3. Policy & Guidance

- 3.1 A number of industry recognised advice and guidance notes exist which respond to the need to test area and site-based development proposals for financial viability, as a basis for planning policy and development management. These include the Ministry of Housing, Communities & Local Government (MHCLG) National Planning Policy Framework (NPPF), National Planning Practice Guidance (NPPG); the Royal Institution of Chartered Surveyors (RICS) Good Practice Note – “Financial Viability in Planning”; and work of the Local Housing Delivery Group (LHDG) - “Viability Testing Local Plans – Advice for Planning Practitioners”.
- 3.2 Viability testing is an important part of the Development Plan making process. The National Planning Policy Framework (NPPF) was comprehensively revised and published by the Ministry of Housing, Communities and Local Government (MHCLG) on 24 July 2018. In addition, the viability section of the Planning Practice Guidance (PPG) was also updated at the same time. The July revisions were the first major update to national planning policy and guidance since the material was first issued in 2012.
- 3.3 The revised policy and guidance does not include considerable additional detail on the viability process, rather it reinforces the significance of viability as a core part of the plan-making process. It aims to strengthen and provide greater clarity to the application of policy and guidance also introducing a greater emphasis on viability testing at plan-making stage.
- 3.4 As the Shared Section 1 Local Plans were submitted prior to the updated policy and practice coming into effect, the Examination in Public will continue to consider the proposals in accordance with the policy and guidance that existed at the time of the Plans’ preparation.
- 3.5 The revised material is nonetheless useful in providing further clarity and detail across certain aspects and generally has been amended to assist with the interpretation and application of policy in this area, helping practitioners to correctly apply the national policy objectives and parameters.
- 3.6 In addition, the approach to the Garden Communities is based upon the need to prepare subsequent site specific Development Plan Documents which will need to accord with the revised policy and guidance, as will the consideration of future planning applications for the sites. As such it is appropriate to consider the current position and implications on future planning processes to consider viability not solely as a point in time consideration, but as part of a future and ongoing process.

National Planning Policy Framework (NPPF pre July 2018)

- 3.7 The National Planning Policy Framework (NPPF) sets out how Government expects viability to be considered in planning, in the context of demonstrating the appropriateness of planning policies and planning decisions.
- 3.8 The NPPF (2012) set out the overall approach and made specific reference to ensuring viability and deliverability. In particular, paragraphs 173-174 stated:

Ensuring viability and deliverability

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

174. Local planning authorities should set out their policy on local standards in the Local Plan, including requirements for affordable housing. They should assess the likely cumulative impacts on development in their area of all existing and proposed local standards, supplementary planning documents and policies that support the development plan, when added to nationally required standards. In order to be appropriate, the cumulative impact of these standards and policies should not put implementation of the plan at serious risk, and should facilitate development throughout the economic cycle. Evidence supporting the assessment should be proportionate, using only appropriate available evidence

Source: National Planning Policy Framework (pre July 2018)

- 3.9 This made it clear that considerations of viability must reflect matters of affordable housing, infrastructure and placemaking requirements, and all other factors that can have an impact to ensure that sound decisions can be taken.
- 3.10 Section 6: “Delivering a wide choice of high quality homes” of the NPPF set out the approach to identifying sites, which also relates to the approach to evidence gathering and testing.
- 3.11 Of significance to the approach to the shared Section 1, the proposed Garden Communities included a reasonable lead-in time to further establish the policy basis, bring further clarity to aspects of infrastructure, and evolve more detailed schemes over time through further masterplanning and the preparation of Development Plan Documents. This was recognised in the original trajectories and the Inspector’s letter of

June, which referenced that housing delivery at any site could occur within four or five years from the adoption date of the plan (or plan revision) which established the Garden Communities in principle (and depending on how long it takes to put the necessary infrastructure in place). In particular, in light of the relationship to the phasing of strategic highways infrastructure closely related to the Colchester Braintree Borders Garden Community site (A12 and A120 improvements), the anticipated start date has now been further put back to 2028/29.

- 3.12 The NPPF referred to such longer term and less defined proposals setting out that Local Plans should:

identify a supply of specific, developable sites or broad locations for growth, for years 6-10 and, where possible, for years 11-15

Source: National Planning Policy Framework (pre July 2018) para 47

- 3.13 The approach to such 'developable sites' is further clarified in the footnote which states:

To be considered developable, sites should be in a suitable location for housing development and there should be a reasonable prospect that the site is available and could be viably developed at the point envisaged.

Source: National Planning Policy Framework (pre July 2018) para 47

- 3.14 As such, the approach to Viability Assessment would need to demonstrate that there was a 'reasonable prospect' that the sites could be viably developed when proposed, recognising that there may be a degree of outstanding uncertainty over detailed assumptions or information, in particular in relation to strategic infrastructure needs.

- 3.15 The NPPF also included specific reference under Section 6 to the role that large scale projects such as the proposed Garden Communities included in the Shared Section 1 Local Plans could play.

52. The supply of new homes can sometimes be best achieved through planning for larger scale development, such as new settlements or extensions to existing villages and towns that follow the principles of Garden Cities. Working with the support of their communities, local planning authorities should consider whether such opportunities provide the best way of achieving sustainable development. In doing so, they should consider whether it is appropriate to establish Green Belt around or adjoining any such new development.

Source: National Planning Policy Framework (pre July 2018) para 52

Revised National Planning Policy Framework (July 2018)

- 3.16 The revised NPPF (post July 2018) includes new and updated text relating to the approach to viability.
- 3.17 The national policy approach to planning obligations and contributions captures the point around the primacy of plan making, making explicit reference to the importance of viability testing at plan making stage. This is considered would help reduce the need for subsequent testing (at application or future planning stages) as well as a requirement for information to be made publicly available.

Where up-to-date policies have set out the contributions expected from development, planning applications that comply with them should be assumed to be viable. It is up to the applicant to demonstrate whether particular circumstances justify the need for a viability assessment at the application stage. The weight to be given to a viability assessment is a matter for the decision maker, having regard to all the circumstances in the case, including whether the plan and the viability evidence underpinning it is up to date, and any change in site circumstances since the plan was brought into force. All viability assessments, including any undertaken at the plan-making stage, should reflect the recommended approach in national planning guidance, including standardised inputs, and should be made publicly available.

Revised NPPF (post 2018), para 57

- 3.18 The approach to identifying land for new homes refers to the need to take into account the availability, suitability and likely economic viability of sites (para 67), which also refers to the same distinction between sites to be considered 'deliverable' and 'developable'. The related definitions now appear in the Glossary (Annex 2), with the wording for developable being substantially the same as it was, but further commentary has been added to 'deliverable' to make clearer reference to the status of sites subject to planning approvals.
- 3.19 The reference to large scale development has been expanded upon from that previously set out at para 52 of the previous NPPF. This now sets out a broader range of considerations and an important footnote has now been added to recognise that the delivery of the very largest schemes may go beyond plan making periods and that associated infrastructure requirements may not be capable of being identified fully at the outset and need to be subject to ongoing review and monitoring.

72. The supply of large numbers of new homes can often be best achieved through planning for larger scale development, such as new settlements or significant extensions to existing villages and towns, provided they are well located and designed, and supported by the necessary infrastructure and facilities. Working with the support of their communities, and with other authorities if appropriate, strategic policy-making authorities should identify suitable locations for such

development where this can help to meet identified needs in a sustainable way. In doing so, they should:

- a) consider the opportunities presented by existing or planned investment in infrastructure, the area's economic potential and the scope for net environmental gains;*
- b) ensure that their size and location will support a sustainable community, with sufficient access to services and employment opportunities within the development itself (without expecting an unrealistic level of self-containment), or in larger towns to which there is good access;*
- c) set clear expectations for the quality of the development and how this can be maintained (such as by following Garden City principles), and ensure that a variety of homes to meet the needs of different groups in the community will be provided;*
- d) make a realistic assessment of likely rates of delivery, given the lead-in times for large scale sites, and identify opportunities for supporting rapid implementation (such as through joint ventures or locally-led development corporations) [footnote 35]; and*
- e) consider whether it is appropriate to establish Green Belt around or adjoining new developments of significant size*

[footnote 35: The delivery of large scale developments may need to extend beyond an individual plan period, and the associated infrastructure requirements may not be capable of being identified fully at the outset. Anticipated rates of delivery and infrastructure requirements should, therefore, be kept under review and reflected as policies are updated].

Revised NPPF (post 2018), para 72

National Planning Practice Guidance (PPG – pre July 2018)

3.20 National Planning Practice Guidance (PPG) provides further detail about how the NPPF should be considered and applied. The NPPG (pre July 2018) contained general principles for understanding viability together with a range of other key factors to be considered as set out below.

- Understanding Local Plan viability is critical to the overall assessment of deliverability. Local Plans should present visions for an area in the context of an understanding of local economic conditions and market realities. This should not undermine ambition for high quality design and wider social and environmental benefit but such ambition should be tested against the realistic likelihood of delivery. (para 1)
- Evidence based judgement: assessing viability requires judgements which are informed by the relevant available facts. It requires a realistic understanding of

the costs and the value of development in the local area and an understanding of the operation of the market. (para 4)

- Transparency of evidence is encouraged wherever possible. (para 4)
- Evidence should be proportionate to ensure plans are underpinned by a broad understanding of viability. (para 5)
- Assessing the viability of plans does not require individual testing of every site more detailed assessment may be necessary for particular areas or key sites on which the delivery of the plan relies. (para 6)
- Plan makers should not plan to the margin of viability but should allow for a buffer to respond to changing markets and to avoid the need for frequent plan updating. Current costs and values should be considered when assessing the viability of plan policy. Policies should be deliverable and should not be based on an expectation of future rises in values at least for the first 5 years of the plan period. This will help to ensure realism and avoid complicating the assessment with uncertain judgements about the future. (para 8)

Source: National Planning Policy Guidance (various paras)

National Planning Practice Guidance (Revised July 2018)

- 3.21 The viability sections of the PPG (section 10) have been completely rewritten. The changes largely provide clarity and confirm best practice, rather than prescribe a new approach or methodology. The updated PPG includes 4 main sections covering 'Viability & plan making', 'Viability and decision taking', 'Standardised inputs to viability assessments', and 'Accountability'.
- 3.22 With respect to guidance for plan making, PPG reiterates the relationship between policy requirements and viability assessment as part of the plan making process. It references the need for a 'proportionate' assessment of viability, the need for sufficient clarity in planning requirements such as affordable housing, and that this will help to ensure that such requirements are appropriately being factored into the prices paid for land.

How should plan makers set policy requirements for contributions from development?

Plans should set out the contributions expected from development. This should include setting out the levels and types of affordable housing provision required, along with other infrastructure (such as that needed for education, health, transport, flood and water management, green and digital infrastructure).

These policy requirements should be informed by evidence of infrastructure and affordable housing need, and a proportionate assessment of viability that takes into account all relevant policies, and local and national standards, including the cost implications of the Community Infrastructure Levy (CIL) and section 106. Policy

requirements should be clear so that they can be accurately accounted for in the price paid for land. To provide this certainty, affordable housing requirements should be expressed as a single figure rather than a range. Different requirements may be set for different types of site or types of development.

PPG, Paragraph: 001 Reference ID: 10-001-20180724. Revision date: 24 07 2018

- 3.23 PPG confirms the importance of viability assessment at the plan making stage, the need for collaboration and engagement and puts the onus on site promoters and developers to ensure that they are accounting for policy compliance in their approaches.

How should plan makers and site promoters ensure that policy requirements for contributions from development are deliverable?

The role for viability assessment is primarily at the plan making stage. Viability assessment should not compromise sustainable development but should be used to ensure that policies are realistic, and that the total cumulative cost of all relevant policies will not undermine deliverability of the plan.

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

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

It is the responsibility of site promoters to engage in plan making, take into account any costs including their own profit expectations and risks, and ensure that proposals for development are policy compliant. The price paid for land is not a relevant justification for failing to accord with relevant policies in the plan.

PPG Paragraph: 002 Reference ID: 10-002-20180724. Revision date: 24 07 2018

- 3.24 The guidance makes reference to testing viability at plan making stage and the role of testing different site and development typologies as a pragmatic and proportionate approach. It recognises that strategic sites should be tested separately given their significance to delivering strategic priorities within plans.

Why should strategic sites be assessed for viability in plan making?

It is important to consider the specific circumstances of strategic sites. Plan makers can undertake site specific viability assessment for sites that are critical to delivering the strategic priorities of the plan. This could include, for example, large sites, sites that provide a significant proportion of planned supply, sites that enable or unlock other development sites or sites within priority regeneration areas. Information from other

evidence informing the plan (such as Strategic Housing Land Availability Assessments) can help inform viability assessment for strategic sites.

PPG Paragraph: 005 Reference ID: 10-005-20180724. Revision date: 24 07 2018

- 3.25 The revised PPG sets out the need for engagement and in turn the expectation that site promoters and developers fully take into account the cumulative cost of all policy requirements and infrastructure needs when promoting land for development.

How should site promoters engage in viability assessment in plan making?

Plan makers should engage with landowners, developers, and infrastructure and affordable housing providers to secure evidence on costs and values to inform viability assessment at the plan making stage.

It is the responsibility of site promoters to engage in plan making, take into account any costs including their own profit expectations and risks, and ensure that proposals for development are policy compliant. It is important for developers and other parties buying (or interested in buying) land to have regard to the total cumulative cost of all relevant policies when agreeing a price for the land. Under no circumstances will the price paid for land be a relevant justification for failing to accord with relevant policies in the plan.

PPG, Paragraph: 006 Reference ID: 10-006-20180724. Revision date: 24 07 2018

- 3.26 The Revised PPG sets out a number of key principles to guide the approach to viability assessments. This includes the residual approach to consider schemes costs and values, need for simplicity and transparency.

What are the principles for carrying out a viability assessment?

Viability assessment is a process of assessing whether a site is financially viable, by looking at whether the value generated by a development is more than the cost of developing it. This includes looking at the key elements of gross development value, costs, land value, landowner premium, and developer return.

This National Planning Guidance sets out the government's recommended approach to viability assessment for planning. The approach supports accountability for communities by enabling them to understand the key inputs to and outcomes of viability assessment.

Any viability assessment should be supported by appropriate available evidence informed by engagement with developers, landowners, and infrastructure and affordable housing providers. Any viability assessment should follow the government's recommended approach to assessing viability as set out in this National Planning Guidance and be proportionate, simple, transparent and publicly available. Improving transparency of data associated with viability assessment will, over time,

improve the data available for future assessment as well as provide more accountability regarding how viability informs decision making.

In plan making and decision making viability helps to strike a balance between the aspirations of developers and landowners, in terms of returns against risk, and the aims of the planning system to secure maximum benefits in the public interest through the granting of planning permission.

PPG, Paragraph: 010 Reference ID: 10-010-20180724. Revision date: 24 07 2018

- 3.27 The revised PPG sets out greater clarity around the approach to land value and has removed the previous language of ‘competitive returns’ to an approach based upon ‘Existing Use Value plus premium’ to provide a reasonable incentive. The guidance does not attempt to define precisely what level of premium may be required, but sets out that it should be considered against other options available, and respect the provision of a sufficient contribution to comply with policy requirements.

How should land value be defined for the purpose of viability assessment?

To define land value for any viability assessment, a benchmark land value should be established on the basis of the existing use value (EUV) of the land, plus a premium for the landowner. The premium for the landowner should reflect the minimum return at which it is considered a reasonable landowner would be willing to sell their land. The premium should provide a reasonable incentive, in comparison with other options available, for the landowner to sell land for development while allowing a sufficient contribution to comply with policy requirements. This approach is often called ‘existing use value plus’ (EUV+).

In order to establish benchmark land value, plan makers, landowners, developers, infrastructure and affordable housing providers should engage and provide evidence to inform this iterative and collaborative process.

PPG Paragraph: 013 Reference ID: 10-013-20180724. Revision date: 24 07 2018

What factors should be considered to establish benchmark land value?

Benchmark land value should:

- be based upon existing use value
- allow for a premium to landowners (including equity resulting from those building their own homes)
- reflect the implications of abnormal costs; site-specific infrastructure costs; and professional site fees and
- be informed by market evidence including current uses, costs and values wherever possible.

Where recent market evidence is used to inform assessment of benchmark land value this evidence should be based on developments which are compliant with policies,

including for affordable housing. Where this evidence is not available plan makers and applicants should identify and evidence any adjustments to reflect the cost of policy compliance. This is so that historic benchmark land values of non-policy compliant developments are not used to inflate values over time.

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

Where viability assessment is used to inform decision making under no circumstances will the price paid for land be a relevant justification for failing to accord with relevant policies in the plan. Local authorities can request data on the price paid for land (or the price expected to be paid through an option agreement).

PPG Paragraph: 014 Reference ID: 10-014-20180724. Revision date: 24 07 2018

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

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

Plan makers should establish a reasonable premium to the landowner for the purpose of assessing the viability of their plan. This will be an iterative process informed by professional judgement and must be based upon the best available evidence informed by cross sector collaboration. For any viability assessment data sources to inform the establishment the landowner premium should include market evidence and can include benchmark land values from other viability assessments. Any data used should reasonably identify any adjustments necessary to reflect the cost of policy compliance (including for affordable housing), or differences in the quality of land, site scale, market performance of different building use types and reasonable expectations of local landowners. Local authorities can request data on the price paid for land (or the price expected to be paid through an option agreement).

PPG Paragraph: 016 Reference ID: 10-016-20180724. Revision date: 24 07 2018

- 3.28 Overall the revised PPG puts the onus on developers to consider and mitigate risks as part of their approach to development. This is to be included both as part of the approach to land prices, as well as to developer returns (on construction activity) which is assumed to be reasonable within a range of 15-20% of gross development value, with a lower return on affordable housing or where wider risks have been minimised.

How should a return to developers be defined for the purpose of viability assessment?

Potential risk is accounted for in the assumed return for developers at the plan making stage. It is the role of developers, not plan makers or decision makers, to mitigate these risks. The cost of complying with policy requirements should be accounted for in benchmark land value. Under no circumstances will the price paid for land be relevant justification for failing to accord with relevant policies in the plan.

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

PPG Paragraph: 018 Reference ID: 10-018-20180724. Revision date: 24 07 2018

- 3.29 The Revised PPG sets out greater expectations that information relating to viability should be made more accessible and transparent to aid interrogation and interpretation.

Accountability

How should a viability assessment be presented and published to ensure accountability?

Complexity and variance is inherent in viability assessment. In order to improve clarity and accountability it is an expectation that any viability assessment is prepared with professional integrity by a suitably qualified practitioner and presented in accordance with this National Planning Guidance. Practitioners should ensure that the findings of a viability assessment are presented clearly. An executive summary should be used to set out key findings of a viability assessment in a clear way.

The inputs and findings of any viability assessment should be set out in a way that aids clear interpretation and interrogation by decision makers. Reports and findings should clearly state what assumptions have been made about costs and values (including gross development value, benchmark land value including the landowner premium, developer's return and costs). At the decision making stage, any deviation from the figures used in the viability assessment of the plan should be explained and supported by evidence.

PPG Paragraph: 020 Reference ID: 10-020-20180724. Revision date: 24 07 2018

Other Advice & guidance

- 3.30 Two other key sources of practical support on matters of assessing viability were referenced within the original viability assessment work. These were the
- ‘Viability Testing for Local Plans: Advice for planning practitioners’ prepared by a cross sector group of practitioners referred to as the Local Housing Delivery Group in 2012; and
 - ‘Financial Viability in Planning’, prepared by the Royal Institute of Chartered Surveyors (RICS) produced a Good Practice Note on the subject around the same time as the Harman guidance (2012).
- 3.31 The status and content of both references remain unchanged and have therefore not been repeated within this Viability Assessment Update report.
- 3.32 The RICS has recently published a Practice Statement “Financial viability in planning: conduct and reporting” (1st edition, May 2019) and intend to update the 2012 Good Practice Note later in 2019. The Practice Statement has been prepared for RICS members to demonstrate how a reasonable, objective and impartial outcome has been reached without interference and so support the statutory planning decision process. It does not contain the same level of detail as the Good Practice Note, but confirms the approach must be based upon robust assumptions, be reasonable, transparent, fair and objective, and impartial without bias or any conflict of interest. The Statement refers to potential sources for consideration of benchmarking and makes explicit that “Price paid is not allowable evidence for the assessment of BLV and cannot be used to justify failing to comply with policy”, to accord with the current approach as set by the NPPF and Planning Practice Guidance.

4. Methodology & Updated Assumptions

- 4.1 The financial viability testing has continued to be undertaken using the 'Garden City & Large Sites Model' (GCLS Model) originally developed within the Advisory Team for Large Applications (ATLAS) in the Homes & Communities Agency (HCA). This model is a viability assessment tool specifically created to consider the viability of long term, large scale sites (and in particular Garden City proposals) at an early stage in the planning process. It is based upon a 'master developer' approach, as the largest sites are unlikely to be delivered through traditional housebuilder approaches. The model enables testing of residual land values, as well as wider financial testing including consideration of the Internal Rate of Return as a further measure of scheme viability.
- 4.2 As before, the assessments have considered the viability of the sites in the context of their full development potential with activity occurring well beyond the current timescale of the Shared Section 1 Local Plans.

Model Updates

- 4.3 Whilst the viability assessment model approach remains on the same basis as before, a number of adjustments have been made to the structure of the model and a number of calculations to accord with current needs and thinking. The adjustments enable the results to fully address matters raised through the Examination in Public. These are set out in Figure 4.1.

Figure 4.1: Viability Assessment Model Adjustments

Update	Previous Position	Updated Position
Model Timescale	The models enabled analysis over a 50 year appraisal period. This accommodated the full development programme for the Tendring Colchester Borders and West of Braintree Garden Communities, but not the Colchester Braintree Borders scheme, which had residual items summed in the last year of the model.	The updated models have been extended to cover a 94 year period. This enables all sites to be fully assessed in light of revised trajectories.

Infrastructure Typologies	<p>The models presented infrastructure costs across the following typologies:</p> <ul style="list-style-type: none"> ▪ Scheme Wide Enabling Works; ▪ Scheme Wide Community Infrastructure – On Site; ▪ Scheme Wide Other Itemised Infrastructure – On Site; ▪ Scheme Wide Other Itemised Infrastructure – Off Site; ▪ Management & Long Term Governance. <p>Individual items were listed and costed under the above typologies.</p>	<p>The updated models now present infrastructure costs across the following typologies:</p> <ul style="list-style-type: none"> ▪ Scheme Wide Enabling Works (as before); ▪ Scheme Wide Community Infrastructure (as before) ▪ Scheme Wide Other Itemised Infrastructure. These now blend the itemised on & off site infrastructure elements into one category; ▪ Others. This category picks up other contributions/ aspects not necessarily defined by a specific element of infrastructure or where items are not to be funded solely by the scheme in question.
Land Purchase	<p>The previous model included a cost category for 'Land Assembly' but as the models produced a final residual this category was unused.</p>	<p>The land assembly category has been removed as the models test residual land values throughout the full development programme.</p> <p>Additional calculations have been added to account for land purchase costs throughout the development period.</p>

Updated Assumptions

- 4.4 The previous Viability Assessment was published in April 2017, and drew from a variety of sources/evidence produced prior to that date some of which dated back into 2016. A number of aspects have required updating to accord with more recent information and changes since the original work was undertaken. The updated work also addresses certain issues raised by the Inspector as requiring further consideration.
- 4.5 The following key assumptions have been updated and are explained within this update report:

- Scheme land use and development breakdowns;
- Scheme wide infrastructure costs and phasing;
- Residential build costs & on plot externals;
- Residential sales values;
- Residential build out rates;
- Approach to inflation;
- Approach to developer profit;
- Consideration of contingencies;
- Approach to land draw down & costs; and
- Scenarios tested.

4.6 All other assumptions and approaches as per the original (2017) Viability Assessment have remained as they were. This Viability Assessment update should therefore be considered alongside the original report and broader set of assumptions contained therein to provide a complete picture across all assumptions.

Scheme land use and development breakdowns

4.7 Further work has been undertaken to consider the overall scale of development, phasing and infrastructure needs to reflect changes since the preparation of the original site specific Concept Frameworks which informed the previous approach to assessing viability. This Viability Assessment Update has been prepared in accordance with the current illustrative land use and development capacity figures as per the 'Infrastructure Planning, Phasing & Delivery Study' (AECOM, 2019). The schemes as assessed are set out in Figure 4.2.

Figure 4.2: Core Land Use & Development Breakdowns

Land Uses & Site Capacity	West of Braintree	Colchester Braintree Borders	Tendring Colchester Borders
Residential (ha)	320	564	196
Employment (ha)	43	52	24
Mixed Use (ha)	18	20	9
Education (ha)	31	54	25
Open Space (ha)	239	422	145
Infrastructure (ha)	34	58	25
Total Site area (ha)	685	1,170	424
Total Residential Units	12,500	21,000	7,500

Source: Infrastructure Planning Phasing & Delivery Study (AECOM, 2019)

4.8 These site scale options form the basis of the viability assessments.

Scheme wide infrastructure costs & phasing

- 4.9 A full and detailed review of scheme wide infrastructure costs has been undertaken to accord with the latest position on scheme scale, land uses, phasing and strategic infrastructure relationships. The infrastructure costs have been set out in detail in the North Essex Garden Communities Infrastructure Order of Cost Estimate (Gleeds, 2019) and are summarised by key cost theme in Figure 4.3.

Figure 4.3: Scheme wide infrastructure costs (£)

Strategic Costs	West of Braintree	Colchester Braintree Borders	Tendring Colchester Borders
Education	105,930,000	172,350,000	65,250,000
Community, Health & Well Being	23,260,000	36,090,000	13,020,000
Open Space	39,850,000	66,950,000	23,910,000
Utilities – Scheme Wide Enabling Works	230,420,000	389,980,000	138,640,000
Additional On Site Utilities	8,340,000		
Additional Off Site Utilities	34,910,000	70,360,000	27,250,000
Transport	140,830,000	248,850,000	108,740,000
Others (including employment and stewardship)	81,690,000	117,600,000	30,710,000
Totals	665,230,000	1,101,780,000	407,520,000
Cost per unit (excluding fees & risk, rounded)	53,000	52,000	54,000

Source: North Essex Authorities Infrastructure Order of Cost Estimate (Gleeds, 2019)

Residential build costs

- 4.10 As per the previous approach, residential build cost assumptions are based on location-adjusted figures from the Build Cost Information Service (BCIS) which provides industry wide data on build costs across multiple property types. For this update, the figures as available for December 2018 have been applied, and blended for each Garden Community based upon the average rates for the Council areas concerned (therefore Tendring Colchester Borders is an average across the Tendring and Colchester Borough figures, and Colchester Braintree Borders is an average of Braintree and Colchester).
- 4.11 The assumptions have subsequently been adjusted to accommodate for a split of 80% houses and 20% flats, to reflect the difference in costs for construction of different types of property across the sites. Related to this and the wider update to site

enabling and preparation costs, plot external costs have been adjusted to 10% of build costs.

- 4.12 The source data relating to residential build costs for each Council area is contained in the Appendix, and the values utilised as part of the analysis is set out in Figure 4.4.

Figure 4.4: Residential Build costs

	Previous Position	Updated Position
West of Braintree	£1,167 psm (£108 psf)	£1,330 psm (£120 psf)
Colchester Braintree Borders	(consistent across all 3 Garden Communities)	£1,293 psm (£120 psf)
Tendring Colchester Borders		£1281 psm (£119 psf)

Source: BCIS

Residential Sales Values

- 4.13 Residential sales values have been updated in accordance with the rate of house price value change as recorded by the UK House Price Index, compiled and published by the Office of National Statistics (ONS). Previous house price assumptions were based upon advice from Cushman & Wakefield from December 2016. For the purposes of this assessment, such values have been adjusted in accordance with changes to the House Price Index relating to new build properties within the respective Council areas from December 2016 to December 2018 (to align with the time point of comparable build cost data). The values have again been blended for each Garden Community based upon the average rate for the Council areas concerned (therefore Tendring Colchester Borders is a blend across the Tendring and Colchester Borough values, and Colchester Braintree Borders is a blend of Braintree and Colchester).
- 4.14 The House Price Index has shown strong growth during the 2-year period across all 3 Council areas with values for new build properties in Braintree rising by 7.9%, in Colchester by 7.8% and Tendring seeing stronger growth of 13.3%.

Extracted sources data relating to the change in house prices for each Council area is contained in the Technical Appendix, and the values utilised as part of the analysis are set out in Figure 4.5. the Updated values reflect the blended average growth for the Council areas concerned

Figure 4.5: Residential Sales Values

	Previous Position	Updated Position
West of Braintree	£3,660 psm (£340 psf)	£3,950 psm (£367 psf)
Colchester Braintree Borders	£3,337 psm (£310 psf)	£3,598 psm (£334 psf)
Tendring Colchester Borders	£3,229 psm (£300 psf)	£3,568 psm (£332 psf)

Source: Cushman & Wakefield as adjusted by the ONS House Price Index

Residential build out rates

- 4.15 In relation to build out rates, there will be many influences on a forecast housing trajectory from the Garden Communities. It will essentially be dictated by the rate of sales that developers are able to achieve in light of site conditions, business strategies and wider market demand. The key influences on such large scale greenfield sites such as the Garden Communities include:
- The location, nature, and scale of the site, as well as its layout and phasing approach. This will influence how many separate housebuilders can be active on site at any one time;
 - The overall scale of demand within the wider housing market. This will in turn be influenced by general economic conditions such as job security and job mobility, and general consumer confidence about buying/moving, as well as mortgage availability;
 - The business strategy and physical capacity of the development model and key stakeholders. This includes the approach to strategic infrastructure, the provision of serviced development plots to the market, as well as the individual approaches of housebuilders & plot developers in the local area set against wider business plans and strategic land portfolios; and
 - The type and variety of products (multiple tenures, types & sizes being brought to the market), pricing, and extent of competition from other properties for sale both within the site itself and wider geographic area.
- 4.16 More detailed consideration of these issues and the relationship to build out rates is set out in the separate 'Build Out Rates Topic Paper' (NEA, 2019). This indicates that the Garden Community sites are expected to achieve strong and enduring build out rates, and accordingly this Viability Assessment Update has applied an average rate of 300 units per year from each Garden Community. This is a reduction in peak annual delivery rates for Colchester Braintree Borders and West of Braintree compared to the previous approach.
- 4.17 A further review has been undertaken on potential start on site and residential completions, with adjusted dates to partly account for the pause with the Local Plans, but also for Colchester Braintree Borders to provide a longer lead in time for the provision of strategic infrastructure (primarily improvements to the A12 and A120).

Figure 4.6 Assumed Development Trajectory & Build out rate

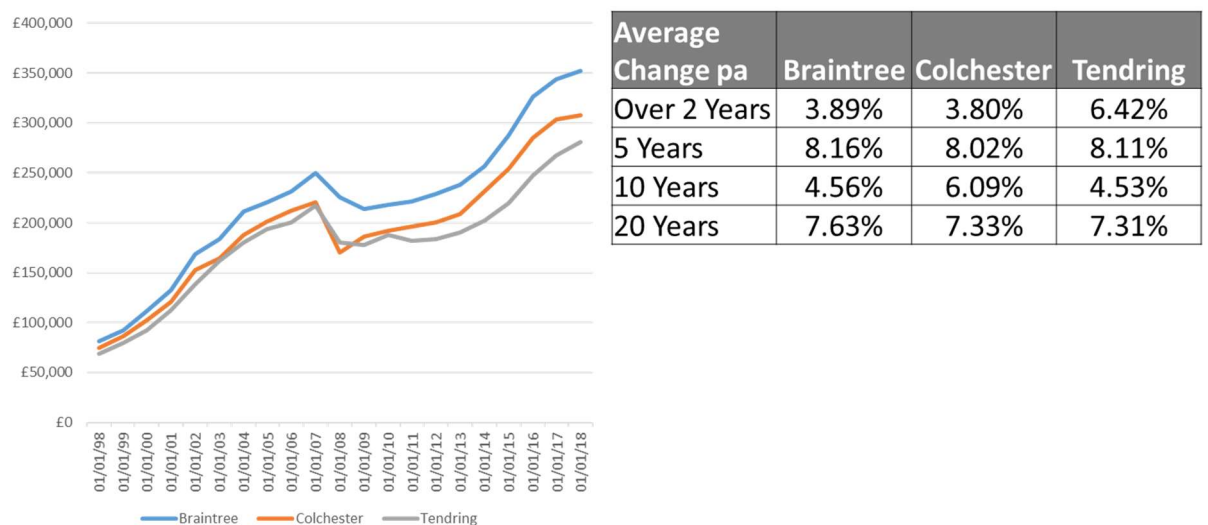
	Previous Approach		Updated Approach	
	First Completions	Max build out rate	First Completions	Max build out rate
West of Braintree	2023/24	350	2023/24	300
Colchester Braintree Borders	2024/25	500	2028/29	300
Tendring Colchester Borders	2022/23	300	2023/24	300

Source (Updated Approach): Build Out Rates Topic Paper (NEA, 2019)

Approach to inflation

- 4.18 Development across each of the proposed Garden Communities is not due to commence for several years and will continue for many years into the future spanning several economic cycles. It must therefore be expected that costs and values will change over time to accord with inflation and value growth. However, there are clear difficulties inherent in forecasting, especially over such long-time frames and there are no potential references or market projections published over such long term periods.
- 4.19 Historically property value growth has outpaced cost inflation by a considerable margin. Whilst this will inevitably be influenced by the specific timing and length of market cycles, such trends are evident both over the long term (20 years or more) and short term (as per the period between the previous viability assessment and this study). Changes in local house prices over the past 20 years is illustrated in Figure 4.7.

Figure 4.7 House Price Inflation



Source: ONS House Price Index

- 4.20 Given the unpredictable nature of inflation forecasting, this update has considered inflation as a separate additional scenario based upon broad average changes in costs over a historical period as indexed by the Build Cost Information Service (BCIS). Whilst annual sales value growth over the same period has been greater, it is considered prudent to merely forecast value inflation keeping pace with build cost inflation. For the purposes of this Viability Assessment Update sales value inflation adopts the same rate of future change.
- 4.21 This data period is considered a reasonable timeframe to include consideration of property cycles and a range of macro-economic conditions. It is presented merely to provide an illustration of the importance of inflation to viability. Should sales value outpace cost inflation, then overall scheme viability would improve considerably.

Figure 4.8 Inflation Assumptions (inflation only scenarios)

	Updated Position (annual rate)
Strategic Infrastructure inflation (based on BCIS Civil Engineering Index)	3.5%
Build Cost inflation (based on BCIS General Building Index - rounded)	4.0%
Sales Value Inflation (assumed to mirror build cost inflation as above - rounded)	4.0%

Source: Cost data - BCIS

- 4.22 For the purposes of the Residual Land Value calculations within this Viability Assessment Update, the impact of inflation has filtered through to uplift land values. In practice, it is likely that any such change in returns due to inflation would be shared between the master-developer, investors and landowners on terms that would be negotiated and agreed.

Approach to developer profit

- 4.23 Given the anticipated approach to scheme delivery, profit has been considered both in respect of the master developer and the separate plot developers.
- 4.24 The previous approach included a 20% profit rate across the 'Gross Development Value' which can be considered towards the top of a standard reasonable range. The Gross Development Value of a scheme is generated through the creation of the asset, which will be a combination of direct (housing) construction costs together with investment in all associated infrastructure and place-making. In a standard approach to viability assessments, the developer profit would be the only element of profit considered calculated on gross development value, and there would not be an itemised separate profit allowance for a 'master developer'.

- 4.25 It is considered appropriate to continue the approach to include separate profit components for the respective body/bodies implementing strategic works, separate and additional to those who may be ultimately delivering the direct development (although the two could be the same body). Under any scenario of delivery the latter would be benefitting from the delivery of such strategic infrastructure by another party, the provision of which is creating the conditions to achieve the gross development value, at the same time as introducing lower risk to developers involved on site. It is therefore considered appropriate to reduce the allowance for developer (on plot) profit to better account for such de-risking and to avoid double counting elements of profit.
- 4.26 The profit rate for the master-developer has been retained at 15% and continues to be applied over the strategic infrastructure costs. The plot developer profit has been adjusted to 15% of the ultimate gross development value to better reflect the overall total profit being extracted via the full delivery process. The resulting combination of both master-developer and plot-developer profits provides the 'full' profit, which when considered against the overall gross development value is the equivalent of circa 17.5%, which sits as a mid-point in an industry standard range of 15-20% as referred to within the MHCLG Planning Practice Guidance.
- 4.27 The updated analysis also considers returns to the master-developer via the IRR metric as set out later in this report.

Consideration of contingencies

- 4.28 The previous approach to contingencies included a combination of in built contingencies together with a supplementary 'cushion' of varying percentages to provide an additional buffer.
- 4.29 The matter was considered at the Examination in Public and the Inspector indicated that sensitivity tests ought be undertaken to consider the impact of higher rates at 20% and 40%, applied to relevant strategic infrastructure items.
- 4.30 This Viability Assessment Update Report has run sensitivity tests across all sites and scenarios to consider the impact of 10%, 20% and 40% contingencies across specific infrastructure items as set out in the 'Scheme Wide Other Itemised Infrastructure' category. This category includes a range of site specific infrastructure components which would be most relevant to potential cost unknowns given their 'non-standard' nature. This includes defined transport works, sustainable transport measures and utilities upgrades. Other items of infrastructure (for example the provisions of schools and community facilities) are considered as more standard items and have a fixed level of 10% contingency applied across all sites and scenarios.

Approach to land draw down and costs

- 4.31 The Viability Assessment Update has incorporated additional calculations to apply land purchase costs throughout the full development programme.
- 4.32 The approach has applied the working assumption as set out in the Concept Feasibility Study and as referred to by the Inspector in the June correspondence that land would be purchased 2 years before it was required for development.
- 4.33 The approach therefore ensures that such costs are fully included in the cash flows and that the overall modelling includes the associated borrowing costs of such land purchases.
- 4.34 The models calculate the maximum land purchase cost (overall and per acre/hectare) that the scheme can viably accommodate given all other assumptions, to be at break-even point overall at scheme end. This generates an equivalent maximum residual land value that can be considered as part of the consideration of overall viability.

Scenarios Tested

- 4.35 The Garden Communities are still at a relatively early stage in their design and development, and as such it is still considered appropriate to consider viability under a range of potential scenarios. Further consideration has however been given to the approach to scenarios which has led to the updated approach as set out in Figure 4.9.

Figure 4.9: Approach to Scenarios

Update	Previous Position	Updated Position
Affordable Housing Scenarios	Tests at 20%, 25% and 30% Affordable housing levels for the Colchester Braintree Borders and Tendring Colchester Borders Garden Communities, and 20%, 25%, 40%, 35% and 40% for the West of Braintree Garden Community. At each band 2 tenure mixes were tested: (i) at 80:20	To simplify the approach and narrow the number of model runs, each site has been assessed at 30% affordable housing in accordance with the Publication Draft shared Section 1 Local Plans policies (with the West of Braintree scheme being adjusted to allow for 30% for the Braintree area and 40% in the Uttlesford part of the site). Tenure mix has been assumed at 60% Affordable Rent and 40% Shared Ownership to accord with future expectations that circa 10% of housing from such large sites would be made available for affordable home ownership products, looking ahead to the need to apply national policy as set by

	Affordable Rent: Shared Ownership; and (ii) to Include 10% as Starter Homes (with other affordable at the 80:20 split).	<p>paragraph 64 of the revised National Planning Policy Framework (MHCLG).</p> <p>The position on Starter Homes has been clarified since preparation of the previous viability assessment, and there is now no longer an expectation for a certain proportion to be defined, albeit it could form part of a wider approach to tenure mix to deliver the objective of affordable home ownership products. As Starter Homes are expected to be higher value than the modelled Shared Ownership tenure, any inclusion would in effect improve viability. The NEA will always retain flexibility to consider future needs & alternative mixes as appropriate and over time.</p>
Infrastructure costs	Scenarios were run to consider 0%, 5% and 10% additional contingency sums across all strategic infrastructure costs.	<p>Infrastructure costs have been comprehensively updated. A minimum 10% is applied to all strategic infrastructure costs.</p> <p>Scenarios have now been run to apply 20% and 40% contingencies to items identified as 'Other Itemised Scheme Wide Infrastructure'.</p>
Garden City Premium	Scenarios were run to consider 0%, 5% and 10% residential sales value enhancement due to a 'garden city premium'.	Each proposal will need to deliver on the necessary quality as being set through planning policy. Whilst a premium may still be achieved it has not been assumed or modelled as part of this Viability Assessment Update. Should a premium be achieved this would improve viability.
Government Funding	No scenarios were considered in relation to potential Government investment in infrastructure	<p>Since the original work, bids have been shortlisted under the Housing Infrastructure Fund for both the Colchester Braintree Borders and Tendring Colchester Borders schemes.</p> <p>Sensitivity tests have therefore been run on the 2 Garden Communities subject to current live funding bids to consider the viability position should such bids be successful.</p>

Inflation	No scenarios were considered in relation to potential inflation in costs and values.	<p>Whilst it is recognised that forecasting for inflation is difficult to predict, it is a fact that due to the long timescales involved, the schemes will be subject to both cost and value inflation over time which will have a considerable impact on overall scheme costs, values and viability.</p> <p>A separate scenario has now been included to illustrate the potential significance of inflation.</p>
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4.36 This Viability Assessment Update have therefore been prepared based upon the following 3 core scenarios. Each has been run with alternative rates of contingency for the relevant strategic infrastructure items (10%, 20% and 40%).

- **Reference Case.** Assuming baseline assumptions including current day costs & values and no Government grants for upfront infrastructure;
- **Grant.** Assuming funding support is secured for certain upfront infrastructure. This aligns with the live Housing Infrastructure Fund bids for the Colchester Braintree Borders and Tendring Colchester Borders schemes. No Grant scenarios are run for West of Braintree;
- **Inflation.** Assuming inflation to both costs and values as per the assumptions set out in this report. These are applied to the same assumptions as the Reference Case (i.e. not assuming Grant).

Consideration of discounted cash flow analysis

4.37 During the Shared Section 1 Local Plan Examination in Public consideration was given to the appropriate methodology to be adopted to test the viability of projects such as Garden Communities, given their scale and the length of anticipated delivery.

4.38 The Inspector acknowledged in his correspondence (paragraphs 62 & 82 of the 8th June 2019 letter to the NEAs) that the approach presented by the NEAs had adopted the residual valuation method. The Inspector also noted the long development timescales associated with the proposals and suggested that “it would be advantageous for the residual valuation appraisal to be supplemented with a discounted cashflow assessment in order to provide a more complete analysis.” (paragraph 86).

4.39 As requested by the Inspector, we have also assessed the residual land value using an Internal Rate of Return (IRR), adopting both current values/costs and inflated values and costs. It is usual to exclude the cost of finance/funding costs as part of such an approach. The IRR is the percentage rate earned on each pound invested for each

period that it is invested. It is a method of discounting a cash flow, receipts and expenditure, applying a single discount rate. The IRR is defined as the discount rate that gives a Net Present Value equal to zero. This approach can be used either to calculate a present value for the land required i.e. what it can be bought for whilst allowing the developer to make its target return, or whether there is a surplus or deficit when inputting a fixed land value as one of the costs.

- 4.40 The use of IRR, and Net Present Value, enables a comparison to be made between projects with different cash flows and of different duration. It is often done in conjunction with other metrics such as the Return on Investment, Payback Period and Return on Equity. It can also compare a rate of return with assumptions about inflation, funding costs and alternative investments; care needs to be taken to ensure that the conclusions are correct and approaches such as the Modified Internal Rate of Return and the External Rate of Return are often used as well.
- 4.41 The approach is particularly applied to projects with a long duration and/or where it is necessary or helpful to understand the anticipated annual return. Profit metrics such as Return on Gross Development Value, Return on Costs or Return on Equity provide a figure assessed at the end of the project and take no account of the time value of money.
- 4.42 Whilst the assessment of profit and land value by applying an IRR is common for large scale developments, it is used relatively infrequently in assessing viability for planning purposes, and rarely for local plan assessments. Nonetheless, it is a legitimate approach and one applied by developers and funders.
- 4.43 The choice of the IRR to apply or seek will reflect factors such as the duration of the project, the length of time before the cash flow is positive, the scale of expenditure, the proposed methods of funding, the risks that arise and the return required. The overall rate of return should equate to or exceed the anticipated cost of funding.
- 4.44 The IRRs are derived through the current modelling approach, scenarios and assumptions adopted, including the residual land values that were generated. The IRRs have been calculated based upon scheme cashflows excluding finance and the defined line item for master-developer profit, to generate a rounded equivalent rate of return for those responsible for delivering the strategic works.
- 4.45 It should be noted that residual land value has acted as the core variable within the analysis. Where schemes are highly viable (such as within the inflation based scenarios), the models convert all uplift into an equivalent maximum residual land value. In practice, not all enhanced returns would go direct to landowners and overall returns would more likely be split between the master-developer/investor and land-owners. This would effectively enhance the project IRRs beyond those being calculated as part of this analysis, especially for the inflation based scenarios where it would also be expected that target rates would also be higher.

5. Viability Assessment: Results & Analysis

- 5.1 This Viability Assessment Update has included re-running the viability models in light of the updated assumptions as set out in this document combined with those unaltered from the previous assessment work undertaken in 2017.
- 5.2 The accompanying Technical Appendix provides further detail including a copy of the cashflow for each site and individual scenario. Findings per site and overall are set within this Chapter.

West of Braintree Viability Scenarios & Considerations

- 5.3 The outcomes of the Viability Assessment Update scenarios for the West of Braintree Garden Community based upon the updated assumptions set out in Chapter 4 are set out in Table 5.1 below. These illustrate the final residual land values calculated back to an equivalent value per acre.

Figure 5.1: West of Braintree Viability Assessment Scenario Outcomes: Maximum Residual Land Values (per gross acre)

	Scenarios		
	Reference	Grant	Inflation
10% Contingencies	£136,509	N/A	£728,838
20% Contingencies	£116,962	N/A	£701,028
40% Contingencies	£77,946	N/A	£645,409

- 5.4 The assessments reveal that for West of Braintree under the Reference Scenarios residual land values range from £136,509/acre with 10% contingencies to £77,496/acre at 40% contingencies. The inflation scenarios all produce considerably higher residual land values across all contingency rates, driven in part by the higher initial sales values and timescale of development programme across which inflation is compounded over time. As set out in the previous Chapter, such enhanced land values under the inflation based scenario would be shared between master-developer/investor and land owners, and is sizeable enough to enable significantly enhanced returns for all key parties involved in scheme delivery.
- 5.5 Internal Rates of Return under the Reference based scenarios range from 8.0-8.2%, and for the Inflation scenarios 7.0% (but noting that that inflation based IRRs would be considerably higher in practice due to sharing of uplift between landowners, investors and developers).

Colchester Braintree Borders Viability Scenarios & Considerations

- 5.6 The outcomes of the Viability Assessment Update scenarios for the Colchester Braintree Borders Garden Community based upon the updated assumptions set out in

Chapter 4 are set out in Table 5.2 below. These illustrate the final residual land values calculated back to an equivalent value per acre.

Figure 5.2: Colchester Braintree Borders Viability Assessment Scenario Outcomes: Maximum Residual Land Values (per gross acre)

	Scenarios		
	Reference	Grant	Inflation
10% Contingencies	Less than EUV	£102,913	£650,728
20% Contingencies	Less than EUV	£88,176	£601,100
40% Contingencies	Less than EUV	£58,702	£500,926

- 5.7 The assessments reveal that for Colchester Braintree Borders under the Reference Case Scenarios the cashflow would be negative and therefore not achieve Existing Use Values. Should the current bids for Government funding via the Housing Infrastructure Fund be successful, residual land values would be lifted to between £102,913/acre at 10% contingencies to £58,702/acre at 40% contingencies. Inflation scenarios again produce considerably higher residual land values, which are strong due to the overall length of delivery timescale and application of cost and value growth over a considerably longer timeframe than the other 2 Garden Communities.
- 5.8 Internal Rates of Return under the Grant based scenarios range from 8.7-9.0%, and for the Inflation scenarios 6.7%.

Tendring Colchester Borders Viability Scenarios & Considerations

- 5.9 The outcomes of the Viability Assessment Update scenarios for the Tendring Colchester Borders Garden Community based upon the updated assumptions set out in Chapter 4 are set out in Table 5.3 below. These illustrate the final residual land values calculated back to an equivalent value per acre.

Figure 5.3: Tendring Colchester Borders Viability Assessment Scenario Outcomes: Maximum Residual Land Values (per gross acre)

	Scenarios		
	Reference	Grant	Inflation
10% Contingencies	£67,394	£210,504	£364,863
20% Contingencies	£49,778	£203,473	£340,242
40% Contingencies	£14,529	£189,411	£290,999

- 5.10 The assessments reveal that for Tendring Colchester Borders under the Reference Case Scenarios residual land values range from £67,394/acre at 10% contingencies to £14,529/acre at 40% contingencies. Should the current bids for Government funding via the Housing Infrastructure Fund be successful, residual land values would be lifted

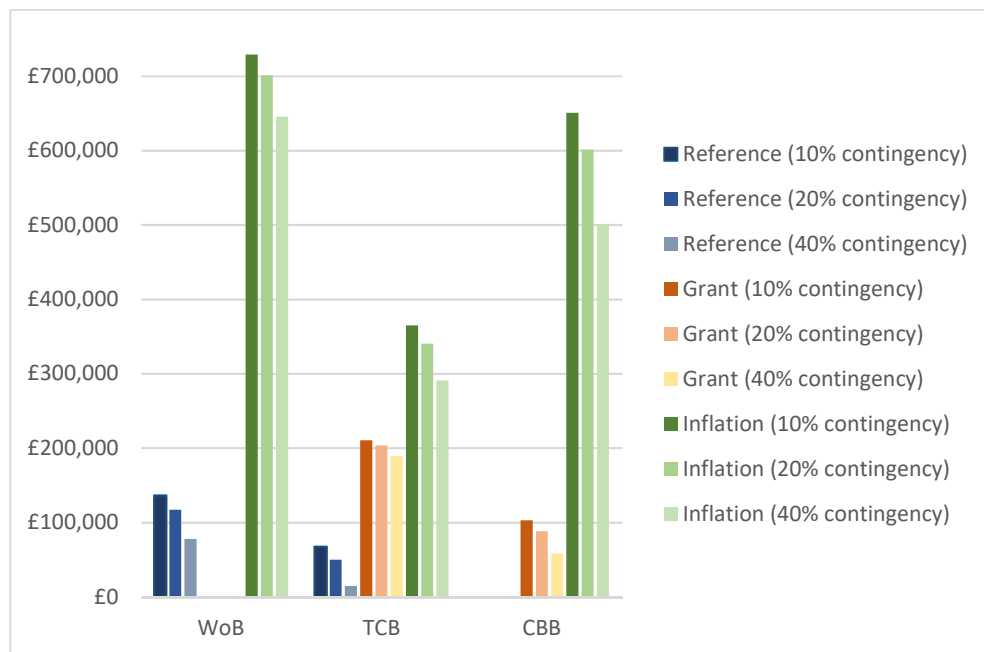
to between £210,504/acre at 10% contingencies to £189,411/acre at 40% contingencies. Inflation scenarios again produce considerably higher residual land values, albeit lower than the other sites due to the Garden Community having the lowest scale of development and shortest delivery timescale across which costs & value growth is compounded.

- 5.11 Internal Rates of Return under the Reference based scenarios range from 9.2-9.4%, under Grant based scenarios they are 9.0-9.1%, and for the Inflation scenarios 8.1-8.2%.

Summary & Wider Considerations

- 5.12 Figure 5.4 sets out the summary findings across all three Garden Community sites illustrating the residual land values related to the various scenario tests undertaken.

Figure 5.4 Summary Residual Land Values by Scenario



- 5.13 This assessments generally reveal that:

- Whilst varying in detail between each site, strategic infrastructure costs are broadly similar but a key differential is in relation to residential sales values. These are strongest for the West of Braintree site, with values for both Colchester Braintree Borders and Tendring Colchester Borders being comparatively lower (but with the latter strengthening significantly since the previous viability work was undertaken).
- The majority of scenarios tested across each of the Garden Communities generate residual land values well in excess of current existing use (agricultural) values.

- The role that upfront funding of infrastructure through Government grants could play to improve viability; and
 - The importance of inflation which would have a considerable impact over time given the overall development trajectories and timescales involved.
- 5.14 The overall test of viability is based upon the judgement of the achievability of such residual land values and consideration as to whether these provide suitable incentive to landowners to bring land to the market.
- 5.15 The Garden Communities as being proposed are generally located on greenfield agricultural land beyond the current boundaries of existing towns & settlements. Such agricultural land will be worth circa £10,000 per acre for agricultural purposes, with additional value for buildings and other structures that relate to the farm holdings.
- 5.16 As set out earlier in this document (Chapter 3) the general approach as advocated by policy and guidance is to consider what constitutes an appropriate 'competitive return' to landowners, albeit what this means in precise value or uplift terms is not defined. The revised Planning Practice Guidance has provided further clarification on the issue of benchmark land value and what ought be drawn in to the consideration.
- 5.17 As set out in the previous viability assessment, in the North Essex context, there has been some strategic land activity such as on the fringes of Braintree and Colchester for smaller scale development directly plugged in to existing development and infrastructure. The proposed Garden Communities are of such a scale, form, and context that it is inappropriate to draw clear comparisons from such historic land transactions or recent/current market behaviour.
- 5.18 The Concept Feasibility Study (AECOM & Cushman & Wakefield, 2016) indicated that a land value in the order of £100,000 per gross acre, based upon current practice was sufficiently more than current agricultural values and could form an indicative assumption for testing. Whilst such professional knowledge and experience is useful to provide a perspective on existing behaviour and the level of likely expectation, it will not fully relate to the form, scale and nature of proposed new Garden Communities and was not derived with the current knowledge of all associated policy, placemaking and infrastructure requirements. The Inspector acknowledged in the June correspondence that this value of £100,000/acre would not necessarily need to be paid, and it therefore does not define a fixed value against which viability should be considered.
- 5.19 A key factor is the amount it is assumed that landowners and developers will require to bring development forward. In planning terms, it is not necessary to have regard to the price paid for the land when determining viability, the benchmark is effectively that it must be worth sufficiently more for development than being retained in its existing use; which for the Garden Communities is predominantly agricultural, or any reasonable alternative uses. There will often be practical and legitimate reasons to

allow higher sums for example to take into account the position of individual landowners and any particular circumstances affecting their approaches, such as family or taxation considerations.

- 5.20 The test of viability should therefore focus upon comparison to existing use or alternative uses for the sites that may be considered feasible with a reasonable uplift. As set out, agricultural land in the area is worth in the order of £10,000/acre and therefore sets a benchmark for consideration. However judging viability against the equivalent existing use value on its own does not recognise the need to incentivise landowners sufficiently for them to bring their land to market. It is difficult to accurately predict Alternative Use Values across the full site areas, although given the general location of the sites, they are generally unsuitable for development unless it was for large scale comprehensive redevelopment with associated infrastructure provision. The North Essex Authorities have the sites in the Shared Section 1 on the basis that such an approach is considered the most suitable.
- 5.21 It therefore becomes a judgement as to the prospect of securing values in excess of existing/current values or any realistic alternatives. The Viability Assessment Update has considered the various scenarios and shown under what combination of conditions and circumstances certain scales of uplift can be achieved. The ultimate position cannot be fully predicated at this stage of the process, and ongoing viability review will be needed to test proposals going forward.
- 5.22 The current analysis indicates that the West of Braintree scheme produces strong residual land values under Reference Case scenarios even with the highest consideration of contingencies, with inflation driving far higher values over time.
- 5.23 Tendring Colchester Borders has lower residual land values, and the Reference Case indicates that higher contingencies would start to drive these down albeit still comfortably in excess of Existing Use Values. Should the current Housing Infrastructure Fund bid be successful this would bring the site to a far stronger position. As per West of Braintree, inflation would also generate strong residual land values.
- 5.24 Delivery of the 21,000 unit Colchester Braintree Borders is demonstrated to not generate sufficient land values under present day costs and values and without investment support to implement strategic infrastructure. Should the Housing Infrastructure Fund bid (or any future equivalent opportunity) be successful this would bring the site to a far stronger position. The impact of inflation would be the most significant on this site and has the potential to drive significantly higher returns.
- 5.25 The overall consideration of viability ought also reflect on wider factors which will influence viability, and which may change the outcome over time. Aspects which may depress or enhance viability going forward should be recognised and born in mind when making an ultimate judgement over the potential residual land values that may be achievable and the associated consideration of long term viability. Such further considerations will include:

- The impact of any property market downturn and/or economic shocks which may depress sales values and/or reduce market demand and the associated build out rate. Historical trend analysis can provide some context to the likelihood and extent of such issues, with the property market over time showing a degree of resilience and growth to overcome time limited market corrections;
- Currently unforeseen or underestimated costs. The schemes are at relatively early stages in terms of technical design and therefore the range and scale of costs may not as yet be appropriately identified. This requires appropriate consideration for potential cost over-runs as well as ongoing adjustments to reflect future occupier/consumer behaviour and technological change (for example influencing movement and associated transport implications). There may also be changes in construction practices which may reduce costs, such as through modular construction which could have a significant impact on future build costs;
- The impact of quality placemaking which may well deliver a value premium over and above values currently assessed. Any enhanced sales values deliver a considerable impact on overall viability;
- Cost or value inflation not being consistent. A relatively prudent approach has been taken within this Viability Assessment Update within the inflation scenarios which assumes value growth matches but does not exceed cost inflation. This is inconsistent with historical data and trends, albeit there can be no assurance that such trends would continue indefinitely into the future. Should sales values outpace costs this will have a significant impact on viability, with the converse also being true;
- The assessments have incorporated the current view on scheme delivery rates, which is in part informed by historical evidence and projects not truly comparable in scale or kind to the sites subject to this study. Any improvements in delivery rates would have a considerable impact on viability through reducing the development programme and overall financing costs. Site promoters are likely to intend to deliver the sites at a faster rate than as assumed within this study;
- The delivery model itself which may enable more efficient scheme delivery. For example, development may come forward under build under licence / lease arrangements to streamline delivery processes and enable savings such as through tax efficient approaches;
- There have been numerous funding initiatives implemented by Government in recognition that large scale strategic growth has additional challenges, in particular in relation to the need for early funding and delivery of strategic infrastructure. This includes initiatives such as the Local Infrastructure Fund, Large Sites Infrastructure Fund, Home Building Fund and the more recent Housing Infrastructure Fund. Given the importance of improving housing supply, and an ongoing recognition of the significance of delivery from large sites, it is reasonable to anticipate that such

funding opportunities would continue to emerge over time to address any particular challenges as they may occur.

- 5.26 In conclusion, this Viability Assessment update report provides a comprehensive review of the current viability position across the sites and addresses the key issues and matters raised through the Examination in Public. It sets out the range of scenarios and resulting residual land values to enable consideration of viability. It does not provide one overall definitive position, as the outcomes will be heavily influenced by a range of alternative approaches and assumptions. It does however illustrate that the sites can be considered viable by generating residual land values well above existing & alternative use values under a range of situations and scenarios which are considered to be rational and reasonable.



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